## Allegheny College Catalogue 2011-2012

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## Our Mission

Allegheny's undergraduate residential education prepares young adults for successful, meaningful lives by promoting students' intellectual, moral, and social development and encouraging personal and civic responsibility. Allegheny's faculty and staff combine high academic standards and a commitment to the exchange of knowledge with a supportive approach to learning. Graduates are equipped to think critically and creatively, write clearly, speak persuasively, and meet challenges in a diverse, interconnected world.

## Statement of Community

Allegheny students and employees are committed to creating an inclusive, respectful and safe residential learning community that will actively confront and challenge racism, sexism, heterosexism, religious bigotry, and other forms of harassment and discrimination. We encourage individual growth by promoting a free exchange of ideas in a setting that values diversity, trust and equality. So that the right of all to participate in a shared learning experience is upheld, Allegheny affirms its commitment to the principles of freedom of speech and inquiry, while at the same time fostering responsibility and accountability in the exercise of these freedoms. This statement does not replace existing personnel policies and codes of conduct.
(Approved by faculty vote, April 20, 2007)

## Allegheny's Educational Objectives

Allegheny exists to provide students with a liberal arts education of high standards. We expect our graduates to be capable and farsighted leaders and rational and responsible citizens equipped to meet the challenges confronting all society. We expect them to value diversity, individual integrity of thought and action, and the importance of personal rights and freedom in the context of society as a whole. We expect them to know that the same complexities that create the problems and challenges of living also give life its richness.
Allegheny believes that among all possible forms of education, liberal arts and science education best develops individual potential. It enables participants to experience and enjoy life to the fullest, enabling the mind to encompass all aspects of the world. Among other benefits, liberal arts education broadens the kinds of careers, interests, and activities that can be-and are likely to be-pursued. It develops and encourages the use of the imagination, in the creative sense and for solving problems of everyday life. It promotes understanding of others' aspirations and feelings toward the foundation of constructive relationships.
To provide such an education, Allegheny aspires to this academic goal: to develop students' minds and teach them how to learn on their own. While factual knowledge is important, no one can master in four years all that is needed for a lifetime. Most important is engaging students in an active learning process that entails not only comprehending facts, but also taking responsibility for their proper use.

Thus, our general liberal arts objectives are to educate students as follows:

## To master the use of language.

Educated persons can read critically, analyze their own and others' thoughts in a logical fashion, organize and synthesize ideas into coherent bodies of thought, and write and speak clearly and effectively.

To know, enjoy, and participate in human accomplishment.
Whatever the realm or medium-the social sciences, natural sciences, or humanities; art, music, drama, dance, sport, or some form of writing-humans have created elegant ways of expressing and recording their feelings, thoughts and deeds. An educated person has studied these in depth, sees the interrelationships among them, and enjoys and finds expression in them. Educated persons also recognize the importance of spirituality, and their understanding of the past enhances their appreciation and awareness of the present.

## To know and use available resources.

An educated person is not prevented from taking action for want of information and tools. He or she is comfortable with technology and knows how to use it in conjunction with the resources provided by libraries, archives and similar institutions.

To think and act in a morally, ethically and socially responsible way.

The values of educated persons begin with respect and love for fellow humans, for all other living things, and for the environment we all share. Study of a variety of disciplines and the connections among them helps bring these values into focus. By discussing ideas, events, and issues from several perspectives, we support these values and develop confidence to act on their behalf. Educated persons have the courage, as well as an obligation, to argue for what is right and to stand by their convictions.

Allegheny provides an environment in which these goals should be attained concurrently. We realize them through the academic programs leading to a bachelor's degree and through the extracurricular activities in which students are encouraged to participate. The principal components of an Allegheny academic program and the benefits of each are discussed in the section titled "The Academic Program."

## Facts About the College

## General Information

## 

Private, coeducational college of 2,100 students ( $55 \%$ women, $45 \%$ men) from 45 states and 33 countries. Founded 1815-32nd oldest college in the U.S.

United Methodist Church; students of all faith traditions are welcomed and respected

565 -acre campus, including a 283 -acre nature reserve and a 203 -acre outdoor recreation complex. Located two hours from Pittsburgh, Cleveland and Buffalo in Meadville, Pennsylvania (metro area population of 30,000 )

Middle States Association of Colleges and Schools

## Students and Faculty


596 students; 74\% ranked in top 25\% of high school class
High schools represented.............................................................. 387
From outside Pennsylvania ...........................................................49\%
Minority/international students .................................................. 17\%
Living on campus........................................................................ 100\%
१०० ED
Full-time faculty............................................................................ 157
Ph.D. or other terminal degree .................................................. 95\%
Student-to-faculty ratio ............................................................... 12:1
Average class size ............................... introductory, 21; advanced, 12
Classes with fewer than 30 students ............................................ 88\%

## Academic Program


More than 900 combinations of majors and minors; major/minor requirement; options to double major, double minor; option to selfdesign a major or minor

Bachelor of Arts, Bachelor of Science
(anaman
Promotes individual responsibility and integrity

Education; engineering; management; nursing; occupational therapy; osteopathic medicine; physical therapy; physician assistant

## Details of Distinction

## 

Students take courses in each division of knowledge-humanities, natural sciences and social sciences-declaring both a major and a minor (outside the division of their major).

## 

Every student participates in a four-year seminar series that focuses on written and oral communication skills as well as academic and career advising. The sequence begins with the Freshman Seminar, led by a professor who also serves as the student's faculty advisor.

## 

Allegheny students put theory into practice under the guidance of faculty mentors through research, conference presentations, coauthored articles, and faculty-led study tours.

## 

Each student completes the Senior Project, a significant piece of original, scholarly work that demonstrates the ability to work independently, analyze and synthesize information, and write and speak persuasively.

ACCEL combines services and programs including career development, community service, international programs, preprofessional advising and leadership training.

## Student Life <br> 

Undertake internships
Participate in community service $\qquad$ Over 60\% (30,000 hours) Enroll in independent study course 43\%

Faculty members lead annual Travel Seminars; Allegheny sponsors study away programs in the U.S. and abroad

Over 100 clubs and organizations: academic, athletic, artistic, community service, government, media, outdoor, religious, social

Member of the NCAA Division III and the North Coast Athletic Conference (NCAC); 21 men's and women's intercollegiate sports; extensive club, intramural and outdoor recreation opportunities

## Outcomes

## 

$90 \%$ complete their degree in four years; $45 \%$ go on to graduate or professional school directly; typical graduate school acceptance rate (including pre-law and pre-med) is $80-100 \%$; $92 \%$ of job-seeking graduates are hired within 8 months of graduation

## Academic Calendars

## 2011-2012 Academic Calendar

## 2011 Fall Semester

Aug. 27
Aug. 28
Saturday

Aug. 30
Sep. 1
Oct. 15-18
Nov. 23-27
Dec. 14
Dec. 17-21

Sunday
Tuesday
Thursday
Sat. - Tues.
Wed. - Sun.
Wednesday
Sat. - Wed.

Residence halls open for new students Matriculation
Residence halls open for upperclassmen
First day of classes
Fall Break
Thanksgiving Break
Last day of classes
Final Examinations

## 2012 Spring Semester

| Jan. 15 | Sunday | Residence halls open |
| :--- | :--- | :--- |
| Jan. 18 | Wednesday | First day of classes |
| Mar. 17-25 | Sat. - Sun. | Spring Break |
| May 1 | Tuesday | Last day of classes |
| May 4-8 | Fri. - Tues. | Final Examinations |
| May 11 | Friday | Baccalaureate |
| May 12 | Saturday | Commencement |

## 2012-2013 Academic Calendar

## 2012 Fall Semester

Aug. 25
Aug. 26 Saturday

Aug. 28
Aug. 30
Oct. 13-16
Nov. 21-25
Dec. 12
Dec. 15-19

## 2013 Spring Semester

Jan. 13
Jan. 16
Mar. 16-24
April 30
May 3-7
May 10
May 11

Sunday
Wednesday
Sat. - Sun
Tuesday
Fri. - Tues.
Friday
Saturday

Residence halls open for new students
Matriculation
Residence halls open for upperclassmen
First day of classes
Fall Break
Thanksgiving Break
Last day of classes
Final Examinations

Residence halls open
First day of classes
Spring Break
Last day of classes
Final Examinations
Baccalaureate
Commencement

## The Academic Honor Code

## The Academic Honor Code

The academic honor program at Allegheny College is designed to promote individual responsibility and integrity in academic affairs and to develop an atmosphere conducive to serious independent scholarship. The Honor Program operates under the following Honor Code:

## Article I

The Honor Program shall apply to all work submitted for academic credit or to meet non-credit requirements for graduation at Allegheny. This includes all work done in class (examinations, quizzes, and laboratory work), all papers, and any other material so designated by the instructor. All students who have enrolled in the College will work under the Honor Program. The College assumes that the integrity of each student and of the student body will be upheld. A primary responsibility of each student of the College is the maintenance of honesty in one's own academic work. In addition, it is the moral obligation of each student to help maintain the integrity of the entire College community.

## Article II

By virtue of matriculation in the College, each student acknowledges the following:
I hereby recognize and pledge to fulfill my responsibilities, as defined in the Honor Code, and to maintain the integrity of both myself and the College community as a whole.

## Article III

1. If one student observes another committing what appears to be an act of dishonesty in academic work, it is the observer's responsibility to take the appropriate action. Students are encouraged to inform either the instructor or a member of the Honor Committee. However, whatever action the observer takes must fulfill the obligation to uphold the integrity of the College community. Failure to do so is as injurious to the honor of the College community as is the observed act of dishonesty and constitutes an infraction of the Honor Code.
2. The following practices are considered to be violations of the Honor Code in examinations, tests, quizzes, and in laboratory and computing exercises: any attempt to receive or to give unauthorized assistance from written, printed, or recorded aids, from any person, or from another's work.
3. Plagiarism is defined as using the ideas or words of another without citing the sources from which the ideas or words are taken. In takehome examinations, papers and reports, the following must be carefully observed:
a. Any sequence of words taken verbatim from another source not original with the student must be enclosed in quotation marks, and its source fully and accurately identified. Such material must be quoted accurately.
b. Any sequence of words taken verbatim from any other work of the student must be enclosed in quotation marks and its source fully and accurately identified. (See Section 4.)
c. Where the ideas of another are paraphrased or interpreted, quotation marks cannot be used. In these cases, the student must fully and accurately cite the source. In additon, the language and sentence structure must be that of the student and not of the original source author. While each instructor who assigns a paper,
report, or examination may direct students to a particular style for footnote and bibliographic documentation, the rules noted above must be followed. Ignorance here or in any other part of the code is no excuse.
4. No work submitted for one course may be submitted also for another course except with the explicit approval of both instructors.
5. Instructors are expected to explain their policies regarding help received in any assigned work for their course to each class at the start of each semester, preferably including the material in a printed syllabus for the course. However, it remains the student's responsibility to know and understand these policies.

## Article IV

1. Tests and examinations at Allegheny need not be proctored. Instructors may remain in the room or in a nearby room, but must remain in the building to be available to answer questions that may arise during the course of the examination.
2. Examinations are confined to the building in which they are given. Students shall have freedom of movement within that building.
Students may not leave the building or take materials related to the exam into the restrooms unless explicitly permitted to do so by the instructor, or unless the instructor declares that the test may be written at home or other parts of the campus. Additionally, exams may not be taken behind a locked door. It is the student's responsibility to ensure that the door to the room remains unlocked during the entire exam.
3. Regardless of where the test or examination is taken, the student is responsible for obtaining any changes or corrections. Instructors are not under obligation to search out students to provide this information. Furthermore, the exam must be handed in at the time requested.
4. In recognition of the responsibilities of the Honor Program, a student, when submitting a test or paper, shall sign both the pledge and full name in signature. If a student neglects to do this, the instructor must notify the student and allow an opportunity for signing the paper. Moreover, work is not to be considered as graded until the pledge and signature appear.
(Revised Spring 2009)
The Honor Committee educates the College community and investigates alleged violations of the Honor Code. This self-perpetuating committee, in fulfillment of its responsibilities, complies with all provisions of the Student Code of Conduct. The failure of any section of the Honor Code to comply with documents superseding it shall not negate the remaining sections. Any section(s) of the Honor Code may be amended by a two-thirds vote of the Honor Committee, after consultation with the Dean of the College and the Dean of Students.
The members of the Honor Committee explain the Honor Code to entering students during Orientation Week. Acts of dishonesty are to be reported to the Honor Committee. Information on reporting procedures can be obtained from materials distributed by the Honor Committee or by contacting the Office of the Dean of Students. The names of the members of the Honor Committee may be obtained from the Office of Dean of Students and the Residence Hall Staff.

## The Curriculum

As a liberal arts college, Allegheny has as its first concern intellectual growth. The curriculum and graduation requirements are designed to provide educational depth as well as intellectual breadth.
The College supplements the wide range of courses and programs offered locally with cooperative and special arrangements that increase the choices available to students. Faculty advisors working with their advisees usually find themselves consulting this section more often than any other part of the Catalogue. Much here pertains to the educational life of every student on campus, though other points come into play only under special circumstances. The next section, "Courses of Instruction," deals with what Allegheny offers. This section deals with how the College operates; each student should know these requirements and regulations.

## Divisions

The academic departments and interdisciplinary programs of the College are classified in divisions as follows:

## Humanities

Art, Communication Arts, Dance and Movement Studies, English, Modern and Classical Languages (includes Chinese, French, German, Latin, and Spanish), Music, Philosophy and Religious Studies.

## Natural Sciences

Biochemistry, Biology, Chemistry, Computer Science, Environmental Science, Geology, Mathematics, Neuroscience, Physics.

## Social Sciences

Economics, Environmental Studies, History, International Studies, Political Science, Psychology.

For the purposes of the College Graduation Requirements, courses offered by Women's Studies and Interdisciplinary Studies are considered to be outside all three divisions.

## Graduation Requirements

The Graduation Requirements are designed to provide all students with diverse learning opportunities, as well as with depth in more than one area. Every student must complete work in each division of the College.

To receive a degree from Allegheny, students must complete the following requirements:

1. The First-year/Sophomore Requirement
2. The Major Requirement
3. The Minor Requirement
4. The Distribution Requirement
5. The Senior Project Requirement
6. The Credit Requirement
7. The Grade Requirement
8. The Residency Requirement

## The First-year/Sophomore (FS) Requirement

All students are required to take three FS courses in the first two years: FS 101, 102, and 201. The FS program encourages careful listening and reading, thoughtful speaking and writing, and reflective academic planning and self-exploration. These courses provide opportunities to
develop communication and research skills useful for generating, exploring, defending, and challenging ideas. This background prepares students to succeed in the Junior Seminar and Senior Project that are required in the student's major. Taken together, the FS program, Junior Seminar, and Senior Project ensure that all Allegheny graduates are equipped to think critically and creatively, to communicate clearly and persuasively, and to meet challenges in a diverse, interconnected world.

## The Major Requirement

All Allegheny students must complete a major (the "graduation major") consisting of a minimum of 36 semester credit hours of coursework in the major program, including the Junior Seminar and Senior Project. Students may choose to take more than 48 credits in a department, but no more than 64 credits from any one department may count toward the 128 credits needed for graduation. Students must achieve a minimum grade point average of 2.0 in the major.
Students electing majors in addition to the graduation major must fulfill all requirements for each program. Each major must contain at least 20 credits not counted in another major or minor.

After consulting with their current advisors, students should select a major advisor and declare a major and minor by the end of the sophomore year. Students who will have 48 or more credits by the end of their current semester will not be permitted to register for the next semester until they have declared a major and a minor. Appropriate forms may be obtained from the Office of the Registrar.

## Departmental Majors

Seventeen departments at Allegheny offer at least one major; several offer two or more. Three interdisciplinary majors also are available, providing 30 choices in all:

Art
Art History
Art and Technology
Studio Art
Biochemistry
Biology
Chemistry
Communication Arts

Communication
Theatre
Computer Science
Applied Computing
Computer Science
Economics
English
Environmental Science
Environmental Science
Environmental Studies
Geology
$\quad$ Environmental Geology
Geology
History
Mathematics
Modern Languages

French
German
Spanish
Music
Philosophy
Physics
Political Science
Psychology
Religious Studies

## Interdisciplinary Majors

International Studies
Neuroscience

## Double Majors

Students electing double majors must fulfill all requirements for each of the two programs. The student must receive approval from both major advisors to register for classes. A student completing two majors may choose to complete a single senior project that integrates both disciplines or two separate senior projects, one in each discipline. In the former case, the Senior Project must be evaluated by faculty from both programs. The degree awarded (B.S. or B.A.) corresponds to the major listed first on the student's major declaration.
When a second major is used to fulfill the College Minor Requirement, each major must contain at least 20 credit hours that do not also count toward the other major. At least 12 of these 20 credit hours in the second major must be outside the division of the first major.

The appropriate department chairpersons and a faculty advisor from each department must approve the double major. A decision regarding the type of Senior Project should be noted on the approval form when it is returned, even though changes may be made later with the approval of the departments and the individuals involved.

## Student-Designed Majors

Students at Allegheny may design their own majors in cases where their academic, personal, and professional interests are not met by the combinations of majors and minors available in the standard curricula. The Self-Designed Major must embody the educational objectives of Allegheny College, match the rigor and scope of existing major programs, and be true to the vision of the Liberal Arts as intellectual, academic, and civic preparation for life. In conjunction with their advisors, students create a plan of study that reflects compelling intellectual connections between departments, allowing for the student to synthesize multiple bodies of knowledge. Students pursuing a SelfDesigned Major must complete a Senior Project that functions as a culmination of the student's interdisciplinary study. The Senior Project should directly contribute to the student's expressed academic goals and must be evaluated by faculty from more than one department.

Qualifying students who wish to propose a Self-Designed Major should do so using the forms available from the Registrar's Office. To submit a proposal, students must have a 3.0 semester GPA for the two semesters prior to the proposal submission, and must submit their proposal by the end of the 7th week of their 5th semester at Allegheny College.
The student's proposal should clearly articulate the intellectual goals for the plan of study and should provide a compelling case for how the proposed major fulfills those goals in ways not otherwise available through either double majors or other major/minor combinations. The major must include a minimum of 50 semester credit hours. The proposal should address how each course (including the Junior Seminar, the Senior Project, and potential study abroad, internship, or indepen-
dent study opportunities) fits together to create a coherent and viable program of study. The program must show a progression to higher-level courses and include significant work at the 300 - and 400 -level. A selfdesigned major may not count more than 4 credits of internship or independent study, or more than 16 credits of transfer credit (e.g. from a study abroad program) towards the 50 credit requirement.

A self-designed major requires a great deal of care in its design. The primary responsibility for the proposal rests with the student. Faculty are critical to the student's success, however, particularly in the planning and development stages. All proposals for Self-Designed Majors must be accompanied by a faculty evaluation letter from the advisors for the proposed majors that assesses the intellectual and academic cohesiveness of the proposed plan of study as well as its commensurability with the goals of a Liberal Arts education.

The complete proposal will be evaluated by the Curriculum Committee, which will ultimately grant or deny permission based on the quality of the proposal and the academic viability of the plan of study. Any subsequent changes to the program must be approved by the Curriculum Committee.

## The Minor Requirement

All Allegheny students must complete a minor (the"graduation minor") consisting of at least 20 credits of coursework. At least 12 of these credits must lie outside the division of the graduation major. Students whose graduation major requires courses from more than one division should consult the major description to determine the division of the major and options for fulfilling the minor requirement. Students must achieve a minimum grade point average of 2.0 in the minor. Courses may not be counted for both the graduation major and the graduation minor.

The minor requirement can also be satisfied by a second major. When a second major is used to fulfill the College Minor Requirement, each major must contain at least 20 credit hours that do not also count toward the other major. At least 12 of these 20 credit hours in the second major must be outside the division of the first major. Interdivisional majors may take any minor or any second major to fulfill the requirement.

Students electing minors in addition to the graduation minor must fulfill all requirements for each program. Each additional minor must contain at least 12 credits not counted in another major or minor. Forms for declaring a minor may be obtained from the Office of the Registrar.

## Departmental Minors

The requirements for these minors are defined by the department and described in "Courses of Instruction":

| Art | Mathematics |
| :--- | :--- |
| Art History | Modern and Classical Languages |
| Studio Art | Chinese |
| Biology | French |
| Chemistry | German |
| Communication Arts | Latin |
| Communications | Spanish |
| Theatre | Music |
| Computer Science | Philosophy |
| Dance and Movement Studies | Physics |
| Economics | Astronomy |
| English | Physics |
| English | Political Science |
| Environmental Writing | Psychology |
| Writing | Religious Studies |
| Geology | Women's Studies |
| History |  |

## Interdisciplinary Minors

The requirements for these minors are included in this Catalogue under the "Interdisciplinary Programs" heading in "Departments and Programs":

American Studies Latin American and Caribbean Art and the Environment Asian Studies

Black Studies
Chinese Studies
Classical Studies
French Studies
German Studies

Studies
Lesbian, Gay, Bisexual and Transgender Studies
Medieval and Renaissance Studies
Science, Health and Society
Values, Ethics and Social Action
Women's Studies

## Multiple Minors

Students electing to do more than one minor must fulfill all requirements for each program. Each minor must contain at least 12 credits not counted toward any other major or minor.

## Student-Designed Minors

A student may propose a Self-Designed Minor outside of the existing departmental and interdisciplinary minors. A Self-Designed Minor must be comparable in academic rigor and integrity to a conventional minor, must offer sufficient depth of study, and cannot be a subset of an existing minor. A minimum of 24 semester credit hours is required. A minor must include coursework at or above the 300-level not including independent study or internship credit. No more than 4 credits of transfer and independent study credit can be applied to the minor. Students who wish to propose a self-designed minor should do so no later than the end of their $6^{\text {th }}$ semester at Allegheny by using the forms available from the Registrar's Office. The proposal must be approved by faculty from the two departments most represented in the minor and by the Curriculum Committee.

## The Distribution Requirement

All Allegheny students must take at least two courses (eight semester credit hours) in the division least represented in the major and minor. AP courses may not be used to satisfy distribution. It is recommended that this requirement be completed by the end of the second year.

For students who do not major or minor in the natural sciences the distribution credits must include at least one laboratory course in Biology, Chemistry, Computer Science, Environmental Science, Geology, or Physics.

Students should be aware that Math 159 (Precalculus) does not count toward the Distribution requirement. In addition, some courses in the Environmental Science Department count for distribution in the Social Science division and not the Natural Science division - see the "Environmental Science" section of the Catalogue for information on specific courses.

## The Senior Project Requirement

All students must complete a Senior Project in their majors. A student completing two majors may submit one Senior Project that integrates both disciplines and is evaluated jointly by faculty from both programs, or two separate Senior Projects, one in each program. In all cases, the Senior Project must satisfy the standards of evaluation in each department. Students completing integrated Senior Projects should work closely with faculty from both programs.

Since the College's first commencement in 1821, Allegheny students have showcased their exceptional academic achievements through a senior capstone experience of one kind or another. At times it involved an oral defense, at others a written thesis. The notion of a written

Senior Project coupled with a comprehensive oral examination first appeared in the 1942 College Catalogue. In the 1970s, oral examinations shifted from a general defense of disciplinary expertise to a more focused verbal presentation of the Senior Project findings.

In keeping with Allegheny's commitment to provide students with a liberal arts education of high standards, the Senior Project is not a mere report or semester paper, but a significant piece of independent study, research or creative work conducted under the supervision of one or more faculty members. The outcome of a Senior Project is more than a grade or a written document; for the student it often results in a new way of looking at complex problems and inspires an appreciation for the power of ideas that might previously have seemed like abstract concepts in a textbook. Often it can be a pivotal moment where a student realizes his or her own abilities and potential.

The Senior Project provides students with an opportunity to integrate discipline-specific scholarship with the communication and research skills necessary for professionals in the 21st century. During their first year at Allegheny, students write, speak, and research frequently in their first-year seminars. By the sophomore year, they are ready to undertake the complexities of writing and speaking in a specific discipline. They further hone these disciplinary communication skills in a junior seminar, the final preparatory phase for the Senior Project. By the senior year they are sufficiently prepared to undertake a scholarly endeavor approximating those experiences they will face as professionals in their field.

The culminating experiences of the Senior Project are as varied as the disciplines that produce them, from recitals, performances, and exhibits to written and oral presentations on laboratory research. Many departments provide open forums for seniors to present their projects, allowing students to refine their skills in presenting discipline-specific information to a broad audience and providing a model for the communication skills required of informed professionals in a global society.

## Principles Regarding Research

All regular academic courses, all independent study courses including senior projects, and all internships involving research with human participants will be conducted in an ethical manner. Proposals for study will be reviewed in advance by appropriate departmental and/or College review boards to ensure that this will be the case. In all instances the health, safety, and welfare of the individuals involved will be protected. Participation in such research or classroom projects will be by informed and voluntary consent, in accordance with accepted and appropriate general and disciplinary research guidelines. All research subjects will be given full clarification of the nature of the study. The laws of the nation, state, and community will be respected, and care will be taken that interpersonal relationships within the College community are not abused.

## The Credit Requirement

Each student must successfully complete 128 semester credit hours. These shall include courses taken to meet the first-year/sophomore requirement, the major requirement, the minor requirement, the distribution requirement, and the Senior Project requirement, as well as elective courses.

Students may take an unlimited number of credits in all departments, but no more than 64 credits from any one department will be counted toward satisfying the 128 -credit graduation requirement.

## The Grade Requirement

A cumulative grade point average of at least 2.0 is required for graduation from the College. Descriptions of the grading system and the
academic standing requirements are found in the sections "Academic Regulations and Policies" and "Academic Standing."

## The Residency Requirement

The residency requirement is satisfied upon completion of 64 semester credit hours "in residence." Of these, a student's final 16 semester credit hours before graduation must be taken in residence. Work in residence is undertaken through registration at Allegheny and supervision by Allegheny faculty, who evaluate the student's performance. Students are not required to live on campus or in Meadville to satisfy the residency requirement.

## Curricular Options

## Internships

Undergraduate internships are available through academic departments for students with appropriate backgrounds. These internships are designed to serve two major purposes: first, to provide an opportunity for study and experience outside the traditional setting of classroom and laboratory, yet within the framework of disciplined inquiry; and second, to provide a special opportunity for the participants to refine their emerging professional-career interests. Some established internships are briefly described under sponsoring departments. Interested students should contact the listed faculty liaison for greater detail; not all internships are available each semester.

Registration for internships must be completed during the semester or summer session prior to participation in the internship; see Internship Registration under "Academic Regulations and Policies" for details.

## National and International Study Programs

Allegheny recognizes the enormous value of off-campus study and is proud to offer a variety of programs and services to its students in order to facilitate participation in such opportunities. Allegheny students have studied in almost every corner of the world through programs that lasted only two weeks to programs that lasted almost a year. Detailed information regarding all off-campus study programs may be found on the web at: www.allegheny.edu/accel/international/studies, or at International Programs and Services, ACCEL, Reis Hall 200.

## Allegheny-Sponsored Programs

The term "Allegheny-sponsored program" indicates that Allegheny participants in these programs are charged Allegheny rates for program costs, and Allegheny financial aid, with the exception of work-study, can be applied to program costs. The program fee always includes tuition; if the program fee includes room and board, students will be charged Allegheny room and board rates (the room charge is the double room rate, and the meal plan charge is "Plan C"). Depending on the program, student may pay for room and board directly to the host institution.

## International Programs

- Allegheny-in-Cologne, Germany (fall semester only)

Students and faculty from Gettysburg College and Washington and Jefferson College join Allegheny students and faculty in this language and area studies program; college level German required; students live with host families.

- American University in Cairo

This program provides students with the opportunity to enroll in regular university courses in Egypt in all majors offered at Allegheny
all while developing or improving their Arabic language skills. Students have the option of living on or off-campus with their peers from over 113 countries around the world.

- Arava Institute for Environmental Studies at Kibbutz Ketura, Israel Students from an array of Middle-Eastern countries study and work together; program taught in English focuses on environmental issues, including ecology, conservation, technology, politics, religion, art, psychology and economics.
- Boston University, Paris Internship Program, France

Program students take French area studies courses together for seven weeks, then engage in internships related to their major for seven weeks; college level French required.

- Capital Normal University

This program is designed primarily to solidify Allegheny students' competence in Chinese Language and provide a semester-long opportunity to familiarize oneself with Chinese culture and society. Students are housed in the Jasper Hotel, an international student dormitory, which provides a cafeteria, cafe, laundry facilty, kitchen, gym, indoor swimming pool, business center, and mini-cinema.

- Center for Cross-Cultural Study in Seville, Spain

Program students take area studies and language courses together; meet Spanish university students through translation program; college level Spanish required; students live with host families.

- CIEE Study Center at FLACSO in Buenos Aires, Argentina In this program, students will take specialized courses at FLACSO in a variety of disciplines taught by experts in various academic fields, and taught exclusively to CIEE students. In addition, students are required to enroll in direct enrollment courses within academic departments and faculties at the Universidad de Buenos Aires (UBA), the Pontificia Universidad Catolica Argentina (UCA), and the Instituto Universitario Nacional de Arte (IUNA). This arrangement allows CIEE students to combine the specialized, more personalized "think tank" atmosphere of FLACSO with the vibrant and challenging Argentine university life of UBA, UCA, and IUNA. Given the acknowledged excellence of the faculty and the wide range of course offerings, the CIEE program is suitable for students with very strong language skills. All courses are taught in Spanish.
- CIEE at the Monteverde Tropical Biology Institute, Costa Rica Program students engage in a structured curriculum and field experiences taught in English centered around tropical biology and ecology.
- Eberhard-Karls-Universität Tübingen, Germany

Program students take intensive German language courses, then enroll in area studies courses for foreign students and/or regular university courses in most majors offered at Allegheny; college level German required.

- ITESM, Campus Querétaro, Mexico

Students may enroll in language and area studies courses for foreign students or regular university courses in some majors offered at Allegheny; college level Spanish required; students live with host families.

- James Cook University, Townsville, Australia

Students enroll in regular university courses in all majors at Allegheny; housing is in on-campus halls.

- Keio University

Two different study tracks are available at the International Center at Keio University. Accepted students can choose to enroll in either the Keio University International Program or the Japanese Language Program. The Keio International program offers core courses taught in English in combination with Japanese Language Courses intended to
improve students' speaking, listening, reading and writing skills. The Japanese Language Program is intended for those students interested in developing or improving their Japanese language skills while learning more about the society and culture of Japan.

- Lancaster University, Lancaster, England Students enroll in regular university courses in all majors at Allegheny; housing is in on-campus halls.
- L'Université Catholique de l'Ouest in Angers, France

Program students may take intensive language courses, or enroll in both area studies courses for foreign students and/or regular university courses in some majors offered at Allegheny; college level French required; students live with host families.

- Center for Sustainable Development (SFS), Costa Rica Program students live and work together; courses taught in English focus on ecological, social, and political aspects of sustainable development; one semester of Spanish required.
- St. Peter's College, Oxford University, Oxford, England Junior Year Abroad; direct enrollment in major subject; students live in college.
- Minnesota Studies in International Development

Field placement/internship programs in Quito (Ecuador), Jaipur (India), Nairobi (Kenya), Dakar (Senegal); program students enroll in language, area studies, international development courses for eight weeks, then participate in eight week (or additional semester) internships in grassroots organizations, local government or field stations.

## National Programs

- Duke University Marine Lab, Beaufort, North Carolina Through Allegheny's membership in Duke University's Marine Sciences Education Consortium (MSEC), juniors may spend fall semester at the Beaufort marine station and/or participate in the spring program split between Beaufort and the Bermuda Biological Laboratory. The major designation on student transcripts will be annotated "with an emphasis in the Marine Sciences" upon completion of at least 16 semester hours of coursework at Duke.
- The Philadelphia Center

This program is a unique and valuable 16 -week program in the fall or spring semester that allows undergraduates to engage in critical investigations of their own abilities, objectives, and values in order to help discover their personal and professional direction in life. It combines city living seminars, academic electives, and internships

- The NY Arts Program

This program has two main goals: to provide advanced experience and knowledge in highly focused arts areas (primarily through the apprenticeships) and to provide a broadened knowledge of all the arts as practiced in New York through the Area Studies. It is a unique combination of seminars and internships based on the Visual, Performing, and Media Arts.

## - Oakridge Science Semester

This is a Fall semester only program running from late August until Mid-December. The Oak Ridge Science Semester (ORSS) enables students to join ongoing investigations at the Oak Ridge National Laboratory (ORNL) in research areas as diverse as astrophysics, cell biology, DNA sequencing, genetic mutagenesis, parallel computing, robotics, toxicology, and much more.

- Washington Semester at American University, Washington, D.C. Program students enroll in one of 12 tracks (e.g., politics, justice, law, journalism, economics) and also complete an internship relating to their academic focus.
- Woods Hole Marine Biological Laboratory, Massachusetts Intensive studies in terrestrial and aquatic ecosystems in a premier research institution.


## Independent Programs

Students participating in "independent programs" will pay program costs (e.g., tuition) directly to the program in which they are participating. Allegheny financial aid is not applicable to independent programs; however, most state and federal aid can be applied. Students going on independent programs are responsible for notifying the Office of Financial Aid in order to make arrangements for the transfer of state and federal aid (e.g., student loans).

Each student who participates in an independent off-campus program will pay an $\$ 800$ off-campus study fee per semester.

## Application Process

The application process for fall and spring semester programs is as follows: 1) Allegheny approval All students interested in off-campus study must file for approval by September 20 for the following spring and February 20 for the following fall (the Oxford program follows the September 20 deadline). In order to be approved for off-campus study, the students must submit a letter of approval for program participation from their academic advisor, an information form (including an essay closely relating the program of choice to the student's major, minor or other academic goals), and unofficial transcripts. They must also meet specific program eligibility requirements and meet the filing deadline.

## 2) Pre-departure orientations

ALL students approved for off-campus study (national and international programs, Allegheny-sponsored and independent programs) must attend the pre-departure orientations. Program applications are distributed, and information about issues such as credit transfer; travel; safety and responsibility; program goals; and cross-cultural learning is discussed.
3) EXL 300 Off-Campus Study

Students on Allegheny-sponsored programs are required to enroll in EXL 300 Off-Campus Study, a one-credit course that comprises activities, readings, and assignments that are completed for the meetings prior to departure and upon return to campus. The focus of the course is cross-cultural learning and communication.

## EL Seminars

Allegheny also offers summer national and international programs. These are generally three-week, for-credit "EL-Seminars" led by Allegheny faculty and administrators. The seminars offered during summer 2011 included destinations such as Germany \& Denmark, Greece, Italy, Turkey and South Africa. Summer 2012 seminars will be announced in September 2011. Students must be approved the faculty leaders and ACCL in order to participate. The application deadline is December 1. See detailed information at http://sites.allegheny.edu/elseminars/

## Cooperative Programs

Cooperative programs (sometimes called 3-3, 3-2, or 3-1 programs) with other educational institutions enable Allegheny students to acquire a solid liberal arts background while accelerating their progress toward
professional training and certification. Allegheny has formal agreements with several institutions to offer cooperative programs in Allied Health Professions, Engineering, and Public Policy and Management. Most of these require the successful completion of 98 semester credit hours at Allegheny before beginning course work at the cooperating institution. Students who want to participate in cooperative programs must complete Allegheny's Graduation Requirements, including the minor outside the division of the major and the courses identified for an approved major. There are additional specific departmental course requirements for cooperative programs, and students should consult with the appropriate program liaison person about them when planning their course of study.

Satisfactory completion of the stated Allegheny requirements and the cooperating institution's requirements earns the student the bachelor's degree from Allegheny and the specified degree or certification from the cooperating institution.

A student enrolling in a cooperative program will be assessed a maintenance fee payable to Allegheny for each year in which the student is enrolled at a cooperating institution. This fee, payable before final processing of the application can be completed, is $\$ 50$ for two years at a cooperating institution, or $\$ 25$ for one year. The maintenance fee helps offset the costs of special record maintenance, correspondence, and transfer credit.

Students who elect to complete any of the programs that involve three years of work at Allegheny and additional years at a cooperating institution should schedule an exit interview with the Director of International Programs and Services early in their final semester at Allegheny. During the interview, the student will file an exit agreement in which the cooperating institution and the expected date of graduation are specified. Because work at the cooperating institution is evaluated as transfer credit, official transcripts showing that the student's work at the second institution has been satisfactory must be received before the Allegheny degree is awarded.

The cooperative programs approved by the faculty are outlined below by interest area. Please contact the Director of Pre-Professional Studies, Reis Hall, and the faculty or staff liaison persons listed under specific program headings for information on how to participate in any of these programs.

## Allied Health Professions

The following cooperative programs are available:

- Nursing $(3+3,3+4)$ with the Frances Payne Bolton School of Nursing of Case Western Reserve University
- Occupational Therapy (3+2) with Chatham University
- Physical Therapy $(4+2)$ with Chatham University
- Physician Assistant Studies (3+2) with Chatham University

In all cases, students complete their first three years at Allegheny. In the case of physical therapy the degree is DPT and the undergraduate degree must be completed prior to starting graduate studies.

Admission to all of the programs is competitive and the existence of a cooperative agreement does not guarantee admission. The programs with Chatham University have specific criteria for guaranteed admission and guaranteed interview. Students are encouraged to see the Director of Pre-Professional Studies in ACCEL for these details as well as for the forms required of all students planning a cooperative program.

Students must complete the standard requirements of a major, a minor, FS courses, and distribution courses in order to obtain the Allegheny degree. Certain combinations of majors and minor work especially well to satisfy both Allegheny requirements and the prerequisite course work for the graduate program. Students are encouraged to consult with the

Director of Pre-Professional Studies in their first year for this information. Careful planning is critical to success in these programs.

## Engineering

Five engineering programs entail three years at Allegheny and further study-usually two years-at a cooperating institution. At the conclusion of study, the student receives a bachelor's degree from Allegheny and a Bachelor of Science in Engineering degree from the cooperating institution. Programs have been arranged with the following institutions:

- Columbia University School of Engineering and Applied Science
- Case Institute of Technology at Case Western Reserve University
- Pratt School of Engineering at Duke University
- University of Pittsburgh School of Engineering
- Washington University School of Engineering

Most programs require that students maintain a " B " average overall and in the sciences. For these universities, acceptance to the cooperating institution is contingent upon the recommendation of the student's major department at Allegheny. For some of the engineering departments, enrollment is limited by the engineering school. Similar arrangements may be made with engineering programs at other institutions with the approval of the faculty.

An alternative cooperative program with Columbia provides for earning the bachelor's degree at Allegheny in the usual four years and the Master of Science in Engineering degree after two additional years at Columbia. This program requires substantial academic performance in Allegheny coursework and is available in most engineering fields. Students should consult with the advisor in their major field and with Professor Willey of the Physics Department for specific program requirements.

## Public Policy and Management

Carnegie Mellon University's H. John Heinz III School of Public Policy and Management offers an accelerated master's program to qualified Allegheny College students. The program, structured as three years at Allegheny College followed by three to four semesters at the Heinz School (depending upon program), allows students to earn both a bachelor's and a master's degree in less time than is normally required. The following cooperative programs are available:

- Master of Science in Public Policy and Management (MSPPM)
- Master of Science in Health Care Policy and Management (MSHCPM)
- Master of Arts Management (MAM)
- Master of Information Systems Management (MISM)

Students pay tuition and fees to Allegheny College from their freshman through junior years. They pay tuition and fees to Carnegie Mellon for their graduate program, either three or four semesters beyond the completion of the junior year, depending upon program. Allegheny students also will be responsible for paying a maintenance fee to Allegheny while enrolled at Carnegie Mellon in their senior year.

Students will receive both the bachelor's and master's degrees upon completion of their graduate program at Carnegie Mellon. Allegheny College will count units taken during the master's program toward the student's bachelor's degree according to its policies and procedures. The Heinz School will forward to Allegheny College transcripts and other necessary information on student academic performance.

Allegheny College students are eligible for scholarship support from Allegheny College for their freshman through junior years. They will be eligible for scholarship support from the Heinz School for the length of their graduate program and can apply to any and all Heinz School scholarship funds for which they are eligible (based on program and the individual scholarship fund's specific requirements).

## Pre-Professional Programs and Advising

## Pre-Health Professions

Allegheny students preparing for health professions schools-in medicine, dentistry, veterinary medicine-use their major and elective courses to create precisely the programmatic balance that professional schools seek out, and that leads to success in professional school itself. Elements of such a program include: a strong foundation in the natural sciences (in or outside the selected major), highly developed communication skills, a solid background in the humanities and social sciences, study in depth (in any major field that is personally stimulating), and independent study and research (including the Senior Project).

Guidance in considering career options and preparing for professional school is just as important to undergraduates as the strength of the courses available. Consequently, Allegheny maintains an active Health Professions Advisory Committee, headed by the Health Professions Advisor. This advisor functions in addition to the student's academic advisor, and focuses specifically on pre-health concerns. Advising begins in the first year to assure that students are taking the appropriate courses in a timely fashion and are maintaining appropriate grades.

The Committee assists students with applying to professional schools through workshops, test preparations and interviews. A Committee Letter of Recommendation supplements the recommendations received from individual faculty members, and it carries special weight. Other Committee services include assistance in exploring the health professions through internships, externships, guest lectures, and campus visits by representatives of health professions schools.

Further information about the pre-health professions program is available from the ACCEL Office of Pre-Professional Studies in Reis Hall.

## The Jefferson Program

Under the Physicians Shortage Area Program (PSAP), certain Allegheny students who intend to practice in underserved rural areas may qualify for preferential admission to Jefferson Medical College in Philadelphia, as well as special premedical advising from Jefferson faculty. Qualifying students have rural or small-town backgrounds or family ties and intend to practice in non-metropolitan areas, preferably in Pennsylvania. Allegheny is one of six Pennsylvania colleges and universities whose students are afforded special consideration as PSAP applicants, of whom a maximum of 24 are admitted to the program each year.
Linkage Program with Drexel University College of Medicine Each year up to two Allegheny students are offered early assurance of admission to Drexel University College of Medicine if they meet certain criteria. These criteria include a GPA of 3.5 or better with no grade less than a "C," MCAT scores of 9 or higher in the verbal section and 10's or better in the science sections of the MCAT, and the recommendation of the Health Professions Advisory Committee. Candidates who qualify will interview at the College of Medicine in June and gain early acceptance. Qualified students are encouraged to have early contact with the medical school and should see the Health Professions Advisor in ACCEL for further details.

## Cooperative Programs in Health Professions

Cooperative programs with other educational institutions enable Allegheny students to acquire a solid liberal arts background while accelerating their progress toward professional training and certification. Allegheny has formal agreements with several institutions to offer cooperative programs in Physical Therapy, Nursing, Occupational Therapy, and Physician Assistant Studies. Please see the Cooperative Programs section for details.

## Pre-Legal Studies

Allegheny students preparing for law school receive advice, information, and guidance from two Pre-Law Advisors (one a faculty member, the other a career services professional). The advisors sponsor programs, speakers and trips pertaining to legal careers and graduate study, and assist in arranging internships as well as job shadowing opportunities. Annually, the advisors provide an information session on the Law School Admission Test (administered on campus two times per year) and help with the law school application process.

Allegheny's curriculum is especially well suited to preparation for law school. Students may design the sort of broad-based program recommended by law schools themselves, with these crucial outcomes: ability to handle abstract ideas; strong analytic and reasoning skills; writing and speaking ability; and appreciation of the values of civilization. Especially important are the breadth of understanding and thinking skills developed in the First-Year/ Sophomore Seminars, the skills for in-depth study developed in the major of the student's choice, and the capacities developed by the Senior Project, such as reasoning and expository skills and the ability to work independently.

Approximately two-thirds of Allegheny's pre-law students major in one of three disciplines: Political Science, History or English. Next in popularity are Psychology and Economics, with other majors distributed evenly among the natural and social sciences and the humanities. Law school admissions committees encourage undergraduates to major in a discipline that interests and excites them.

Further information about the pre-law program is available from the PreLegal Advisors: Michaeline Shuman, Director of Career Services/ACCEL or Assistant Professor Harward of the Political Science Department.

## Business Administration

Allegheny has a direct admissions agreement with the William E. Simon Graduate School of Business Administration at the University of Rochester. Under this agreement, the Simon School gives selected Allegheny students preferred admission to the graduate school. Students are normally selected by the end of their junior year for admission the year following graduation.

## Teacher Preparation

Allegheny students interested in pursuing a career in education can earn teacher certification and a Master of Arts in Teaching (MAT) degree through one of Allegheny's partner institutions: Columbia University Teachers College or the University of Pittsburgh. Students may also earn an MEd through our partnership with Xavier University. Under each program, students complete four years at Allegheny with a major and a minor in academic disciplines and then complete their teacher preparation at the graduate level in a streamlined program at one of the partner institutions. Applicants to the programs must maintain a 3.0 overall grade point average and meet the admission requirements of each graduate school.

Students who are interested in either of these programs should contact Kirsten Peterson, Director of Pre-Professional Studies in ACCEL, early in their academic careers in order to coordinate their Allegheny coursework with the partner institutions' requirements.

## Academic Resources-The Learning Commons

Allegheny's Learning Commons, located in Pelletier Library, is dedicated to helping students thrive at all stages of their college careers by providing:

- individual assistance and workshops on writing, speaking, technology,
research, critical reading, effective study, and time management
- peer tutors in a variety of subjects
- support for students with disabilities and arrangements for accommodations for students with all types of documented disabilities
- print and electronic resources to help students hone their academic skills

For more information about the Learning Commons, to pick up a tutoring schedule, or to make an appointment, visit our office, call 332 2898, or visit our website at http://learningcommons.allegheny.edu

## Academic Regulations and Policies

## The Semester Calendar

Allegheny divides the academic year into two semesters of 15 weeks each. A month-long break, beginning in late December, separates the semesters. Vacations occur during October, over Thanksgiving and in the third week of March.

During semesters, classes typically meet two or three times per week for periods of 75 or 50 minutes. Associated laboratories are usually scheduled separately, although they may be scheduled at the regular class time if appropriate. Class times and examination periods for all courses to be offered is made available electronically to all students prior to Registration via WebAdvisor.

## The Credit System

Most courses receive four semester credit hours, and they are designed to require no more than one-fourth of a student's time. Some courses may receive one, two, or three semester credit hours.

## Course Load

The usual academic load is 16 semester hours in each semester and 32 semester hours for the year. Students may take up to 20 semester hours per semester without special permission.

## Class Standing

A student is considered to be a first-year student from the date of matriculation until the semester following completion of the 28th semester hour, when the student becomes a sophomore. A student becomes a junior in the semester following completion of the 60th semester hour, and a senior in the semester following completion of the 92 nd semester hour.

## Final Examinations

The schedule of examinations is published with the schedule of courses on the Registration Web page. Students are expected to arrange their travel and vacation plans in accordance with the examination schedule. Requests for changes in examination times should only be made in the most extraordinary circumstances; approval must be received from the department concerned.

## Grading System

Student grades are reported on either a letter basis or Credit/No Credit basis.
Letter Grades

| A $\quad 4.00$ grade points - Excellent | C- $\quad 1.70$ grade points |  |
| :--- | :--- | :--- |
| A- 3.70 grade points | D $+\quad 1.30$ grade points |  |
| B +3.30 grade points | D | 1.00 grade points - |
| B $\quad 3.00$ grade points - Good |  | Passing |
| B -2.70 grade points | F | 0.00 grade points - |
| C +2.30 grade points |  | Failure |
| C 2.00 grade points - Fair | W | Withdrawal |
| Credit/No Credit |  |  |
| CR Credit |  |  |

A 4.00 grade points - Excellent
A- 3.70 grade points
B + 3.30 grade points
B 3.00 grade points - Good
B - 2.70 grade points
$C+2.30$ grade points
Credit/No Credit
CR Credit

The following notations are also used in reporting student work:

| GP | Grade Pending |
| :--- | :--- |
| L | Leave of Absence granted during the semester |
| IN | Incomplete |
| WC | Withdrawal from the College during semester |

## Grade Changes

By Faculty vote, changes in course grades are allowed only in the case of a demonstrable mathematical error in the compilation or recording of a grade. All such grade changes must be approved by the Dean of the College.

## Credit ("CR")/ No Credit ("NC")

Students may take up to four credit hours per semester on the Credit/No Credit basis, but may not present for graduation more than 16 credit hours of their coursework on this basis.

If students wish to take a course on the Credit/No Credit basis, they must obtain their advisor's approval and submit a signed CR/NC card to the Registrar's Office by the end of the second week of classes for 14week courses or, for seven-week courses only, by the end of the second week of the module. Students are cautioned that some courses may not be taken using this option. Courses not eligible for the Credit/No Credit system are so indicated in their course descriptions in the section entitled "Courses of Instruction."

Credit, "CR," will be awarded for course performance equivalent to, or higher than, a passing letter grade, "D." No credit, "NC," will be awarded for course performance equivalent to a failing letter grade,"F."

## Grades of Incomplete

Faculty stipulate grades of Incomplete ("IN") when they believe that extenuating circumstances preclude completion of the work on time by the student. The student is responsible for providing evidence for the extenuating circumstances to the satisfaction of the faculty member, who has sole authority to grant the Incomplete. Incompletes are awarded with the expectation that the work will be completed by the student in a timely fashion. When instructors submit a grade of Incomplete, they must also submit the grade that will be awarded should no further work be submitted by the student. The instructor should formulate a plan for timely completion of the incomplete work, and this plan should be addressed in the Academic Performance Report the instructor submits explaining the Incomplete grade and specifying a tentative grade.

Examples of circumstances in which the Incomplete is appropriate include, but are not limited to, serious illnesses or injuries that preclude a student from finishing work for a course; cases where the course grade depends on the outcome of an Honor Code hearing; or death of an immediate family member. An Incomplete should not be assigned when a student simply fails to turn in a final exam or project, nor when there is little likelihood that the student will be able to make up a large quantity of incomplete work (due, for example, to prolonged illness); in the latter case a Withdrawal (see below) may be more appropriate.

After appropriate consultation with the student, the instructor will determine the date by which incomplete work must be completed. In all cases, the work must be completed no later than 30 days after the first day of classes of the semester or summer session in which the student is next registered. Students who have an "IN," but do not register in a subsequent semester or summer session, must complete the work within 12 months. Extensions to these deadlines may only be granted by the Dean of the College or designee. If no information is provided by the instructor by the end of the 12 months, the grade that was originally submitted at the time the "IN" was assigned is posted to the transcript.

When the instructor submits the completed grade to the Registrar, this completed grade is posted to the transcript and calculated into the grade point average for the semester in which the student was registered for the course. If no completed grade or other communication is received by the Registrar from the faculty member, the grade that was originally submitted at the time the "IN" was assigned is posted to the transcript and calculated into the grade point average.

## Withdrawing from a Course

If, as a result of extraordinary extenuating circumstances, a student wishes to withdraw from a course after the appropriate course registration change period has expired (see "The Change Period," below), the student may ask the instructor to grant a Withdrawal. A Withdrawal can only be granted to a student whose performance has been significantly affected by unexpected circumstances beyond the student's control. For example, a Withdrawal may be granted in the event of a prolonged serious illness, or if there is a serious and incapacitating change in a student's family situation. A Withdrawal cannot be granted simply for poor academic performance or failure to attend class. The student is responsible for providing evidence of extraordinary extenuating circumstances to the satisfaction of the faculty member, who has sole authority to grant the Withdrawal. When such a request is granted, the student's transcript will show a grade of "W." This grade will not be included in the calculation of the student's grade point average.

## Repeated Courses

With the exception of the First-Year/Sophomore Seminars, students may repeat courses at Allegheny, provided the courses are offered again. Whenever a student repeats a course, the academic record and transcript will reflect all course enrollments and the grade earned for each enrollment. From the time of completion of a repeated course forward, only the credit and grade for the most recent attempt will be counted in computing grade point averages. If, however, a student withdraws from a repeated course, the academic record and transcript will include the withdrawal, and the grade previously earned will continue to be counted in computing grade point averages. Students may repeat a course initially taken on the graded basis for Credit/No Credit; however, Credit ("CR") must be earned or the grade previously awarded will continue to be counted in computing grade point averages. In the event a student receives a grade of Incomplete ("IN") for a repeated course, the grade previously earned will continue to be counted in computing grade point averages until such time as the student completes the coursework and a final grade has been submitted.

## Transfer of Courses

Transfer credits must be approved by the Office of the Dean of the College and, if they apply toward the student's major or minor, by the department concerned. To be acceptable for transfer credit, a course must be taken in residence at a regionally accredited institution and be of a liberal arts nature. It should not duplicate any course already taken or which the student plans to take at Allegheny, and a letter grade of "C" or higher must be earned. Correspondence courses and on-line courses are not acceptable for transfer credit. Transferred course credits count toward the graduation requirement of 128 semester hours, but the grades for such courses are not included in the student's academic average. The Allegheny transcript does not indicate the grades of transferred courses.

The number of credits that can be transferred toward the undergraduate degree is limited by the residency requirement applicable to the individual student. Residency requirements also place limitations on the way in which students may chronologically schedule transfer courses
and courses taken in residence as they work to complete the undergraduate degree. For more complete information, see the section on page 9 entitled "The Residency Requirement."

Transcripts received from other accredited institutions are evaluated by the Office of the Dean of the College as promptly as possible. Students desiring to have work completed at other institutions considered for transfer credit should arrange to have official transcripts or other appropriate documents forwarded to Allegheny College as soon as the grades are posted. No transfer credit can be awarded until the appropriate documents have been received by the College.

## College Credit for Prior Coursework

Allegheny can accept a maximum of 32 credits from first time freshmen for work completed prior to matriculation. This includes Credit by Examination (see below), credit obtained for college-level courses offered at high schools by accredited colleges and universities, which is treated as transfer credit, and transfer credit for work taken in residence at accredited colleges and universities. See Transfer of Courses, above.

Students who wish to receive credit for college-level courses offered at high schools or who are now considering taking college or university courses elsewhere should contact the Office of the Registrar for advice about transfer credit and/or selection of courses.

## Credit by Examination

Students may earn college credit at Allegheny by participating in the Advanced Placement Program (AP) of the Educational Testing Service, the College-Level Examination Program (CLEP), and the International Baccalaureate (IB) testing programs. Students may receive credit by examination for a maximum of 20 semester credit hours (five courses).

Students who receive scores of four or five on an AP examination will receive academic credit. Placement will be determined by the appropriate department. AP credit and course placement are considered only after receipt of official examination scores from the Educational Testing Service.

Individuals who perform well on certain CLEP tests may receive both credit and placement, usually at the first-year or sophomore levels. Departments, in consultation with the Office of the Dean of the College, periodically establish which credits may be earned by standardized testing. Students who score five or better on the higher examinations of the IB testing programs may be granted credit and placement by some departments.

## Course Registration

The normal process of preregistration for continuing students is online through WebAdvisor during the published preregistration period. Using WebAdvisor, advisors may grant approval for advisees to register. Once students have obtained advisor permission, they may register for courses electronically. For certain courses, a student may be required to obtain a signed registration card from the instructor to register for a course. First-year students register for fall semester courses during the summer advising period for new students.

Students may complete or change their registration during the College course change periods by submitting the approved registration cards. Students must complete their registration for all courses for which they seek credit by the end of the change period. Students who are currently enrolled in an approved study abroad or visiting student program should consult with their advisor and the Registrar. Students granted a Leave of Absence who have notified the Office of the Registrar of their intent to register in person may also register during the registration period. Other re-entering and transfer students may register for the fall semester during Orientation Week in August.

## The Change Period

Students may add 14 -week courses through the first two weeks of the semester. Students may drop 14-week courses through the first five weeks of the semester. Students may add seven-week courses through the first two weeks of the module in which the course is offered; they may drop seven-week courses through the first three weeks the module is offered. To add or drop any class, students must submit a completed change of schedule card to the Registrar's Office by the deadlines published in the Registration Guide. Students intending to add a class must secure the written permission of the instructor and notify their advisor; those wishing to drop a class must notify both the instructor and advisor. Students should be aware that, after a class starts, instructors will become increasingly reluctant to admit additional students. Courses dropped will not appear on the official transcript but will appear, as appropriate, on the academic record.

## Internship Registration

All students seeking academic credit for an internship must obtain faculty approval and must register for the internship during the semester or summer session prior to beginning the internship experience. Approval of academic credit will not be granted for internships in progress or following their completion. The student's transcript will reflect internship enrollment for the semester or summer session in which the student actually participates in the internship experience. Students may present a maximum of eight semester credit hours of internship credit within the first 128 semester credit hours needed for graduation.

Information on possible internships is available in the Office of Career Services. Students interested in participating in an internship experience that is not listed as a departmentally sponsored internship should consult with their academic advisors and the Office of Career Services.

## Academic Records and Reports

## Grade Reports

At the conclusion of the Fall and Spring Semesters, student grade reports are available on the student's WebAdvisor account. Students may request additional copies of their grade reports to be sent to designated person(s) by signing an Academic Records Release form available in the Office of the Registrar.

## Transcripts and Student Records

A transcript is a copy of the official permanent student record that indicates attempted courses by title and number and the grades earned for those courses together with an explanation of the Allegheny grading system. The Office of the Registrar has responsibility for maintaining these records and for making copies of them available as transcripts. When current students wish official transcripts to be sent to other institutions, prospective employers, or themselves, they must submit a signed, written request to the Office of the Registrar and remit a fee of $\$ 2$ for each official transcript requested. Students who have graduated or withdrawn pay a fee of $\$ 5$. Such requests must indicate the name and address of the person or institution to whom the transcript is to be sent as well as formal permission to release their record. Official transcripts bear the seal of the College, and they are signed and dated by the Registrar. No transcripts are released from the day grades are due from the faculty for each semester for current students until the day that all grades have been posted.

Unofficial transcripts are available to students and their advisors through the College's WebAdvisor web page. These transcripts do not bear the College's seal and are intended only for use in scheduling classes and advising students.

## Academic Standing

## Academic Standards and Awards Committee

The Academic Standards and Awards Committee is responsible for reviewing the academic records of Allegheny students and, when appropriate, assigning an individual student to a particular Academic Standing category. By matriculating at Allegheny, students recognize the right of the Committee to determine their Academic Standing.

The membership of the Academic Standards and Awards Committee includes Allegheny faculty, students, and those administrators who assist students experiencing difficulty in their college work. All actions concerning academic standing are taken after careful analysis of the individual student's level of achievement, aptitudes, study efficiency, and sense of purpose. At the end of each semester the Committee reviews the records of all students whose semester or cumulative grade point averages render them subject to one of the following Academic Standing Categories. Decisions to dismiss students from the College for poor academic performances are made by majority vote of the faculty members of the Committee.

## Grade Point Average

The cumulative grade point average includes all graded Allegheny courses, but does not include courses taken under the Credit/No Credit option or courses in which the student received an Incomplete or a "W." When a course is repeated, the credits and grade for the most recent attempt will be counted in the current cumulative average.

## Academic Standing Categories

## Academic Warning

Academic Warning is assigned to students who have two consecutive semesters with a semester average below 2.0 , but whose cumulative grade point average remains above 2.0. Students remain on Academic Warning until they achieve a semester grade point average over 2.0.

## Academic Probation

Academic Probation is assigned to students at the conclusion of the first semester in which the cumulative grade point average falls below 2.0. Students remain on Academic Probation for one semester, at the end of which the student may be subject to dismissal or placed on Poor Academic Standing if the cumulative average remains below 2.0.

## Poor Academic Standing

Students are placed on Poor Academic Standing if they have two or more consecutive semesters with a cumulative grade point average below 2.0 and if they have not been dismissed by the College. All students not on Poor Academic Standing are considered to be in good academic standing.

Students in their first semester at Allegheny College who receive a G.P.A. of 1.0 or below are eligible for academic dismissal as discussed below. If not dismissed, these students are placed on Poor Academic Standing and are subject to the following requirements: 1) to meet with a representative from the Learning Commons; and 2) to work with that representative to create a plan to improve their academic performance. Students may also be required to enroll in no more than 12 credits during the next semester. Please note that students on Poor Academic Standing can not participate in varsity athletics until their cumulative G.P.A. rises to a 2.0 and are not permitted to become members of the College Greek system until their G.P.A. meets the requirements outlined for Greek chapters.

## Academic Dismissal

Students placed on Academic Probation or Poor Academic Standing, and whose cumulative grade point average remains below 2.0 at the conclusion of their next semester at Allegheny, are subject to dismissal from the College. Dismissal is for a minimum of one calendar year. Students whose grade point average is 1.0 or below at the conclusion of their first semester of attendance at Allegheny are also subject to dismissal from the College. Dismissal in this case is for a minimum of six months, and students will be placed on Poor Academic Standing upon their return. Students who are dismissed are prohibited from taking Allegheny courses until they are readmitted to the College.

Dismissed students seeking readmission should submit a written request to the Registrar's Office by May 1 for a fall term readmission and November 1 for a spring term readmission. Students are encouraged to contact the Registrar's Office prior to these deadlines for assistance in preparing the request for readmission. If a student who has been readmitted to the College after dismissal fails a second time to achieve the minimum standard, the student may be dismissed for a second time A student who is dismissed twice for poor academic performance may not apply for readmission. The second dismissal may occur at the conclusion of any semester subsequent to readmission, provided the cumulative average does not rise above 2.0.

## Appeals

Academic Warning, Academic Probation, and Poor Academic Standing are determined by grade point average and are not subject to appeal.
Appeals of Academic Dismissals are considered only under the following circumstances: the student must submit a written request within seven calendar days after the postmarked date of the written notification of dismissal, the request must contain new and pertinent information not available to the student at the time of the original committee decision, and this new information must have a direct bearing on the student's poor academic performance. Appeal petitions that meet the above criteria may be directed to the Chair of the Academic Standards and Awards Committee and should clearly set forth the grounds for reconsideration.

## Transcript Notation

Academic Dismissal is noted on the transcript; Academic Warning, Academic Probation, and Poor Academic Standing are not.

## Academic Assistance

The College has many resources to assist students experiencing academic difficulty, including help in identifying tutors and developing study skills. Students should visit the Learning Commons for assistance. See also "Academic Resources - The Learning Commons" elsewhere in this Catalogue.

## Leaves of Absence

Students may apply to the Office of the Dean of Students for a Leave of Absence when personal circumstances make a temporary absence advisable and a commitment to return to the College is evident. The length of the leave is determined by the student's needs, but normally will not exceed one calendar year. Students may be granted leaves from the College without grade penalty up until the last day of classes in any semester. Depending on the circumstances, a leave may be arranged during or between semesters. However, students on a leave may return only at the beginning of an academic semester. When a student is granted a Leave of Absence during the semester, the course registration remains on the transcript and the notation " L " is assigned instead of a letter grade.
During a Leave of Absence, the general deposit required of all students
is maintained on account; when applicable, financial aid and course registration arrangements are held for the student's return. Students on leave should contact the Office of Residence Life to make arrangements for on-campus housing. Students also may register for the next semester in person during the designated registration period. Students must inform the Registrar of their intent to participate in registration.

Students considering a Leave of Absence must consult their advisor and others, as appropriate, about the effect it will have on progress toward a degree, financial aid, and billing. Tuition and board refunds for Leaves of Absence are governed by the provisions set forth in this Catalogue under "Refund Policy."

## Leaves of Absence for Health Reasons

1. In some instances, the College may require a Leave of Absence for Health Reasons, which would supersede a voluntary Leave of Absence or voluntary Withdrawal. A member of the Winslow Health Center staff, Counseling Center staff and/or the Dean/Associate Dean of Students may recommend a Leave of Absence for Health Reasons at any time it is deemed reasonably necessary to protect the student, other students, members of the College community or the interests of the College itself.
2. A Leave of Absence for Health Reasons may be required if any of the following health situations arise:
a) A student is a danger to himself/herself or others because he/she attempts or threatens suicide or homicide or a student engages in a behavior that threatens or could cause bodily harm to himself/herself or others.
b) A student refuses or is unable to cooperate with a recommended evaluation or treatment procedure and acts or threatens to act in a manner that would interfere with or disrupt the normal activities of others.
c) A student refuses or is unable to cooperate with a recommended evaluation or treatment procedure and is thought to be in danger of significant physical or psychological deterioration.
d) A student is thought to need treatments that are beyond those available at the College, and there is the danger of significant further physical or psychological impairment.
e) A student is thought to need treatment services that are beyond those available to the community; the availability and appropriateness of such services will be determined by the Counseling Center staff and/or the Health Center staff.
3. Upon recommendation of a member of the Health Center staff and/or the Counseling Center staff, the Dean/Associate Dean of Students will make the final decision regarding approval of a required Leave of Absence for Health Reasons. The nature of the situation may require the decision to be prompt; the student will be given the verbal notification of the decision as soon as possible and written notification within three days.
4. The student has the right to meet with the Dean/Associate Dean of Students, Winslow Health Center staff, and/or Counseling Center staff. The purpose of this meeting would be to discuss the factual basis of the incident or incidents related to number two of this section.
5. The student has the right to appeal to the Dean/Associate Dean of Students for an independent review/evaluation and recommendation by a mutually acceptable health professional (e.g., physician, psychologist, psychiatrist). The student may initiate an appeal, in writing, any time within three days of
receiving written notification of the decision
6. The length of any Leave of Absence for Health Reasons will be determined on a case-by-case basis depending upon the nature of the reason(s) for the leave.
7. See "Leave of Absence" for details regarding transcripts, registration, financial aid, housing, and refund policies. A Leave of Absence for Health Reasons will be handled under the same guidelines.
8. When a student who has been on a required Leave of Absence for Health Reasons wishes to return to the College, he or she must apply to the Dean/Associate Dean of Students in writing. The student will not be permitted to return to the College until the appropriate College staff member(s) provide validation. If the student is approved to return, Winslow Health Center or Counseling Center staff members may make recommendations to the Dean/Associate Dean of Students regarding conditions of the return and/or continued enrollment. The student will receive written notification of any conditions. It is suggested that written application be postmarked no later than July 1 for the Fall Semester or December 1 for the Spring Semester.

## Withdrawal from the College and Readmission

Students desiring to withdraw from the College must complete the withdrawal form available from the Office of the Dean of Students. In order to receive a deposit refund, students must withdraw according to the following deadlines: July 1 for the Fall semester; by one week prior to the first official day of classes for the Spring semester. Students may withdraw from the College without grade penalty up until the last day of classes in any semester. When a student withdraws from the College during the first five weeks of the semester, 14 -week courses will not appear on the official transcript, but, as appropriate, will appear on the academic record. Students who withdraw from the College between the conclusion of the fifth week of the semester and the last day of final examinations will receive the grade of "WC" for all courses for which they are registered. This will not affect their grade point average.

Students who do not resume study at the opening of any semester are withdrawn from the College by action of the Dean of Students.

Students who withdraw may return to the College by notifying the Office of the Dean of Students no later than July 1 for the fall semester or December 1 for spring semester. A re-entering student is required to pay the $\$ 400$ deposit at the time he or she notifies the Office of the Dean of Students of the date of return.

When students re-enter, they shall be governed by the academic requirements applicable to the class of which they become a part, with the exception that the total number of credits required for graduation is that specified for the class with which they originally matriculated at the College.

Students who withdraw from the College are expected to leave the campus within 48 hours. They lose all privileges of enrollment until such time as they are readmitted. Tuition and board refunds for withdrawal are governed by the provisions set forth in the Catalogue under "Refund Policy."

## Honors

## Alden Scholars

Students who, in the course of a year (September to September), complete a minimum of 30 semester credit hours and achieve a grade point average of 3.20 or higher are designated as Alden Scholars. Students who achieve a grade point average of 3.80 or higher receive special recognition. Grades of Credit and No Credit are not considered
in making Alden Scholar designations. However, credit hours earned for grades of Credit do count toward the minimum hours required for Alden Scholars. For students studying abroad for the full year, the grades submitted by the foreign institution will be used whenever possible. However, the grades will be evaluated within the context of the foreign institution's grading system, and other pertinent data will be taken into account in each case. For students who study abroad for one semester, Alden Scholar eligibility for that year will be determined by considering both the Allegheny record and the grades from the foreign institution. At least 16 semester credit hours must be completed during the semester at Allegheny.

Students named as Alden Scholars during their senior year and/or at any time during their undergraduate career are recognized in the Commencement program at the time of graduation and on their academic record.

## Doane Scholars

Each year up to 30 students from the sophomore, junior, and senior classes are honored as Doane Distinguished Scholars. These students have earned the highest cumulative averages in their respective classes and are awarded a prize and a medal, and they receive recognition in the Commencement program and on their academic record. The 30 annual awards are made possible through the generosity of the late Mrs. Sandra Doane Turk.

## Graduation Honors

Students who have achieved a cumulative grade point average of 3.90 , with at least 64 semester credit hours taken at Allegheny and evaluated on the letter-grade basis, may be awarded their degrees sumта сиm laude. Students who have achieved a cumulative grade point average of 3.70, with at least 64 semester credit hours taken at Allegheny and evaluated on the letter-grade basis, may be awarded their degrees magna cum laude. Students who have achieved a cumulative grade point average of 3.50 , with at least 64 semester credit hours taken at Allegheny and evaluated on the letter-grade basis, may be awarded their degrees cum laude. Whether awards are finally made will depend upon the total academic record of the student, including his or her compliance with the College Honor Code and vote of the faculty. The sanction of Probation, Suspension, or Expulsion received for academic violations will disqualify a student from consideration for Latin Honors.

## Major Field Honors

At the conclusion of the senior year, students who have done distinguished work in the major field may be awarded honors in that field. Honors in a student-designed major will be awarded upon the decision of a committee consisting of the members of the Curriculum Committee and the individual student's academic and senior project advisors.

## Phi Beta Kappa

Phi Beta Kappa, a national honorary scholastic fraternity founded in 1776, has had a chapter at Allegheny since 1902. Members are elected from the senior class on the basis of scholarship and moral character. The breadth of a student's program, as shown by high achievement in a variety of courses taken outside the major field of study, is a factor in election. Elections and initiation into the society take place twice each academic year. In the fall, students who have demonstrated exceptionally distinguished academic achievement through the sixth semester are elected and initiated at the beginning of their senior year. In the spring, other academically outstanding members of the senior class are elected and initiated in a ceremony before graduation. Inquiries about the selection process may be directed to the Office of the Dean of the College.

## Courses of Instruction

Allegheny College offers two degree programs: the Bachelor of Arts and the Bachelor of Science. The Bachelor of Arts degree is earned by completing successfully all college requirements (see "Graduation Requirements"), including a major in one of the following disciplines: Art, Communication Arts, Economics, English, French, German, History, International Studies, Music, Philosophy, Political Science, Religious Studies, Spanish or Women's Studies. The Bachelor of Science degree is awarded when completion of college requirements includes a major in Biochemistry, Biology, Chemistry, Computer Science, Environmental Science, Mathematics, Neuroscience or Physics. Students majoring in Geology or Psychology may earn either a Bachelor of Arts or a Bachelor of Science degree, depending upon course selection and the area of emphasis. Students planning double or student-designed majors that include courses from different disciplines determine the appropriate degree in consultation with faculty.

In addition to special preparation for medical school or law school, the College also offers pre-professional programs in allied health fields, engineering, environmental studies, nursing and teacher certification through cooperative program arrangements.

Courses offered are listed within the department or field. Not all courses are offered each year, and the College reserves the right to cancel or reschedule courses for enrollment, staffing, or other reasons. Changes in staffing may also be necessary. Places in courses cannot be guaranteed other than by the established registration procedures. There may be minor variation in course content or approach from the catalogue course description if the instructor deems it appropriate. The Registration Guide lists the courses to be offered, the semester in which they are offered, and the final examination schedule.

## Classification

Departments and interdisciplinary programs are classified in divisions as follows:

## Humanities

Art, Communication Arts, Dance and Movement Studies, English, Modern and Classical Languages (includes Chinese, French, German, Latin, and Spanish), Music, Philosophy and Religious Studies.

## Natural Sciences

Biochemistry, Biology, Chemistry, Computer Science, Environmental Science, Geology, Mathematics, Neuroscience, Physics.

## Social Sciences

Economics, Environmental Studies, History, International Studies, Political Science, Psychology.

Additional courses that do not fall into one of the three divisions above are offered by the Women's Studies, Interdisciplinary Studies and First-Year/Sophomore Seminar Programs.

## The Credit System

All courses carry four semester hours of credit unless otherwise specified in the description.

## The Numbering System

Courses are numbered as follows:
001-299: Primarily for first-year students and sophomores
190-199: Special topics, primarily for first-year students
and sophomores, offered only once
300-569: Advanced, primarily for juniors and seniors
489: Student-designed seminars

490-499: Special topics, advanced level, offered only once
500-529: Undergraduate Internships
550-589: Seminars
590: Independent Study
An independent study or research experience. The student indepen-
dently pursues a topic or project of interest with guidance from a faculty member. Students meet one-on-one with the faculty mentor on a regular basis and also complete independent readings, laboratory work, or comparable activities. Credit: One to four semester credit hours. Prerequisite: Permission of the instructor.
591: Group Study
Group study or research with faculty guidance. A group of students meets together with a faculty member on a regular basis to pursue a topic in depth. Students typically complete a set of common readings and assignments. Credit: One to four semester credit hours. Prerequisite: permission of instructor.
592: Teaching in the Elementary or Secondary Schools A field experience in education during which students work with teachers and students in elementary or secondary schools. Relevant readings, as well as discussions with the instructor and the supervising teacher, provide the background and context for the fieldwork. Students are required to keep a reflective journal and to complete a culminating project based on their experiences in the classroom. Credit: Two to four semester credit hours. Prerequisite: Permission of the instructor.
593: Peer Mentoring
Structured work to enhance learning by other students who are enrolled in a regular course. To receive academic credit, peer mentors are expected to complete assignments other than those assigned in the course and to reflect on the peer-leadership experience. Credit: One to four semester credit hours. Prerequisite: permission of instructor. 600-699: Senior Project

Professors Schindler, Buck, Carr, Domnick, Geffen, Gilman, Miller, Roland

The department firmly believes that art is fundamental to liberal arts education and that the opportunities provided for the study of artistic forms and concepts reflect the College's commitment to creativity.

The department's major programs are designed to develop a broad intellectual grounding in the traditions of the visual arts through an understanding of studio and art history, coupled with knowledge from other disciplines. Students learn to discriminate between the processes of production, interpretation and evaluation, and to think creatively about all aspects of artistic problem solving. Through the examination and creation of original works of art, students learn to contextualize works of art and understand the relationship between praxis, theory, and history.

Courses in Studio Art, Art \& Technology, and Art History are offered to meet the needs of majors and minors as well as students taking art courses as electives in the Humanities. Our curriculum is designed to be hierarchical in structure. Studio Art and Art \& Technology have breadth in their foundation courses, depth in their media focus requirement and lead students to accept increasing responsibility for the concepts, imagery and media with which they work. Through courses such as the Junior Seminar, Advanced Studio Projects and the Senior Comp, students learn to write about, speak about, research, produce, exhibit and document their work. Students in art history take courses ranging from surveys to specialized courses in historical eras and seminars on methodology. They acquire a knowledge of formal and conceptual analyses of the art object, learn to apply the research principles and critical methodologies of the discipline to specific areas of historical study, and investigate the cultural contexts of world art throughout history.

The modern Bowman, Megahan, and Penelec Art Galleries provide a major exhibition facility for northwestern Pennsylvania, offering a lively and varied exhibition program with an accent on contemporary art. Field trips to the Cleveland Museum of Art, the Albright-Knox Gallery in Buffalo, or the Carnegie Museum of Art, Andy Warhol Museum, and the Mattress Factory in Pittsburgh each provide contact with major art collections. Other resources include a College collection of paintings, prints, drawings and photographs.

## Majors

Students who major in the Art Department select an emphasis in Studio Art, Art History, or Art \& Technology. All emphases must have the approval of the department and lead to the Bachelor of Arts degree. Art majors are required to have a GPA of at least 2.0 in art at graduation. All art courses taken at Allegheny on a letter grade basis are included in the calculation with the exception of repeated courses for which only the most recent grade counts. The Junior Seminar and the Senior Project must be taken on the letter grade basis (except Art 601, which must be taken Credit/No Credit). No more than two art courses may be taken Credit/No Credit.

## Major Emphasis in Studio Art

The Studio Art major emphasis requires the completion of 48-64
semester hours including:
Foundation Courses:
Art 151 Drawing I,
Art 155 The Creative Process or Art 156 Art and the Environment,
Art 261 Sculpture I,
Art 281 Painting I,
Art 171 Photography I or Art 285 Computer Art I

## Art History Courses:

Art 110 Survey of Art History I,
Art 111 Survey of Art History II,
Art 247 Art of the 20th Century or Art 249 Art Since 1945
Media Sequence:
A two-course media sequence from the following (Foundation courses may not be included in the sequence):
Art 165, 265 (ceramics),
Art 285, 385, or 386 (computer art),
Art 251, 255, 351 (drawing),
Art 381, 583 (painting),
Art 171, 271, 583 (photography; 583 may be used only if Art 171 serves as a foundation course),
Art 275, 276, 375 (printmaking; any two of these),
Art 361, 583 (sculpture)
Upper Level Requirements:
Art 580 Junior Seminar (must be taken on the letter grade basis), and Art 600 Senior Project (must be taken on the letter grade basis)

## Recommended Courses:

Art 583 Advanced Studio Projects is strongly recommended, as are additional electives selected from Studio and Art History courses, and

## Major Emphasis in Art History

The Art History emphasis requires the completion of at least 42 semester hours, including the following courses:

Any Studio Art course,
Art 110, 111,
Four 200-level Art History courses (two before 1600, two after 1600),

One 300 or 400 -level course,
Art 582 (or other junior seminar as appropriate),
Art 600 (must be taken on the Credit/No Credit basis),
Art 610 (must be taken on the letter grade basis)
Note that 200 -level Art History courses are offered in a rotating sequence. Students planning to continue their study of the history of art are strongly advised to strengthen their emphasis with proficiency in French or German at the intermediate level. They are also encouraged to supplement their studies with courses in the history and literature of their period of emphasis.

## Major Emphasis in Art and Technology

The Art and Technology emphasis is designed to support students interested in exploring the connections between photography, video and computer art and requires the completion of 48-64 semester hours including:

## Foundation courses:

Art 155 Introduction to Studio Art: The Creative Process or Art 156 Introduction to Studio Art: Art and the Environment,
Art 285 Computer Art I,
Art 171 Photography I,
Com Arts 290 Audio-Visual Production
Art History courses:
Art 110 Survey of Art History I,
Art 111 Survey of Art History II,
Art 247 Art of the 20th Century or Art 249 Art Since 1945

## Media Sequences:

Any two from the following:
Art 385 Interactive Computer Art, Art 386 Web Art, Art 583
Advanced Studio Projects with work in computer art.

## Upper Level Requirements:

Art 580 Junior Seminar (must be taken on a letter grade basis), and Art 600 Senior Project (must be taken on a letter grade basis)

## Electives:

Four credits required to be selected from: Art 151, 165, 261, 275, 276, and 281.

## The Minor

## Studio Art Minor

The Studio Art Minor requires completion of six courses (a minimum of 24 semester hours). This includes: one Foundation course; one Art History course; two courses in an artistic medium (the Media Sequence); one elective studio art course; and the advanced seminar (Art 583). No course can be counted twice.

## Foundation (choose one of the following):

Art 155 - Introduction to Studio Art: Creative Processes
Art 156 - Introduction to Studio Art: Art and the Environment
Art History (choose one of the following):
Art 247-20th Century Art: Images of the Avant-Garde
Art 249 - Art Since 1945: The Road to Modernism

Media Sequence (choose a two-course sequence from one of these areas):
Drawing (Art 151, 251, 255)
Painting (Art 281, 381)
Printmaking (Art 275, 276, 375)
Photography (Art 171, 271)
Sculpture (Art 261, 361)
Computer art (Art 285, 385, 386)
Ceramics (Art 165, 265)
Studio Elective (choose one of these):
One additional studio course from those listed under Media Sequence
Upper Level Seminar Requirement:
Art 583 - Advanced Studio Projects Seminar

## Art History Minor

The Art History minor requires completion of at least 24 semester hours including:

One Studio Art course,
Art 110, 111,
One 200-level course,
One course at the 300 - or 400 -level,
Art 582 (or other junior seminar as appropriate).

## Special Minors

The Art Department offers courses in support of the following special minors: Art and the Environment, American Studies, and Medieval and Renaissance Studies. For specific requirements, check the College's Web Art History Minor pages: http://webpub.alleg.edu/group/interdis/ minors.html.

## Art History Courses

Note: Art History courses encourage familiarity with area museums; and a museum trip is required of students enrolled in Art History courses.

## 110 Survey of Art History I

An introductory survey of Western art from pre-history to the end of the Middle Ages, including significant non-Western artistic traditions in India, China and the Americas before 1500.

## 111 Survey of Art History II

An introductory survey of Western art from the Renaissance to the early 20th century.

## 112 Graphix: Words and Images

An investigation into the myriad relationships between text and image in modern and postmodern art. Students study the uses of words and images in book illustration, graphic design, collage, comic strips and comic books, graphic novels, and contemporary art forms. Topics include art in the service of mass media, the effect of popular culture on the fine arts (and vice versa), and the development of new kinds of narrative forms in modernist and post-modernist art. Student assignments involve in-class discussion, short papers, oral presentations, and group projects. This course is an elective and does not count toward the art department course requirements.

## 211 Art of the Ancient World

A survey of the art and architecture of Greece and Rome from ca. 1500 bce to ca. 300 ce. The social, political, and religious bases of the arts of these ancient cultures is examined together with the cultural crosscurrents from eastern societies such as Egypt, Assyria and Persia that contribute stylistically to their development.

## 215 Medieval Art: Glorious Visions

A topical survey of European art from 1000-1400. Students explore art and architecture of a time when visionary ideals and Christian religious inspiration helped artists depict unearthly realities. Topics will include apocalyptic illustration beginning around the year 1000, the pilgrimage cults of saints and relics, the rise of the great cathedrals, and the development of Gothic style in secular and sacred arts through the year 1400.

## 222 Nature and Society

A survey of art and architecture from its earliest manifestations through the mid-20th century, focusing on our relationship to nature and the built environment. The course will emphasize works of art, literature, theology, philosophy and natural history that provide a context for our ideological understanding of our environment. Possible topics will include Earth, Temple, God and Goddess; City and Country in the Classical World; The City of God vs. The Garden of Eden; Chinese Landscape; Landscape Painting in the West; Our Built Environment.

## 223 Far Eastern Art

A survey of art and architecture in Asia, including Indochina, India, China, Korea, and Japan. Lectures and readings concern such topics as the influence of Buddhism, Hinduism, and Islam on Southeast Asian and Indian art and architecture; the significance of Confucianism and Taoism in Chinese painting; the concept of feng shui as a central precept of Chinese architecture; the impact of European colonialism on Chinese and Japanese culture; the relationship of Japanese and Korean art to Chinese models; and the evolution of Japanese samurai culture in the Momoyama and Edo periods.

## 225 Art of the Italian Renaissance

Lectures and readings in the history of painting, sculpture, and architecture in Italy from 1400 to 1600 . Emphasis is placed on the social and political dynamics of ideas of cultural rebirth during the 15th and 16th centuries.

## 231 Art of the Northern Renaissance

A survey of the major artists of northern Europe from 1400 to 1600 . The course emphasizes the stylistic and technical innovations of northern art as an outgrowth of late Medieval tendencies in the context of social, political and religious changes during the 15th and 16th centuries.

## 236 German Art from the Middle Ages to Today

A survey of German Art from the Middle Ages to the present. Emphasis is placed on the social, political, and religious contexts that contributed to the creation of the art works. Special use is made of the galleries, museums, and the annual Kunstmesse in Cologne to teach the course and to introduce some aspects of the art market. Taught in Cologne, Germany.

## 241 19th-Century European Art: From Academy to Atelier

A topical survey of European art from Neo-Classicism to Impressionism (1750-1880). Students study the evolution of early modernism through lectures and readings. Topics include the life and death of history painting; the rise of landscape painting; social and political issues in the visual arts; the role of gender in the arts; and the growing interaction between mass culture and avant-gardist art.

## 245 American Art and Architecture

A survey of American painting, sculpture, and architecture from colonial times to 1940. Emphasis is placed on the strong, yet ambiguous relationship of American art to European culture and the growth of an American consciousness in the arts.

## 247 20th-Century Art: Images of the Avant-Garde

A topical survey of European and American art from Post-Impression-
ism to Surrealism (1880-1945). Students study the different visions of modernism through lectures and readings. Topics include urbanization and its effect on modernist subject matter; Fin-de-Siècle views of modernist society; technical experimentation in modernist painting and sculpture; utopian concepts in modernist art movements; and alternative art experiences in modernism.

## 249 Art Since 1945: The Road to Modernism

A topical survey of European and American art since the end of World War II. Students study the diversity of contemporary art movements and events through lectures and readings. Topics include the changing conceptions of avant-gardism; the decline of modernism in contemporary society; the role of gender, race, and class in the evolution of postmodernist art; and the interplay between popular culture and the fine arts in post-modernism. Prerequisite: Any Art History course or permission of instructor.

## 330 The Renaissance Woman

A seminar examining women as subjects, patrons and producers of art in the Renaissance period (1350-1550). Art works are analyzed in the context of the Christian tradition, the revival of classicism, and the changing religious and social values of those years. Traditional arthistorical methodologies as well as feminist critical insights are used. Prerequisite: Any 200-level Art History course or permission of the instructor.

## 341 Art in Rebellion

A seminar examining the concept of revolution as an integral part of modern art movements. Students critically examine the notion of the avant-garde through a study of the historical context of modernist movements, including artists' statements, criticism, literature, music, film, and theory. These cultural elements are also placed within a larger social and political framework in order to analyze and assess all the aspects of revolutionary tendencies in modernist discourse. Topics vary, including art as radical politics, the impact of technology on the arts, the concept of anti-art, the experimentation with new art form, and the blurring of boundaries between high art and popular culture. Prerequisite: Art 111.

## 520 Internship: Erie Art Museum

An internship for students with adequate preparation in art history that enables them to become familiar with the operations of an art museum, including day-to-day administration, preparation of special exhibits, and interaction with the professional art world. In addition to duties assigned by the museum, the student keeps a journal and writes a research paper. Special projects can be developed as appropriate to student capabilities and the museum's schedule. The intern is evaluated by the Museum Director and the supervising faculty member. Prerequisite: Approval of the faculty advisor and Museum Director. Credit: One to four semester hours.

## 523 Internship: Gallery or Museum

An internship that enables students to become familiar with the operations of an art gallery or an historical museum, including day-to-day administration, preparation of special exhibitions, and interaction with the professional gallery and museum world. In addition to duties assigned by the gallery or museum personnel, the student keeps a journal and writes a research paper. Special projects can be developed as appropriate to student capabilities and the institution's schedule. The intern is evaluated by the Gallery or Museum Director and the supervising faculty member. Credit: One to four semester hours. Prerequisite: Approval of the faculty advisor and Gallery or Museum Director.

## 582 Seminar: Art History

Junior Seminar. Seminar discussions and written assignments on problems and methods in the history of art in preparation for the development of senior research topics. Required of all majors and minors in Art History. Must be taken on the letter grade basis.

## 600 Senior Project I: Art History

Preparation of a proposal, thesis, and preliminary bibliography for the Senior Project. Credit/No Credit grade only. Credit: Two semester hours. Prerequisite: Art 582 or permission of instructor.

## 610 Senior Project II: Art History

Completion of a research project in art history approved by the department. Prerequisite: Art 600. Must be taken on the letter grade basis.

## Studio Courses

## 151 Drawing I

An introductory course in drawing, including a variety of mediums and projects to develop discernment in observation, skill in execution, and an understanding of drawing as an art form.

## 155 Introduction to Studio Art: The Creative Process

An introduction to studio art that includes studio projects in two and three dimensions, readings, and discussions which unite the process of making art with an exploration of some ideas and imaginative sources which contribute to the world of the visual artist.

## 156 Introduction to Studio Art: Art and the Environment

An introduction to studio art that explores the relationship between art and the environment, including the role of the artist in an environmental era. We focus on several areas, including the natural environment, our urban-industrial environment, the architectural environment, and how to make art within their context. Projects include both two- and three-dimensional explorations, as well as social sculpture, installation, and environmentally sited works.

## 165 Ceramics I

An introduction to hand-formed ceramics and to pinching, coiling, slab, and other off-the-wheel techniques. Basic ceramic chemistry and kiln firing practices are also covered. An additional fee for materials is charged.

## 171 Photography I

An introduction to photography as a potent form of artistic visual communication. Contemporary and historical trends, techniques, and thematic content are covered, with an emphasis on proficiency with craft. Hands-on assignments, readings, lectures, and discussions provide a broad survey of image analysis strategies, help students learn technical basics, make informed choices about materials and processes, and articulate their own creative ideas. The course requires a 35 mm film camera with manually adjustable apertures and shutter speeds.

## 251 Figure Drawing I

Development of an understanding of the human figure and of the graphic ability to express it effectively. Prerequisite: Art 151 or permission of instructor.

## 255 Drawing II

A further development of the work in Art 151 with a greater emphasis on drawing as an art form. Prerequisite: Art 151 or permission of instructor.

## 261 Sculpture I

A beginning level course covering traditional as well as contemporary forms of sculptural expression. Considerations of form, space, and scale,
as well as the significance of materials and process are explored. Projects involve clay modeling, wood construction, carving, and mixed media. Prerequisite: Any 100-level Studio Art course or permission of instructor.

## 265 Ceramics II

A continuation of the study of ceramics beyond the basic course. Problems aimed toward the development of more individual approaches and solutions. An additional fee for materials is charged. Prerequisite: Art 165.

## 271 Photography II

The development of photographic projects in color, digital, or advanced black-and-white photography. Emphasis on photographic concepts and practice as artistic and visual communication. Prerequisite: Art 171.

## 275 Printmaking: Relief and Etching I

An introduction to printmaking as an art form concentrating on relief and etching techniques. Linocut, line etching, aquatint, and color techniques will be explored through studio projects.

## 276 Printmaking: Lithography I

An introduction to printmaking as an art form with emphasis on the drawing, processing and printing of lithographs. Studio projects will stress the creation of effective lithographic images.

## 281 Painting I

A study of the fundamentals of painting in oils or acrylics. The preparation of supports and grounds, indirect and direct methods of painting, color organization, composition and artistic expression are presented through studio projects. Historical background on painting in the 20th century is introduced. A field trip to an area art museum is required. Prerequisite: One studio course from Art 151, 155, 156 or permission of instructor.

## 285 Computer Art I

An introduction to the digital computer as a medium for artistic expression through studio projects and a study of the history of computer art. Macintosh computers are used together with Adobe Photoshop for image manipulation and acquisition with slide or flatbed scanners, and for printing of high-quality color images. Adobe Premier is used for video capture. Time-based and interactive work is created with Macromedia Director. Emphasis is placed throughout on the development of well composed and expressive work. A group project to create a Web-based class portfolio concludes the course. Prerequisite: One studio course from Art 151, 155, 156 or permission of instructor.

## 351 Figure Drawing II

Further development toward understanding the human figure and the graphic ability to express it effectively. May be taken for 2 or 4 credits. Prerequisite: Art 251.

## 361 Sculpture II

A continuation of problems explored in Art 261 with concentration on the development of individual ideas and processes. Prerequisite: Art 261.

## 365 Ceramics III

Advanced studio work in ceramics. Prerequisites: Art 165, 265. Additional fee for materials is charged.

## 375 Printmaking II

Advanced problems in printmaking. An additional fee for materials is charged. Prerequisite: Art 275 or 276.

## 381 Painting II

Development of expressive ideas in oils, acrylics, and water color.
Special attention is given to art movements in the 20th century, the
concepts that characterize them, and the artists who are involved. Prerequisite: Art 281.

## 385 Interactive Computer Art

An advanced study of computer art. Emphasis is placed on the creation of multimedia works of art that incorporate interactive interfaces that allow viewers to navigate the content of the art work in a non-linear manner. Media may include text, still imagery, animation, sound, and video. Interactivity studied includes standard mouse and keyboard inputs and extends to sensors for detecting viewer presence, location, or actions in free space. Prerequisite: Art 285.

## 386 Web Art

An advanced study of computer art. The design and creation of works of art to be sited on the WWW using HTML, text, imagery, sound, video, and interactivity is combined with a study of the history of the development of Web art and its chief practitioners. Prerequisite: Art 285.

## 521 Internship with the French Creek Project

An internship in illustration for publications for the French Creek Project. This internship is ideal for the student who has an interest in drawing for publications, in combining interests in science, art, and the environment, and in learning about the relationship between illustrator and client. The internship 1) acquaints the student with the French Creek project and the services it provides; 2) demonstrates the connection between drawing for oneself and drawing for others; and 3) involves the student in creating illustrations appropriate in both concept and technique for publication. The intern meets regularly with the project director and the internship faculty liaison to review drawings, discuss what is needed for the variety of issues addressed in the publication, and to review and reflect upon the results of these experiences. Performance is evaluated by the faculty liaison in consultation with the project director. Must be taken for credit, and may be repeated. Credit: Two to four semester hours. Prerequisites: Art 151, 251, or 155, and the approval of the supervising faculty member.

## 522 Art Teaching Internship

This internship is designed to introduce and exemplify art's capacity for allowing and encouraging connection to community as well as art's ability to augment personal development in both students and teachers. This internship is ideal for the student who has an interest in teaching art, in corporating art into a general classroom curriculum, or in art therapy. The internship will: 1) acquaint the student with the concept of a community youth center and the services it provides; 2) facilitate the connection between the making of one's own art and the teaching of art; 3) involve the intern in the planning and implementation of appropriate art experiences; and 4) require that the intern read and research traditional and current trends in art education. The intern will meet regularly with the agency director for discussion and supervision as well as weekly conferences with the internship instructor to review assigned readings, discuss the design of classroom experiences, and then review and reflect upon the results of those experiences. Performance will be evaluated by the on-site supervisor in consultation with internship faculty. In addition, the supervising faculty will evaluate the student's written work consisting of a journal integrating the on-site experiences with the assigned readings and a research paper. Must be taken for credit and may be repeated. Prerequisites: Art 151, 155 or 156 and 261.

## 580 Junior Seminar

Preparation for advanced, independent work in studio art for art majors only. In addition to independent studio work, this seminar includes
readings in contemporary art and covers proposal writing, the role of history in the art-making process, and how to write an artist's statement. It is designed to help prepare art majors for the Senior Project. Required of all studio majors in the junior year. Must be taken on the letter grade basis. Prerequisites: Two Studio Art courses and one Art History course.

## 583 Advanced Studio Projects

Advanced projects and group discussions. This class is designed to help students develop more independent studio work. Highly recommended as a follow-up to Art 580 for majors preparing for the Senior Project. Required of all minors in studio art. Also recommended that students complete the media sequence before enrolling. Must be taken on the letter grade basis. Prerequisites: Two Studio Art courses and one art history course.

## 590 Independent Study

For upperclass students who are qualified to do work outside the scope of regularly scheduled courses.

## 620 Senior Project: Studio Art

Must be taken on the letter grade basis.

## Biochemistry

Professors Nelson, Coenen, Deckert, Garcia, Hersh, Humphreys, Kleinschmidt, Murphree, Petasis, Serra

Biochemistry is the science at the interface of Biology, Chemistry, and Physics that deals with the chemical composition of living matter and the molecular nature and physical processes of living systems. The Biochemistry major is part of an interdisciplinary program primarily supported by faculty from the Biology, Chemistry, and Physics departments. The major is considered a natural sciences major. There is no Biochemistry minor.

## The Major

The Biochemistry major requires a group of introductory and upper level courses from the Biology, Chemistry, Physics, and Mathematics Departments. In addition, majors must take the Junior Seminar offered by one of the participating departments (Bio 580, Chem 581 or Phys 580). Students may choose an area of specialty within the major via additional electives and the selection of an appropriate Senior Project (Biochemistry 600-610). No courses required for the major may be taken on a Credit/No Credit basis.

## Required Courses:

Mathematics 160-170 - Calculus I \& II
Physics 110-120 (or 101-102) - Introductory Physics I \& II
Biology 220 - Organismal Physiology and Ecology
Biology 221 - Genetics, Development, and Evolution
Biology 305 - Molecular Biology
Chemistry 110-112 - Fundamentals of Chemistry I \& II
Chemistry 231 - Organic Chemistry I
Chemistry 242 - Energy in Chemical Systems (Physical Chemistry)
Chemistry 253 - Introductory Biochemistry
Junior Seminar (Bio 580, Chem 581 or Phys 580)
Biochemistry 600-610 - Senior Project I \& II

A student's Senior Project Committee must include representatives from at least two of the affiliated departments (Biology, Chemistry, and Physics).

Placement into Mathematics 170 satisfies the Mathematics 160 requirement for the major. Similarly, placement into Chemistry 112 satisfies the Chemistry 110 requirement for the major.

Physics 110-120: When scheduling permits, students are strongly encouraged to enroll in the Physics 110-120 sequence rather than the Physics 101-102 sequence. Note that enrollment in Physics 110-120 is limited to first and second year students.

FS201: It is recommended that students anticipating a major in Biochemistry fulfill their FS201 graduation requirement via FSBio201.

Complementary Laboratory Work: Students who intend to pursue graduate work or enter the Health Professions should consult the guidelines for their discipline with respect to the laboratory requirement.

## Additional Upper-Level Electives:

Students are encouraged to consider additional upper-level electives. Biochemistry majors should consult with one of the affiliated faculty members to discuss which additional course(s) would best complement the required courses in preparing the student for his or her anticipated career path.

## 600 Senior Project I

Development of individual senior research projects in group and individual meetings with the project advisor and other appropriate faculty members. Pertinent literature is examined in order to identify proper experimental approaches, designs, techniques, and methods of data analysis. Oral and written research proposals and progress reports are presented and discussed. Credit: Two semester hours. Prerequisites: Intended for Biochemistry majors, seniors only.

## 610 Senior Project II

A continuation of BioChem 600. Group and individual meetings are held to evaluate the progress of individual student research projects. Emphasis is placed on data analysis and interpretation, and on modes of presentation of research findings. Students complete a written thesis and oral defense before a board of biochemistry faculty. Credit: Four semester hours. Prerequisites: Successful completion of Biochemistry 600. Intended for Biochemistry majors, seniors only.

# Biology 

Professors Coenen, Coates, Donmoyer, French, Hersh, Humphreys, Kleinschmidt, Lundberg, Mumme, Nelson, Ostrofsky, J. Palmer, Rankin, Webb, Whitenack, Wissinger, Wurst

Biology, the study of life, is a discipline of astonishing variety. It encompasses not only the diversity of living things on the earth today, but also the diversity of levels (from molecules to cells to organisms to ecosystems) at which life can be studied. The Biology Department offers a modern, balanced, and comprehensive treatment of biology, emphasizing independent research, analysis of information, and integration among its subdisciplines and with other areas of the liberal arts, including related disciplines such as chemistry, mathematics, geology, physics and psychology. Many new discoveries in biology, such as those that are making genetic engineering a reality, are radically transforming our perception of what biology is and what it can mean to our everyday lives. More than ever, the social, political, economic and moral implications of these discoveries require not only that a liberally educated person understand the principles of modern biology, but also that a biologist be liberally educated.

## The Major

The major in Biology leads to the Bachelor of Science degree and requires the successful completion of 34 semester credit hours in Biology, including Biology 220 and 221, FS Bio 201, a junior seminar (Biology 580), the two-semester senior project and seminar (Biology 600 and 610), and three 300-level biology courses, one from each of the three areas defined below.

## Area A - Cellular and Molecular Biology

Biology 305 - Molecular Biology
Biology 315 - Developmental Biology
Biology 320 - Cell Biology
Biology 325 - Genetics
Appropriate courses at the Duke University Marine Laboratory (e.g., Biochemistry of Marine Animals, Molecular and Cellular Processes in Marine Organisms)
Area B - Organismal Biology and Physiology
Biology 310 - Microbiology
Biology 342 - Toxicology
Biology 360 - Plant Physiology
Biology 365 - Comparative Anatomy
Biology 380 - Animal Physiology
Appropriate courses at the Duke University Marine Laboratory (e.g., Marine Invertebrate Zoology, Physiology of Marine Animals, Coastal Ecotoxicology, Environmental Biochemistry)
Area C - Population Biology and Ecology
Biology 330 - Ecology
Biology 335 - Conservation Biology
Biology 340 - Evolution
Biology 344 - Stream Ecology
Biology 346 - Wetlands
Appropriate courses at the Duke University Marine Laboratory (e.g., Marine Ecology, Biological Oceanography, Marine Mammals, Ocean Ecosystems, Barrier Island Ecology, Estuarine Ecosystems)

In addition, Biology 385 (or another course in statistics) is highly recommended.

> To obtain the necessary prerequisites for required Biology courses as well as to gain an adequate understanding of modern Biology, a major must also complete Mathematics 160 (or 157-158), Chemistry 110, 112, and 231, and two additional four-credit courses in cognate disciplines in the sciences that complement the student's subdisciplinary interest in Biology and are determined in consultation with a Biology academic advisor. The following courses fulfill this two-course requirement: Biostatistics (Biology 385), Chemistry (200-level or higher-except 231), Computer Science (100-level or higher), Geology ( $100-$ level or higher), Mathematics (Mathematics 170 or higher), and Physics (101,102,110, or 120). The two-course requirement cannot be satisfied with courses numbered 190. Placement in Mathematics 170 or higher satisfies the Mathematics 160 requirement for the major, and placement in Chemistry 112 satisfies the Chemistry 110 requirement for the major.

> All courses required for the major must be taken for a letter grade. Biology courses exceeding the minimum requirements for the major may be taken on a Credit/No Credit basis, but the department recommends that the number of Credit/No Credit courses be kept to a minimum. Majors are required to have a GPA of at least 2.0 in Biology at graduation. All Biology courses taken for a letter grade at Allegheny, including FS Bio 201, are included in the calculation, with the exception of repeated courses for which only the most recent grade counts.

## The Minor

A minor in Biology must comprise 20 semester credit hours in Biology, including Biology 220, Biology 221, FS Bio 201, and two 300-level courses in Biology, at least one of which must be a laboratory course. In order to obtain an adequate understanding of modern biology, a Biology minor must also complete $8-12$ semester credit hours in chemistry courses, including Chemistry 110, 112 and 231. Placement in Chemistry 112 satisfies the Chemistry 110 requirement for the minor. All courses required for the Biology minor must be taken for a letter grade.

## Off-Campus Study in Marine Biology

Students who are eligible (GPA at least 3.0 and approval of Director of

International Programs and Services) can participate in our cooperative program with the Duke University Marine Laboratory in Beaufort, North Carolina. Students typically participate for one semester in the junior year and take a full course load including an independent research experience. Students receive Allegheny grades and credit for Biology major (appropriate courses for Areas A, B, C, and Junior Seminar) and minor requirements. The spring program entails one-half semester at Duke and one-half semester at the Bermuda Biological Laboratory. Contact the Director of International Programs and Services in Reis Hall for more information on this program.

## Courses for Non-Majors

## 040 Plants and Society

An examination of the fundamental nature of plants, their importance to environmental health, and their impact on the development of society through forestry and agriculture. The basic structure and function of plants is considered in the context of their diversity in the plant kingdom. Genetic engineering of crop plants and plant disease are discussed in relation to their impacts on the environment and on human society.

## 045 Biology of the Algae

An examination of the basic biology of the algae and their role in ecosystems and interrelationships with humans. Local algal flora in area streams and lakes are sampled during field trips and investigated in the laboratory. Topics include ecology, physiology, cellular biology, and taxonomic diversity of the algae, and the effects of algae on the environment and human society. One laboratory per week.

## 050 Basic Ecology

An introduction to the study of interactions between organisms and their physical and biological environment, including aspects of behavior and evolution. The laboratory emphasizes field methods for investigating populations, communities, and ecosystems in this region. One laboratory per week.

## 060 Cancer: Causes and Consequences

An examination of the medical and societal consequences of the disorders collectively known as cancer. Topics addressed include the series of events by which a cell can escape its normal constraints and take on cancerous properties, the advantages and limitations of current treatments, the reasons numerous headline-generating breakthroughs have yet to translate into a cure, and the relative role of scientific, emotional, and economic considerations in influencing decisions about screening, treatment, medical coverage, and research funding. One laboratory per week.

## 067 Microbes and People

An interdisciplinary introduction to the science and social impact of bacteria, viruses, and other microbes. Topics include the biology of pathogens (such as HIV, influenza, mad cow disease, and bioterrorism agents), beneficial microbes, epidemiology and disease prevention, and the effects of infectious disease in terms of individual, public, and global health. One non-infectious laboratory per week.

## 070 Human Heredity

A study of the principles, practices, and results of the genetic analysis of humans. Family studies, clinical information, and molecular approaches to the study of the genetic basis for human physical characteristics, behaviors, and disorders are explored, as are the scientific, ethical, and social implications of issues such as genetic counseling, the Human Genome Project, and gene therapy. One laboratory per week.

## 071 Biotechnology

An examination of biotechnology, emphasizing the impact of recombinant DNA technology on this industry. Topics covered include manipulation of genes, expression of foreign genes in organisms, and application of biotechnology in the health and agricultural industries. Ethical and social considerations of genetic engineering as it applies to biotechnology are discussed. Laboratory experiments including DNA sequencing and fingerprinting and those emphasizing important concepts in recombinant DNA technology are included. One laboratory per week.

## 072 The Neurosciences

A survey of recent advances in our understanding of the nervous system. The interdisciplinary nature of this field of study is emphasized by discussion of a broad range of disciplines as they relate to the neurosciences, including anatomy, biochemistry, genetics, physics, chemistry, physiology and psychology. One laboratory per week.

## 077 Principles of Biology

An introduction to biological principles for non-biology majors. Topics include molecular and cellular biology, genetics, organismal diversity and physiology, ecology and evolution. Explicit connections will be made between principles and their applications in medicine, agriculture and environmental sustainability. One laboratory per week.

## 078 The Biology of Behavior

An investigation of biological principles of animal behavior through the study of physiological, genetic, developmental, ecological and evolutionary processes. One laboratory per week.

## 082 Insects and Humans

A study of the basic biology of insects, with an emphasis on the interrelationships between insects and humans. These interrelationships include the beneficial roles of insects in agriculture, their negative impact as pests and disease vectors, and ways in which insect populations and activities can be controlled. One laboratory per week.

## Introductory Courses

## 220 Organismal Physiology and Ecology

An introduction to the biology of organismal form and function (physiology) and the interaction of organisms with their environment (ecology). We take a comparative approach to the diversity of physiological systems that have evolved in different organisms to meet the environmental challenges that they face (energy, water balance, excretion of wastes, communication, reproduction, gas exchange, defense). We also consider how the interactions between organisms and their physical and biological environment (other organisms) affect the distribution and abundance of populations and ecosystems. Three lectures and one discussion period per week. Prerequisite: Chemistry 110.

## 221 Genetics, Development and Evolution

An introduction to the central role of genetics in modern biology.
Topics include an examination of how genetic information is expressed and regulated, how it directs organismal development, how it is passed from one generation to the next, and how it is modified via the evolutionary process. Three lectures and one discussion period per week. Prerequisite: Biology 220.

## Advanced Courses

## 305 Molecular Biology

A study of the molecular components of replication and gene expression in prokaryotes and eukaryotes. The molecular aspects of gene structure, function, and regulation are emphasized, as are current methods for the
study of these topics. One laboratory per week. Prerequisites: Biology 220, 221, and Chemistry 231.

## 310 Microbiology

A study of the structure, physiology, genetics, and evolution of prokaryotes, viruses, and lower eukaryotes. Emphasis is placed on microbial diversity, interactions among microbes, and interactions of microbes with their environment, including human hosts. The course includes discussion of papers from the primary literature. One laboratory per week. Prerequisites: Biology 220, Biology 221, FS Bio 201, and Chemistry 231.

## 315 Developmental Biology

An examination of the development of organisms, with an emphasis on the molecular, cellular, physiological and genetic aspects of developmental processes. One laboratory per week. Prerequisites: Biology 220, 221, FS Bio 201 and Chemistry 231.

## 320 Cell Biology

A study of the structure and function of eukaryotic cells. Topics include current methods in cell biology and molecular genetics, the structure and function relationships of major organelles and cytoskeletal elements, interactions between cells, regulation of cell division and cell death, and signal transduction pathways. One laboratory per week. Prerequisites: Biology 220, 221, FS Bio 201 and Chemistry 231.

## 325 Genetics

A study of the mechanisms of inheritance at the molecular, organismal, and population levels. One laboratory per week. Prerequisites: Biology 220, 221, FS Bio 201 and Chemistry 231.

## 330 Ecology

Study of the interrelationships of organisms and environment. Interactions are studied at the individual, population, and community levels. One laboratory per week. Prerequisites: Biology 220, 221 and FS Bio 201 (or Environmental Science 110) and Mathematics 158 or 160.
335 Conservation Biology (also listed as Environmental Science 335) The study of biological diversity and the increasingly severe effects of human society on populations and communities of wild organisms. Emphasis on local and global patterns of diversity, causes and consequences of declines in diversity, and ways to work with natural or managed systems to maintain or restore diversity. The laboratory emphasizes learning local flora and fauna, investigating local conservation biology issues, and using tools and techniques of wildlife and natural resource management to understand and resolve conservation problems. One laboratory per week. Prerequisites: Biology 220, 221 and FS Bio 201 or Environmental Science 110.

## 340 Evolution

An examination of modern evolutionary biology, focusing on the process and pattern of evolutionary change. Topics include sources of genetic variation, natural selection and adaptation, molecular evolution, speciation, macroevolution, and the reconstruction of evolutionary history. Prerequisites: Biology 220, 221, and FS Bio 201.
342 Toxicology (also listed as Environmental Science 342)
An introduction to the study of substances toxic to plants and animals. Special emphasis is given to the toxicology of pesticides and herbicides and their mode of action. One laboratory per week emphasizes quantitative analysis of toxins and toxic effects. Prerequisites: Biology 220, 221 and FS Bio 201 or Environmental Science 110.
343 Coastal Science and Management (also listed as
Environmental Science 343)
An examination of coastal systems. Topics include abiotic factors that shape coastal systems, dynamic interactions between organisms and coastal environments, and human impacts and policies that affect
abiotic and biotic relationships in the coastal zone. Students participate in field- and laboratory-based activities and research of coastal systems and policy issues. May include field trips, with one longer weekend trip. Laboratory, one period. Prerequisites: Biology 220 and one of: Environmental Science 110; Geology 108 or 110; or permission of the instructor.
344 Stream Ecology (also listed as Environmental Science 344) Study of the physical and biological characteristics of stream ecosystems. The laboratory emphasizes field study of local aquatic habitats. One laboratory per week. Prerequisites: Biology 220, 221 and FS Bio 201 or Environmental Science 110.
346 Wetlands (also listed as Environmental Science 346)
A study of the ecology and conservation of marshes, swamps, and bogs. Emphasis is on "ecosystem services" (hydrologic filters, pollutant sinks, productivity, biodiversity), on the history of wetlands destruction, and on current regulation and management approaches. One laboratory per week. Prerequisites: Biology 220, 221 and FS Bio 201 or Environmental Science 110.

## 360 Plant Physiology

An exploration of plant growth, development, transport processes, and adaptations to the environment. Current molecular, cellular, biochemical , and genetic approaches to the study of plants are emphasized. The laboratory focuses on plant responses to hormones and environmental factors. One laboratory per week. Prerequisites: Biology 220, 221, FS Bio 201 and Chemistry 231.

## 365 Comparative Anatomy

Organ systems of chordate animals are studied in relation to evolutionary relationships and adaptive specializations. Two laboratories per week. Prerequisites: Biology 220, 221 and FS Bio 201.

## 380 Animal Physiology

Emphasis is placed on the nervous system and the endocrine system as the two communication systems in the body underlying the regulation of physiological function. Other systems, such as those involved in circulation, respiration, digestion, excretion, and fluid regulation, are discussed, primarily from a cellular perspective. One laboratory per week. Prerequisites: Biology 220, 221, FS Bio 201 and Chemistry 231.

## 385 Biostatistics

Introduction to quantitative methods with biological applications. Content includes descriptive statistics, probability distributions, tests of significance and curvefitting techniques. Cannot be taken for credit after completion of Economics 202, Political Science 299, Psychology 206-207, or Mathematics 345. Prerequisite: Mathematics 158 or 160.
523 Internship in Conservation Biology with the Erie National Wildlife Refuge (also listed as Environmental Science 523 )

## Liaison: Professor Wissinger

The internship enables the student to become familiar with the operation of a National Wildlife Refuge and participate in activities relating to wildlife conservation. The student, faculty liaison, and Refuge internship coordinator jointly agree on a project that is formalized in a project proposal. Evaluation is in consultation with the Refuge contact and based on a reflective journal, a midterm progress report and literature review, and a final report that includes an analysis of the results of the study. Prerequisite: Biology 220.

## 527 Internship in Fisheries Biology with the Pennsylvania Fish Commission

Liaison: Professor Wissinger
The internship is designed to permit students to gain experience in the operation of a fish culture station and to participate in fishery management
practices. In spring, the internship is in cooperation with the Linesville Hatchery near Pymatuning Lake, and in the fall with the Fairview Hatchery on Lake Erie. The student, faculty liaison, and Hatchery internship coordinator jointly agree on a project that is formalized by the student in a project proposal. Evaluation is based on a midterm progress report that includes a literature review, and on a final report that includes an analysis of the results of the study. Prerequisite: Biology 220.

## 580 Junior Seminar

Biology 220, 221 and completion of FS Bio 201 with a grade of C or better are prerequisites for the Biology Junior Seminar. The following courses are sections of Biology 580.

## Limnology

Study of the physical, chemical, and biological characteristics of lakes and impoundments. The laboratory emphasizes field study of area lakes. One laboratory per week.

## Physiology of Reproduction/Behavior

An examination of the physiological bases of animal reproduction and the behaviors that accompany the reproductive process. The laboratory utilizes insects as model systems to examine reproductive behaviors, effects of hormone applications, and effects of gland/organ removal (microsurgery). Additional techniques include tissue culture, as well as the biochemical, radiochemical and immunological identification and quantification of various hormones. One laboratory per week.

## Genetic Analysis

A study of genetic approaches to the investigation of complex biological processes, including animal development, behavior, and disease. Students consider model genetic systems such as the fruit fly, Drosphila melanogaster, and how these models can be used to analyze human genetic disorders. The laboratory involves experience with molecular biological methods, techniques of both forward and reverse genetics (e.g., mutagenesis, RNA interference), and molecular mapping of traits. One laboratory per week.

## Animal Behavior

An examination of animal behavior from an ecological and evolutionary perspective. Topics include the genetics and development of behavior, behavioral aspects of resource use and predator-prey relationships, male and female reproductive strategies, parental care, and social behavior. One laboratory per week.

## Plant-Microbe Interactions

An examination of the interactions between plants and microorganisms, focusing on the molecular physiology of signal exchange in plantmicrobial symbioses. Laboratory investigations emphasize the modification of plant development by microbial symbionts and provide opportunities to work with genetic model systems and reporter gene analysis. One laboratory per week.

## Hormone Disruption

A study of disruption of normal hormone function by known and suspected environmental pollutants. Laboratory and field studies emphasize techniques used to detect hormone disruption in cells, tissues, nerves, and behavior as well as measurement of endocrine disrupters in the environment. One laboratory per week.

## Signal Transduction

An examination of the central role played by signal transduction pathways in the process of cellular differentiation. Particular emphasis is placed on evolutionarily conserved pathways involved in development in a wide range of organisms, including examples of signaling defects implicated in cancer and other human disorders. The laboratory includes experience in tissue culture, histochemical staining, and
fluorescence imaging techniques. One laboratory per week. Recommended: Biology 305, 315, 320, or 325 .

## Oxidative Stress Response

An examination of biotic and abiotic stresses that produce reactive oxygen species in plants and the response mechanisms involved in sensing and reducing these toxic compounds. In the laboratory, oxidative stress response is investigated at the proteomic and genomic levels using molecular biological techniques. One laboratory per week.

## Sensory Neurobiology

An examination of the structure and function of the sensory systems of invertebrates and vertebrates with emphasis on mechanisms at the cellular level. The laboratory provides experience in electrophysiological techniques and computer simulations as they are used to illustrate the function of neurons and sensory organs in a wide variety of experimental animals. One laboratory per week. Recommended: FS Neu 201.

## Cellular Neurobiology

An examination of the nervous system at the level of single cells and molecules, with special emphasis on voltage-gated ion channels and ligand-gated receptors. The laboratory uses molecular and electrophysiological techniques to study structure and function of nervous system proteins. One laboratory per week. Recommended: FS Neu 201.

## Ecology of Freshwater Wetlands

An examination of the structure and function of local wetland ecosystems and interactions with adjacent aquatic and terrestrial habitats. The laboratory emphasizes field study of hydrologic and chemical analysis, and identification of wetlands flora and fauna. One laboratory per week.

## Pathogenic Bacteriology

An exploration of bacterial pathogens and how they cause disease. Students study principles of pathogenic microbiology, including where disease-causing organisms come from, how they are transmitted to a host, what factors they use to cause damage to the host and perpetuate their own survival, how the disease is treated, and how transmission can be prevented. The laboratory focuses on factors contributing to virulence using standard microbiology and molecular biology techniques. One laboratory per week. Recommended: Biology 305, 310, or Chemistry 353.

## The Evolution of Shape

An examination of why living and extinct animals are shaped the way they are from an evolutionary and mechanical perspective. Laboratory topics include biomechanics, functional morphology, and how shape is used to explore evolutionary and ecological relationships of both vertebrates and invertebrates. One laboratory per week.

## Physiology of Vision

An examination of the physiology of vision from the molecular to the organ level. Students focus on retinal function, metabolism, and gene expression using in vitro and in vivo laboratory methods.

## Molecular Evolution

Explores the fundamentals of evolutionary theory and methodologies with an emphasis on those specific to the analysis of molecular data. Advancements in molecular data collection and analysis will be emphasized, from historical techniques such as DNA-DNA hybridization through current phylogenomics research. The laboratory will provide experience in standard molecular biology techniques and bioinformatics towards the collection and analysis of molecular data in an evolutionary context. One laboratory per week.

## 590 Independent Study

Designed for students who desire to pursue advanced work. Work may
consist of experimental laborat ory research or of a problem based entirely upon library research. Enrollment only by permission of the department. Arranged by consultation. Credit: One to four semester hours.

## 600 Senior Project and Seminar I

Individual senior research projects will be developed in group and individual meetings with the project advisor and other appropriate faculty members. Pertinent literature is examined in order to identify proper experimental approaches, designs, techniques, and methods of data analysis. Oral and written research proposals and progress reports are presented and discussed. Credit: Two semester hours. Prequisite: Biology 580.

## 610 Senior Project and Seminar II

A continuation of Biology 600. Group and individual meetings are held to evaluate the progress of individual student research projects. Emphasis is placed on data analysis and interpretation, and on modes of presentation of research findings. Students will complete a written thesis, oral defense, and present their findings at the
departmental senior project symposium. Credit: Four semester hours. Prequisite: Biology 600.

## Sophomore Seminar

## FS BIO 201 Communication in a Discipline <br> Investigative Approaches in Biology

An investigative laboratory course that emphasizes experimental design, modern experimental techniques and instrumentation, analysis and interpretation of data, and written and oral presentation. The course consists of three multi-week project modules designed to illustrate investigative approaches at different levels of biological organization-molecular/cellular, organismal/physiology, and population/ecosystem. There is an emphasis on independent and cooperative laboratory/field work, and on writing and speaking in the sciences. One two-hour recitation/discussion and three-hour lab period per week. Four credits. Prerequisite: Biology 220. This course is required for Biology majors and minors.

## Chemistry

Professors Deckert, Ams, Garcia, Horn, Knaust, Murphree, Persichini, Serra, Sheffield, Statman, Van Horn

Science is an integral part of a liberal arts education, and chemistry is a central science. The Chemistry Department offers its students not merely a collection of facts concerning the nature of chemical interactions, but endeavors to develop in them an appreciation for the experimental vision and rigor necessary to assemble such knowledge, and it expects of them a critical understanding of the logic and theory that integrates these bits of information into a unified whole. In doing so, we attempt to provide the opportunity for intellectual and personal growth. We encourage our students to appreciate science as a human endeavor and invite them to participate in the work of science as they accumulate the necessary insights and laboratory skills. We seek to stimulate and develop within each individual those qualities that foster an enthusiasm for knowledge, an attitude of critical reasoning, and the attainment of lucid self-expression, all of which transcend the limited context of chemical science.

## The Major

At graduation, Chemistry majors must have a GPA of at least 2.0 in departmental courses and in required courses outside the department. The calculation is based on the grades of all required courses for completion of the major. Only the most recent grade is considered for courses that have been repeated. Chemistry courses exceeding the minimum requirements of the major may be taken on a Credit/No Credit basis. The department recommends that the number of Credit/ No Credit courses be kept to a minimum.

The major in Chemistry requires completion of the following:

1) Foundation courses: Mathematics 160 and 170 (or their equivalent), Physics 110, Physics 120, Chemistry 120 (or Chemistry 110) and Chemistry 122 (or Chemistry 112). Any foundation courses which a student tests out of will be waived as requirements for the major. These courses should be completed by the end of sophomore year.
2) Core courses: Chemistry 222, 231, 242, 253, and FSCHM 201. Students should make every effort to complete these
courses by the end of junior year. To do so, several of these courses should be taken in the sophomore year.
3) Intermediate courses: Chemistry $332,345,361$ and 386.
4) Advanced courses: two credits numbered in the 400's, Chemistry 584 and at least four credit hours of Senior Project.
Chemistry courses numbered below 110 may not be counted toward the major.

Students desiring certification by the American Chemical Society (ACS) should also complete MATH 210.

## The Minor

The minor in Chemistry requires at least 20 semester hours in Chemistry and 8 in Mathematics. A maximum of four semester hours may be presented on a Credit/No Credit basis for the minor. There are two tracks for the minor:
Track 1: Synthetic emphasis
Math 160 and 170 (or equivalent)
Chemistry 120 (or Chemistry 110) and Chemistry 122 (or Chemistry 112)

Chemistry 231
Chemistry 332 or Chemistry 253
Chemistry 386 (two credits)
FSCHM 201
One course (two credits) numbered in the 400's

## Track 2: Quantitative emphasis

Math 160 and 170 (or equivalent)
Chemistry 120 (or Chemistry 110), Chemistry 122 (or Chemistry 112)
Chemistry 242
FSCHM 201or Chemistry 222
Chemistry 584
One course (two credits) numbered in the 400's

Chemistry courses numbered below 110 may not be counted toward the minor.

## Cooperative Engineering Program

Students who participate in a cooperative engineering program (3-2 engineering) with a major in Chemistry are required to take the core, the Junior Seminar plus additional chemistry courses to bring the total to 33 semester hours in Chemistry.

## 104 Forensic Chemistry

An introduction to chemical principles as they apply to forensic investigations. Topics covered include the scientific method, measurements, chemical foundations (atoms, elements, compounds, and states of matter), reactions, energy, and kinetics as they pertain to forensics science. Through an understanding of basic chemical principles, this course investigates the role of chemistry in solving crimes. Crime-scene case studies are utilized to explore the scientific foundation for the examination of physical, chemical, and biological evidence. May not be taken for credit after successful completion of Chemistry 110, 120, 112 or 122 . One laboratory per week. This course must be taken on a letter grade basis.

## 105 The Science of Chemistry

A study of the basic principles of chemistry and its contributions to the understanding of nature, modern technology, and the benefits and problems of science. One laboratory per week. Not open to science majors. May not be taken for credit after successful completion of Chemistry 110, 120,112 or 122 . This course must be taken on a letter grade basis.

## 107 Chemistry and Archaeology

The study of chemical analyses of artifacts that provide important information about past cultures. The scientific basis, archaeological significance, and practical limitations of a number of methods are examined. Techniques discussed include dating methods and compositional analysis. Examples are taken from various cultures. One laboratory per week. Offered in alternate years. May not be taken for credit after successful completion of Chemistry 110, 120, 112 or 122. This course must be taken on a letter grade basis.

## 108 Environmental Chemistry

A study of the origins, effects, and fate of chemical pollutants. Acid rain, global warming, the "ozone hole," and other problems of the air and water environments are discussed. Underlying questions concerning the chemistry of the environment are identified. Accounts of pollution in the popular press are critically evaluated from a scientific standpoint. One laboratory per week. Offered in alternate years. May not be taken for credit after successful completion of Chemistry 110, 120, 112 or 122. This course must be taken on a letter grade basis.

## 110 Principles of Chemistry 1

An integrated lab/lecture experience that introduces the fundamental principles underlying the science of chemistry. Topics include reaction and interaction, molecular shape and structure, energy, and atomic structure. Includes one two-hour laboratory session per week. Students wishing to major in Chemistry after taking this course should consult the department about which course to take next. Students may not receive credit for both Chemistry 110 and Chemistry 120. Taught in the spring semester. Credit: 4 semester hours. Prerequisite: Completion of Math 157, Math 159, or Math 160 with a grade of "C" or better. In addition, enrollment in Math 158 or Math 160 is a corequisite for students who have not already received credit for one of these courses.

## 112 Principles of Chemistry 2

Further exploration of the topics introduced in Chemistry 110. Topics emphasized are thermodynamics, equilibrium and kinetics. Includes one two-hour laboratory session per week. Students wishing to major in Chemistry after taking this course should consult the department about which course to take next. Students may not receive credit for both Chemistry 112 and 122 . Taught in the fall semester. Credit: 4 semester hours. Prerequisite: Completion of Chemistry 110 or Chemistry 120 with a grade of "C" or better.

## 120 Chemical Concepts 1

An introduction to atomic and molecular structure and reactivity. Topics include quantum theory, bonding theories, molecular interaction and reaction. An emphasis is placed on the use of mathematical reasoning to solve problems and obtaining a quantitative understanding of chemical systems. One three-hour laboratory period per week. Taught in the fall semester. Students may not receive credit for both Chemistry 110 and Chemistry 120. Corequisite: Math160 or above.

## 122 Chemical Concepts 2

An introduction to chemical equilibrium and reactivity. Topics include thermodynamics, solution equilibrium and kinetics. An emphasis is placed on the use of mathematical reasoning to solve problems and obtaining a quantitative understanding of chemical systems. One threehour laboratory period per week. Taught in the spring semester. Students may not receive credit for both Chemistry 112 and Chemistry 122. Prerequisite: A grade of "C" or better in Chemistry 120.

## 222 Inorganic Chemistry

An examination of structure and bonding in inorganic compounds. Topics covered include solid-state chemistry, molecular orbital theory, acid-base chemistry, electrochemistry, and transition-metal chemistry. Taught in the fall semester. One laboratory per week. Prerequisite: Completion of Chemistry 112 or Chemistry 122 with a grade of "C" or better.

## 231 Organic Chemistry I: Form and Function

An examination of the structure and reactivity of small organic molecules. Discussion of molecular architecture includes bonding, geometry and conformation. These considerations are applied to a survey of organic reactions, mechanisms and energetic. Emphasis is placed on the development of problem-solving skills and the concise communication of chemical ideas. Taught in the fall semester. One laboratory every two weeks. Prerequisite: Completion of Chemistry 122 or Chemistry 112 with a grade of "C" or better.

## 234 Organic Chemistry Laboratory II

Designed to relate directly to the material in Chemistry 332. Problems in qualitative analysis, multistep synthesis, and natural product isolation that expand on the techniques learned in Chemistry 231 lab are presented. Emphasis is placed on the student's ability to work skillfully
and independently in the laboratory, and to present well-structured conclusions in the form of written laboratory reports. Taught in the Spring semester. Corequisite: Chemistry 332. Credit: One semester hour.

## 242 Physical Chemistry

An introduction to classical thermodynamics and kinetics. Examples from biology, physics, environmental science and chemistry are used to illustrate the principles. Taught both semesters. Spring semester offering emphasizes biological examples. Math 210 or Physics 292 are strongly recommended as pre-or corequisites. Prerequisites: Math 170, Physics 120, Chemistry 122 or Chemistry 112.

## 253 Introductory Biochemistry

An elucidation of the structure and function of biological macromolecules such as proteins, nucleic acids, carbohydrates, and lipids. The chemistry of various biological processes is studied and an attempt is made to provide a molecular explanation for biological phenomena. The laboratory introduces modern techniques in experimental biochemistry. Taught both semesters. One laboratory per week. Prerequisite: Chemistry 231.

## 263 Introduction to Chemical Analysis

An introduction to the methods and concepts of analytical chemistry. Topics include experimental design, statistical analysis of data, and selected classical, spectroscopic, and chromatographic methods of analysis. Analytical techniques are discussed in the context of multiweek laboratory projects that are designed, performed, and interpreted by the class. Two lectures and one laboratory per week. Prerequisite: Chemistry 112.

## 332 Organic Chemistry II: Synthetic Strategies

A continued examination of the structure and reactivity of small organic molecules, with an emphasis on synthetic methodology. The mechanistic background developed in Chemistry 231 is expanded to include aromatic compounds, and this comprehensive knowledge if applied to the study of methods for the construction of diverse synthetic targets. Also continued from Chemistry 231 is the discussion of molecular structure, which is examined from the standpoint of spectroscopic analysis. Emphasis is placed on the development of problem-solving skills and the concise communication of chemical ideas. Taught in spring semester. Prerequisite: Completion of Chemistry 231 with a grade of "C" or better.

## 340 Chemical Kinetics

An introduction to the study of chemical kinetics. Statistical mechanics is introduced in order to relate molecular behavior to the empirical kinetics of chemical systems used as case studies. Students are encouraged to complete Physics 292 before taking this course. Prerequisite: Chemistry 242.

## 345 Quantum Chemistry

An introduction to the description of chemical systems on the molecular level. The macroscopic behavior of chemical systems is interpreted using the theoretical, microscopic description provided by quantum mechanics. Students are encouraged to complete Physics 292 before taking this course. Taught in spring semester. Prerequisite: Chemistry 242.

## 355 Biochemical Metabolism

A survey of the major metabolic pathways. Carbohydrate, lipid, electron transport and amino acid metabolic pathways will be explored at the molecular level. The molecular mechanisms of enzyme action and metabolic integration will be emphasized. Prerequisite: Chemistry 253. Credit: Two semester hours.

## 361 Instrumental Analysis

An introduction to the use of instruments in chemical analysis. Students will gain practical experience with modern spectroscopic and chromatographic techniques including GC-MS, HPLC-MS, NMR, stopped-flow techniques, and Raman spectroscopy. Hands-on experience will be enhanced by a theoretical dicussion of each technique studied. Taught in the fall semester. One 75 -minute lecture/lab session per week Two semester credit hours. Pre- or Corequisite: Chemistry 345.

## 386 Multistep Synthesis

A practical introduction to advanced synthetic laboratory skills. Multistep procedures are used to construct small organic targets and biomolecules. Reliance on the literature to plan and execute independent investigations is required. Modern instrumentation is utilized for product analysis. Taught in spring semester. Co- or prerequisite: Chemistry 332. Credit: Two semester hours

## 422-429 Current Topics in Inorganic Chemistry

An examination of methods, theories and practices in the discipline of inorganic chemistry. Group discussion is based on readings from journal articles and monographs. Students contribute to the class through literature research, discussion and brief presentations. Prerequisite: Chemistry 222 or permission of the instructor. Credit: Two semester hours.

## 432-439 Current Topics in Organic Chemistry

An examination of methods, theories and practices in the discipline of organic chemistry. Group discussion is based on readings from journal articles and monographs. Students contribute to the class through literature research, discussion and brief presentations. Prerequisite: Chemistry 332 or permission of the instructor. Credit: Two semester hours.

## 442-449 Current Topics in Physical Chemistry

An examination of methods, theories and practices in the discipline of physical chemistry. Group discussion is based on readings from journal articles and monographs. Students contribute to the class through literature research, discussion and brief presentations. Prerequisite: Chemistry 242 or permission of the instructor. Credit: Two semester hours.

## 452-459 Current Topics in Biochemistry

An examination of methods, theories and practices in the discipline of biochemistry. Group discussion is based on readings from journal articles and monographs. Students contribute to the class through literature research, discussion and brief presentations. Prerequisite: Chemistry 253. Credit: Two semester hours.

## 462-469 Current Topics in Analytical Chemistry

An examination of methods, theories and practices in the discipline of analytical chemistry. Group discussion is based on readings from journal articles and monographs. Students contribute to the class through literature research, discussion and brief presentations. Prerequisite: Completion of Chemistry 263 or FSCHM 201 or permission of the instructor. Credit: Two semester hours.

## 581 Junior Seminar

Introduction to understanding and responding to scientific presentations. A departmental seminar series provides exposure to major areas of modern chemistry. Students are required to attend and participate actively at all seminars by guest speakers. Credit: Three semester hours.

## 584 Junior Seminar

A practical introduction to laboratory techniques and research methods used in the senior project. Multi-week projects are undertaken to investigate chemical systems. Reliance on the literature to plan and execute independent investigations is required. Modern instrumenta-
tion is utilized for each project. An emphasis is placed on good written and oral communication skills. Taught in the spring semester. Pre- or Corequisites: Chemistry 222 and Chemistry 242. Credit: Two semester hours.

## 590 Independent Study

Study of special topics and/or laboratory research selected by the student who wishes to pursue independent work on material not covered in established courses. Prerequisite: Permission of the instructor. Credit: One to four semester hours.

## 600-620 Senior Project

A laboratory investigation of some topic of current research interest in collaboration with a faculty member. The topic, length of project, and amount of credit are chosen by the student in consultation with the faculty mentor. Careful laboratory technique, critical evaluation of data, depth of specialized knowledge, independence and originality are cultivated. A written and oral defense before a board of Chemistry faculty and regular attendance at the departmental seminar series are
required during each semester of enrollment. The Senior Project may span only one semester, earning four semester hours credit, or may involve two separate semesters of work, totaling four, six or eight semester hours of credit. Greater credit requires a greater time commitment from the student. A grade will be awarded during the terminal semester of the project. Thus, there are six separate combinations of the following courses by which to complete the Senior Project.
600
First semester enrollment, Credit/No Credit. Credit: Two semester hours.
610
Second semester enrollment, graded. Credit: Two semester hours.
601
First semester enrollment, Credit/No Credit. Credit: Four semester hours.
611
Second semester enrollment, graded. Credit: Four semester hours.
620
First semester enrollment, graded. Credit: Four semester hours.

## Communication Arts

Professors Crozier, Bailey, Branch, Cosdon, Keeley, Mehler, Silva, Sinha Roy, Watkins, Wilson. Yochim

The Communication Arts and Theatre department is dedicated to the creative and critical study of human communication, with special emphasis on drama, rhetoric, and mass media. The curriculum offers opportunities for the performance, practice, in-depth study, and analysis of texts and techniques in each of these spheres. Students engage in speech, writing, media studies, visual production, dramatic arts, and criticism, with the objective of becoming competent and engaged artists/scholars in their fields. The department's liberal arts emphasis encourages students to develop habits of engaged citizenship, thoughtful professionalism, and a meaningful private life.

## The Major

Majors are required to have a GPA of at least 2.0 in departmental courses at graduation. All Communication Arts courses taken at Allegheny on a letter grade basis are included in the calculation with the exception of repeated courses for which only the most recent grade counts. Declared majors must take departmental courses on a letter grade basis with an emphasis in one of the two areas listed below. All departmental courses are four semester credits, except 500, 590 (2-4 credits) and 601 ( 1 credit). A maximum of eight transfer credits may be counted toward the major. Please note: No more than 64 semester credit hours from any one department may be counted toward graduation.
Additional credits may be earned in the major department, but they will not count among the 131 required for graduation. The two areas of emphasis are:

## Communication Major: (minimum 45 credits)

Introductory (take either 120 or 135 plus 145):
120 - Media and Society
135 - Modes of Film and Video Production
145 - Foundations of Rhetoric

## Mid-Level (take either $\mathbf{2 2 0}$ or $\mathbf{2 4 0}$ plus one additional course from this category):

FSCOM201 - Sophomore Seminar

## Junior Seminar

581 - Communication Junior Seminar
583 - Production Junior Seminar

## Comprehensive Seminar

600 - Comprehensive Seminar

## Senior Project

610 - Communication Senior Project

## Electives

8 semester hours of electives (can include theatre courses).

## Theatre Major: (minimum 45 credits)

Introductory (take both of the following):
130 - Introduction to Theatre
225 - Text and Performance
Performance (take one of the following):
150 - Acting I: Fundamentals
170-Oral Interpretation

## Production

180 - Introduction to Theatre Production
Take one of the following:
211 - Scenic Production Technology
212 - Lighting and Sound Technology
312 - Costume Technology and Make-up
Practicum (take two of the following):
151 - Practicum: Performance
181 - Practicum: Production
281 - Practicum: Management.
Practicum courses are one semester credit hour each and must be taken on the Credit/No Credit basis. They may not be repeated for credit.

## History (take both of the following):

315 - Theatre History I: Classical Ages of the Theatre
325 - Theatre History II: The Revolutionary Stage

## Junior Seminar

582 - Theatre Junior Seminar

## Comprehensive Seminar

600 - Comprehensive Seminar

## Senior Project

611 - Theatre Senior Project

## Electives

8-16 semester hours of electives

## The Minor

A minor in Communication Arts consists of six graded courses in the department in one of the two departmental focus areas (see below). Students are encouraged to consult with department faculty to arrange a minor program that reflects their interests in Communication Arts/Theatre. An approved 2-4 credit internship (CA 500) may count as an elective. The department chair must approve exceptions to the minors listed below. A maximum of eight transfer credits may be counted toward the minor.

## Communication Minor:

Students are required to take one introductory course plus a minimum of one course from each of the three subcategories. Out of the total requirement of six courses, at least two must be at the 200-level and at least two must be at the 300 or 400 -level.

Introductory (take one of the following):
120 - Media and Society
135 - Modes of Film and Video Production
145 - Foundations of Rhetoric
Praxis (take one of the following):
150 - Acting I: Fundamentals
170-Oral Interpretation
235 - Communicating in Public
275 - Topics in Communication
290 - Visual Production I: Television Production
300 - Visual Production II: Electronic Field Production
360 - Rhetoric and Civic Engagement
Criticism (take one of the following):
220 - Media Criticism
225 - Text and Performance
240 - Rhetorical Criticism
375 - Documentary Tradition
385 - Studies in Public Discourse
460 - Advanced Topics in Communication and Diversity

## Theory (take one of the following):

255 - Topics in Rhetoric
260 - Topics in Media
265 - Topics in Production
335 - Advanced Topics in Rhetoric
351 - Media and Identity
465 - Media and Cultural Theory
471 - Rhetorical Theory
583 - Production Junior Seminar

## Electives

8 semester hours of electives (may include FS201 and CA 500)

## Theatre Minor:

Introductory (take both of the following):
130 - Introduction to Theatre
225 - Text and Performance
Performance / Production (take one of the following):
150 - Acting I: Fundamentals
180 - Introduction to Theatre Production
200 - Fundamental of Play Direction
Advanced (take one of the following):
230 - Production Design I
270 - Acting II: Voice and Movement
280 - Stage and Production Management
315 - Theatre History I: Classical Ages of the Theatre
325 - Theatre History II: The Revolutionary Stage
380 - Acting III: Styles of Acting
425 - Advanced Play Direction
430 - Advanced Topics in Theatre
History (take one of the following - not already chosen from the above):

315 - Theatre History I: Classical Ages of the Theatre
325 - Theatre History II: The Revolutionary Stage
Junior Seminar
582 - Junior Seminar in Theatre

Please note: Most 100 level classes and 290 must be taken prior to the student's senior year.

Students should consult with department faculty to discuss career options and internship opportunities. Majors and minors in Communication Arts are expected to participate in student activities such as the ACTV television station, WARC-FM radio, the Playshop Theatre, Student Experimental Theatre, Orchesis dance troupe, The Campus newspaper, and the Allegheny Literary Journal/Allegheny Review publications.

Internships sponsored by the Communication Arts department require the joint approval of a faculty liaison person and the host agency.

## 120 Media \& Society

An introduction to the history, theory, and criticism of mass media and their roles in society. Students explore histories of specific media such as newspapers, film, radio, television, and the internet and examine social issues related to contemporary media.

## 130 Introduction to Theatre

The study of theatre as an interpretative discipline. A lecture and discussion course concerned with artistic problem solving in the production of live theatre and the influences of aesthetic theory, dramatic criticism, and the work of collaborative artists on the theatre as a cultural institution. Viewing of live theatre and group projects required.

## 135 Modes of Film and Video Production

An introduction of the critical study of the modes of film and video production. Students study the distinctive formal elements of each mode as well as the historical, cultural, and economic context of production and reception. Some modes explored include classical Hollywood narrative, experimental, non-fiction, and new media. Viewing of evening screenings required.

## 145 Foundations of Rhetoric

An introductory survey of the history and theory of rhetoric as an art central to civic life. Students investigate language as symbolic action and its power to influence others, enable inquiry, shape identity, form community, and promote collective interests. Readings are drawn from ancient and contemporary sources. Writing and speaking assignments cultivate habits of critical analysis and civic engagement.

## 150 Acting I: Fundamentals

Exercises in the actor's basic skills, including scene analysis, sensory work, and improvisation as applied to realistic drama. Classroom performance of memorized scenes is required. May not be taken Credit/ No Credit.

## 151 Theatre Practicum: Performance

Further exploration of the topics examined in Communication Arts 150. Students engage problems in scene analysis, sensory work, vocal production, and stage movement. Emphasis is placed on the student's ability to work within a production team and to document and analyze the production process. Prerequisites: Communication Arts 150 and permission of the instructor. One semester credit hour. Credit/No Credit only.

## 170 Oral Interpretation

Development of the voice as a communication tool through the study of projection, articulation, and expression of mood and character. Analysis of written material for oral presentation. Classroom performance before an audience is required.

## 180 Introduction to Theatre Production

A lecture and laboratory course dealing with the problems of physical setting as an integral part of theatre communication. Standard
production theory and practice in scenery, lighting and sound.

## 181 Theatre Practicum: Production

Further exploration of the topics examined in Communication Arts 180. Students engage problems in production communication, procedures, and systems operations. Emphasis is placed on the student's ability to work within a production team and to document and analyze the production process. Prerequisites: Communication Arts 180 and permission of the instructor. One semester credit hour. Credit/No Credit only.

## 190 Special Topics

## 200 Fundamentals of Play Direction

Literary analysis of the play from the director's point of view. A lecture and laboratory course dealing with the problems of translation from script to stage in terms of composition, picturization, movement, pantomime, rhythm and tempo. Emphasis on the realistic proscenium theatre. Prerequisite: Communication Arts 150 or permission of instructor.

## 211 Topics in Scenic Production

Lecture and laboratory that explore the realization of scenic designs for the live performance. Topics may include automation, scene painting, stage properties, structural design, or theatrical rigging. Prerequisite: Communication Arts 180 or permission of the instructor. Two semester credit hours.

## 212 Topics in Lighting and Sound Production

Lecture and laboratory that explore the realization of lighting and sound designs for the live performance. Topics may include electrical theory, transduction, photometrics, control technologies, production documentation, automated fixtures, signal manipulation, or live sound reinforcement. Prerequisite: Communication Arts 180 or permission of the instructor. Two semester credit hours.

## 213 Topics in Costume Production

Lecture and laboratory that explore the realization of costume designs for the live performance. Topics may include garment construction, fabric manipulation, flat-pattern drafting, draping, stage makeup, or mask construction. Prerequisite: Communication Arts 180 or permission of the instructor. Two semester credit hours.

## 220 Media Criticism

A writing intensive exploration of the practices and methods of media criticism and close textual analysis. Students read and write essays surveying a variety of perspectives and approaches to the criticism of media. Assignments encourage students to carefully examine the texts and contexts of contemporary media, paying close attention to the aesthetic, generic, and cultural features of specific media artifacts.

## 225 Text and Performance

An introduction to dramatic and theatrical analysis. In this course, models of critical theories (historical, textual, political) will be used to further the student's understanding of dramatic literature across several periods. Emphasis will be on written analysis, discussion, and dramaturgical research. Prerequisite: Communication Arts 130 or permission of instructor.

## 230 Production Design I

An exploration of the communicative role design plays within the performing arts. Students learn basic design building blocks and communication theory as they apply to theatre and design. Emphasis is placed on developing the student's ability to communicate visual ideas coordinated within a performance framework.

## 235 Communicating in Public

A practical introduction to the skills and theory of public presentation. Students perform a number of formal speeches and engage with
theoretical readings on the nature of rhetorical context, audience, persuasion, and publics. This course fosters a commitment to civic engagement by introducing and exploring questions of social processes of change.

## 240 Rhetorical Criticism

A writing-intensive introduction to textual criticism grounded in rhetoric. Students study theories of rhetorical analysis and learn to write critical essays that assess the efficacy of rhetorical artifacts (speeches, essays, images, public spaces) in relation to community problems.

## 255 Topics in Rhetoric

An investigation of performance, ritual, ceremony, oratory, or narrative film from a rhetorical perspective. Students exercise skills in observation and analysis, oriented toward one or more of the key relationships of symbolic action: presentation and representation, self and other, individual and community, rhetor and audience, necessity and expedience, theory and practice. Prerequisite: At least one introductory Communication Arts course or permission of the instructor.

## 260 Topics in Media

Exploration of a specific topic in media theory, history, or criticism. Topics may include gender, sexuality \& media, interpreting popular culture, the cultural history of the situation comedy, national and international virtual identities, and broadcast history.

## 265 Topics in Production

An exploration of a specific topic in film and video production. Topics may include historical, cultural, social, political, and theoretical approaches to creative communication practices. Students apply the lens of each topic to the practice of production.

## 270 Acting II: Voice and Movement

A concentration on the physical nature of the actor's work. Primary emphasis will be on vocal production for the stage and a variety of approaches to stage movement. Classroom performance of memorized scenes is required. May not be taken Credit/No Credit. Prerequisite: Communication Arts 150.

## 275 Topics in Communication

An interdisciplinary exploration of the creative processes of communication. Possible topics include mysteries of communication, ethnography, intercultural communication, tragicomic communication, and communication ethics.

## 280 Stage and Production Management

A survey of management practices specific to theatrical production. Students investigate organizational structures and procedures for the performing arts, personnel coordination, production communication and documentation, standard labor agreements, contracts, and other legal issues pertaining to theatrical production. Prerequisite: Communication Arts 180 or permission of the instructor.

## 281 Theatre Practicum: Management

Further exploration of the topics examined in Communication Arts
280. Students engage problems in management structure, personnel coordination, and production procedures and communication. Emphasis is placed on the student's ability to work within a production team and to document and analyze the production process. Prerequisites: Communication Arts 280 and permission of the instructor. One semester credit hour. Credit/No Credit only.

## 290 Visual Production I: Television Production

The study of aesthetic concepts and production techniques involved in small studio video production. Students produce programs which
demonstrate an understanding of the various production elements and how they can be combined for effective communication.

## 300 Visual Production II: Electronic Field Production

Through the use of portable video equipment and editing facilities, the student explores the processes by which realities are constructed by the electronic media. Prerequisite: Communication Arts 290.

## 315 Theatre History I: Classical Ages of the Theatre

Close study of several major periods in Western theatre history, commencing with the origins of drama and concluding with the closing of the English playhouses in 1642. The course focuses on individuals, events, and dramatic forms that have contributed to the development of the theatre as a complex institution. In a larger sense, lectures and class discussions examine how these developments are shaped by the political, social, and intellectual forces of their time. Prerequisite: Communication Arts 130 or permission of instructor.

## 325 Theatre History II: The Revolutionary Stage

A survey of significant, revolutionary periods in the development of Western theatre through the seventeenth, eighteenth and nineteenth centuries. The craft, theory, technique, and dramaturgy of major movements including French neoclassicism, the English Restoration, romanticism, melodrama, and realism form the basis of study. Prerequisite: Communication Arts 130 or permission of instructor.

## 330 Production Design II

A lecture and studio course designed to provide the student with a beginning portfolio of work and a functional knowledge of advanced design theory. Emphasis is placed on the student's ability to communicate through drafting, sketches and representational models. Prerequisites: Communication Arts 180 and 230, or permission of the instructor.

## 335 Advanced Topics in Rhetoric

An advanced examination of particular issues or concepts in rhetorical theory. Topics may include: visual rhetorics, the public sphere, identity politics, rhetoric of science, rhetoric and corporeality, or material rhetoric. Prerequisite: Communication Arts 220 or 240, or permission of the instructor.

## 351 Media and Identity

Advanced reading in theories of media and identity. Students explore the ways in which media texts, industries, and practices work to both construct and challenge our notions of identity. Readings may focus on issues of nationalism, globalism, race, class, gender, sexuality, ritual, or other elements of media identities. Prerequisite: Communication Arts 220 or 240 , or permission of the instructor.
360 Rhetoric and Civic Engagement
An inquiry into the nature and role of rhetoric in a civil society. Democracy is based on an engaged citizenry, actively advocating their positions and constructing reasoned, persuasive arguments. Students will explore theories of civic engagement and engage in various practices of public advocacy in order to better understand the importance of rhetoric to democratic society in contemporary America. Prerequisite: At least one introductory Communication Arts course or permission of the instructor.

## 375 Documentary Tradition

An exploration of the development and impact of the documentary genre in film and television. Students are exposed to films that probe a social, economic, or political issue. The written analysis and discussion of the films screened emphasizes process, style, and historical perspective. Students produce their own documentary in video as their major project for the course.

## 380 Acting III: Styles in Performance

Continued study of an actor's skills, including style in period or nonrealistic plays. Acting for the camera may also be covered. Classroom performance of memorized scenes required. May not be taken Credit/ No Credit. Prerequisite: Communication Arts 150.

## 385 Studies in Public Discourse

An exploration of the significant public discourse of a particular speaker, group, movement, or chosen period in American history. Our focus is on analyzing the rhetorical force, historical context, and argumentative strategies of public discourse (such as speeches, essays, letters, etc.) in order to better understand how such texts contribute to social and political change. The particular topic varies by instructor. Prerequisite: At least one introductory Communication Arts course, or permission of the instructor.

## 425 Advanced Play Direction

A lecture and laboratory course dealing with the auditory, visual, and kinetic analysis of the script. Theories of perception and communication are also dealt with. Emphasis on the problems of directing in the nonrealism, non-proscenium theatre. Prerequisite: Communication Arts 200.

## 430 Advanced Topics in Theatre

Advanced level examination of developments in theatre performance.
Topics may include: performance studies, nineteenth-century American theatre, musical theatre, community-based theatre, Asian theatre. Offered every other year. Prerequisites: Communication Arts 130 and 225.

## 460 Advanced Topics in Communication and Diversity

An advanced exploration of contemporary controversies within communication and cultural studies. Topics may include: multiculturalism, post/anti-colonialism, globalization, queer theory, gender studies or identity politics. The course centers on the questioning of representation and received understandings of key concepts such as gender, race, ethnicity, class, sexuality and religious difference within the discipline of communication. Prerequisite: Communication Arts course at the 300 -level, or permission of the instructor.

## 465 Media and Cultural Theory

A thorough immersion in the theories of media and cultural studies. Students engage both classical and contemporary theories of media and cultural meaning making. Readings are advanced and challenging, exposing students to sophisticated primary and secondary sources and encouraging them to develop more informed, complicated, and critical relationships to contemporary media and culture. Prerequisite: Communication Arts 220 or 240, or permission of the instructor.

## 471 Rhetorical Theory

An advanced study of ancient and contemporary theories of rhetoric, with emphasis on interpreting primary sources. Students investigate the interrelationship of rhetoric, poetic, ethics, and politics, considering the impact of symbolic action on knowledge, truth, power, beauty, and judgment. Prerequisite: Communication Arts 220 or 240, or permission of the instructor.

## 500 Internships

Credit: Two or four semester hours. Internships sponsored by the Communications Arts department require the joint approval of a faculty liaison person and the host agency. Information on internship positions is also available from ACCEL.
Internships with Public and Commercial Television/Radio Stations
Liaison: Professor Keeley
Students may choose to work in one or more of the following areas of
public and commercial television: production; publicity and public relations; fund raising and development in public television accounting and business management; continuity writing; and broadcast writing. Past interns have worked with WQLN, Erie; WSEE-TV, Erie; WJET-TV, Erie; WICU-TV, Erie; KDKA-TV, Pittsburgh; WPXI, Pittsburgh; WQED, Pittsburgh; WEWS, Cleveland; and NBC headquarters, New York.
Internship in Graphic Arts, Public Relations, and Advertising Liaison: Professor Keeley
The internship is designed as a practicum in the areas of graphic arts, preparation of audio-visual materials, copy writing, photography, promotion planning, radio commercial preparation, and educational program production. Interns follow a general orientation program, which will involve contact with commercial and service organization clients. The culminating point of the internship experience will be a client-oriented project for which the intern is the primary researcher and producer.
Internship in Cable Television System
Liaison: Professor Keeley
A practicum in the areas of cable television program production, management, community relations, and special problems in the cable system operation, subject to the approval of the host agency.

## Internship in Arts Administration

Liaison: Professor Cosdon
The intern works in the administration of a professional arts organization in one or more of the following areas: fund raising and development; promotion, publicity, and public relations; touring and booking; financial administration; house management; rehearsal management; community relations and education outreach programs. Past interns have been with the Pittsburgh Alloy Dance Theatre; the Three Rivers Shakespeare Festival; Meadville Council on the Arts; The Pittsburgh Foundation; and the Trumbull (Ohio) Council on the Arts.

## Internship in Theatre Arts

Liaison: Professor Cosdon
The student may choose to work in a theatre organization in one or more of these areas: acting; scene, sound, lighting design; house management; box office and publicity; costume design and management; stage management; financial administration; rehearsal and production responsibilities; properties; and scenery, sound, lighting, and costume construction.

## 581 Communication Junior Seminar

582 Theatre Junior Seminar

## 583 Production Junior Seminar

An intensive production class which explores visual and aural elements, which contribute to the art of narrative cinema. Early films, fictional and non-fictional, are used to study the origins of modern cinema. Each student makes short projects exploring filmic principles chosen from those presented in class. As a group, students produce a lengthier project and then arrange and promote a public screening. Students create a coherent visual style, understand the logistics of production, and gain an overview of the marketplace. Prerequisites: Communication Arts 290 and 300. Offered every other year.

## 590 Independent Study

Available to qualified students seeking to do advanced work outside the scope of scheduled course offerings. A project proposal must be submitted and approved in the semester prior to the semester in which the student registers for the course. Credit: Two or four semester hours.

## 600 Comprehensive Seminar

Preparation for the Senior Comprehensive Project. Students study
research methods, conducting exploratory research, developing focused topics, and addressing issues of composition and revision. Much of the work for the seminar is conducted independently; the culminating assignment is a Comprehensive Project Proposal. Credit: one semester hour. Offered credit/no credit only. Co-requisite: a Communication Arts Junior Seminar.

610 Communication Senior Project
To be arranged.

## 611 Theatre Senior Project

To be arranged.

## Sophomore Seminar

FS COM 201 Communication in a Discipline
Visual Culture
An introduction to speaking and writing in the disciplines of Communication Arts and Theatre. Emphasis is placed on critical examination of visual culture, particularly mass-mediated images from movies, TV shows, movies, advertisements, graphic novels, and the web. We also consider the visual aspects of live performances in theatre, social protests and everyday life. Students are encouraged to explore the political consequences of visual practices, especially how visual culture influences collective actions and shapes collective identities. This course may be counted towards the major or minor in Communication Arts and Theatre.

## Computer Science

Professors Roos, Cupper, Jadud, Kapfhammer

Computer Science is about computers and computation; the essence of the discipline is the study of algorithms-the design, development and characterization of algorithms, their realization as computer programs, the analysis of the correctness and efficiency of algorithms, and the limitations of the algorithmic method as an approach to problem solving. The department's offerings include an introduction to the discipline including programming, data structures, and discrete mathematics; core courses in theoretical computer science, computer languages, computer organization, algorithm analysis and software systems design; advanced courses in compiler design, operating systems and distributed systems; and a variety of applications and electives. The human dimensions of computing-social, professional and ethical implications-are treated throughout the department's courses. The Computer Science programs have an integral laboratory component-nearly all of the courses include a weekly formal laboratory session to provide for practice and experimentation utilizing the principles learned in the classroom and from the course texts. The laboratory component affords the opportunity for hands-on experience with several computing and network systems. The Department has laboratories adjacent to faculty offices and classrooms in Alden Hall including an advanced-technology computer science classroom, facilitating interactive learning; a software development laboratory designed for group work on large software systems; and a laboratory for advanced coursework and research.

The study of computer science leads to and requires the ability to analyze ideas, to think logically, and to communicate ideas clearly and concisely. In this way, study of computer science contributes to the foundation of an excellent liberal arts education.

## Programs

The major and minor field programs are designed to provide a solid academic basis in the principles of computer science combined with practical experience in software systems design, implementation and analysis. Courses are divided into four categories: basic courses, core courses, advanced courses and applications. There are two majors in computing, Computer Science and Applied Computing, and several interest-focused minors.

The Computer Science major is designed to prepare students for advanced study of computer science or any of a variety of positions in the computing industry or in other industries requiring computing expertise. The Applied Computing major is designed to prepare
students for entry level software development positions or entrepreneurial and management positions in computing and computing related areas.

## The Computer Science Major

The major in Computer Science requires successful completion of at least 44 semester hours in Computer Science. A student seeking a Bachelor of Science degree in Computer Science must complete the three basic courses, Computer Science 111 and 112, and Mathematics 205 (see Mathematics course descriptions); four core courses, Computer Science 210, 220, 230, and 250; plus one or more advanced courses,

Computer Science 420, 440, or 441; and two Computer Science electives. Computer Science electives may be chosen from courses listed in the core, applications and advanced categories below, or in some cases, special topics courses (Computer Science 490) or independent study courses (Computer Science 590). Additionally, students pursuing the major in Computer Science must complete a mathematics unit consisting of two courses to be chosen from Mathematics 320, 325, 345, 360 , and 365 , or, with approval of the faculty of the Department of Computer Science, some special topics courses in mathematics (those numbered 490 through 499). Students who plan to pursue graduate studies in Computer Science are encouraged to also complete the calculus sequence through Mathematics 210. As a capstone to the major in Computer Science, the student must complete the Junior Seminar (Computer Science 580), and write and defend a Senior Thesis (Computer Science 600 and 610).

## The Applied Computing Major

Students seeking to major in Applied Computing must select either the Software Development track or the Management and Entrepreneurship track.

## The Software Development Track

The major in the Software Development track of the Applied Computing major requires successful completion of at least 44 semester hours in computer science, four semester hours in economics, and 12 semester hours in mathematics. Students must complete:

1. Four basic courses, Computer Science 111 and 112, Mathematics 205, and Economics 100.
2. Four core courses, Computer Science 210, 220, 250, and 290.
3. One advanced course, Computer Science 440 or 441.
4. One applications course: Computer Science 370, 380, or 381.
5. An internship sequence consisting of Computer Science 500, an internship approved by the department faculty, (Computer Science 510-512), and Computer Science 501. If, after completion of CS 500, the student is unable to obtain an internship meeting the department's guidelines, the department may allow a substitute requirement. In any case, the student must complete CS 500 and 501.
6. A mathematics unit consisting of Mathematics 170 , and either Mathematics $320,345,360$, or 365 .
7. As a capstone, the student must complete the Junior Seminar (Computer Science 580), and prepare and defend a Senior Project (Computer Science 600 and 610).

## The Management and Entrepreneurship Track

The major in the Management and Entrepreneurship track of the Applied Computing major requires successful completion of at least 32 semester hours in computer science, 20 semester hours in economics, four semester hours in mathematics, and eight semester hours of research project (junior seminar and senior project) in the student's choice of computer science or economics. Students must complete

1. Four basic courses, Computer Science 111 and 112, Mathematics 205, and Economics 100.
2. Five core courses: Computer Science 210, 220, and 250, and Economics 200 and 240
3. One advanced course, Computer Science 440.
4. One application course, Computer Science 380 or 381.
5. An economics component consisting of Economics 202 and either Economics 290 or 440.
6. An internship sequence consisting of Computer Science 500 , an internship approved by the department faculty (Computer Science 510-512), and Computer Science 501.
7. As capstone, the student must complete an independent research project made up of a Junior Seminar and a Senior Project (Computer Science 580, 600, and 610 or Economics 580-589 and 620).
To graduate with a major in Computer Science or Applied Computing, a student must have an earned GPA of at least 2.0 in required Computer Science and other courses presented for the major.

## The Minor

The minor in Computer Science requires the completion of at least 20 semester hours of course work in Computer Science including one of Computer Science 210, 220, 230, 250 or 290, and an additional eight semester hours of courses numbered 200 or above. Course sequences for various interests follow:

## Theory of Computing

Computer Science 111, 112, 210, 230, and 250;

## Computer Architecture

Computer Science 111, 112, 210, and two of 220, 250, 420, 440, or 441;

## Computer Languages

Computer Science 111, 112, 210, 220, 230, and 420;
Computer Systems
Computer Science 111, 112, 210, 220, and 440 or 441;

## Artificial Intelligence

Computer Science 111, 112, 210, 220, and 370;

## Computers, Databases, and Data Transmission

Computer Science 111, 112, 210, 380, and 381;

## Computers and Mathematics

Computer Science 111, 112, 230, 250, and 360;

## Computer Applications

Computer Science 111, 112, one of Computer Science 210, 220, 230, 250 , or 290 , and two of the following: $303,360,370,380$, and 381 ;

## Software Systems Design

Computer Science 111, 112, 210, 220, and 290;

## Computer Interface Design

Computer Science 111, 112, 210, 290, and 390.
With the exception of Computer Science 111, no course presented for the major or minor in Computer Science may be taken on the Credit/No Credit grade basis.

Unless otherwise noted, all Computer Science courses count as four semester credit hours.

## Basic Courses

## 111 Introduction to Computer Science I

An introduction to the principles of computer science with an emphasis on algorithmic problem solving and the realization of algorithms using a modern object-oriented programming language. Topics include algorithms, problem solving, programming, classes, primitive data types and objects, control structures, arrays and vectors, principles of objectoriented design and programming, and an introduction to graphics and graphical user interfaces. The course also includes an overview of the discipline of computer science and a study of the social implications of
computer use. May serve as the laboratory course in the Natural Science Division's distribution requirement. One laboratory per week. Prerequisite: Knowledge of elementary algebra.

## 112 Introduction to Computer Science II

A continuation of Computer Science 111 with an emphasis on data structures, data abstraction, algorithm design, the analytical and experimental evaluation of algorithm performance, and object-oriented design and implementation techniques. Topics include stacks, queues, deques, lists, strings, trees and graphs, dictionaries, recursion, searching and sorting algorithms, and an introduction to program verification. May serve as the laboratory course in the Natural Science Division's distribution requirement. One laboratory per week. Prerequisite: Computer Science 111 or permission of the instructor.

## Core Courses

## 210 Principles of Computer Organization

An introduction to the basic organization and operation of computers including logical structure, hardware components, machine and assembly language, and computer system performance. Topics include internal representation of information, instruction set architecture, instruction types and addressing techniques, computer arithmetic, memory systems, design and operation of the control unit, input/output devices and interfaces, assembly language and translation techniques, and modern architectural enhancements such as pipelining and multiprocessors. Special emphasis is on systems programming and assignments in a particular assembly language. One laboratory per week. Prerequisite: Computer Science 112.

## 220 Programming Language Concepts

A study of the important concepts in the design of programming languages, with emphasis on data types, scoping, binding times, control structures, facilities for abstraction, parallel constructs, and storage allocation. Language constructs are evaluated both for their usefulness in supporting the software development process and the overhead incurred in implementing and using them. Both procedural and nonprocedural languages are studied, and students acquire enough literacy in a few of these languages to write moderately sophisticated programs. One laboratory per week. Prerequisite: Computer Science 210.

## 230 Theory of Computation and Formal Languages

(also listed as Mathematics 310)
An introduction to the theories of finite-state machines, pushdown automata and Turing machines as well as the relation between automata and the formal languages they recognize. Students explore computational theory and its practical applications in lexical analysis and language parsing. Prerequisites: Computer Science 112 and Mathematics 205 or permission of instructor. Offered in alternate years.

## 250 Analysis of Algorithms

A treatment of selected topics from the analysis of algorithms including models of computation, design of efficient algorithms, computational complexity, and NP-completeness. Students develop expertise in mathematical analysis and algorithmic programming methodology. One laboratory per week. Prerequisites: Computer Science 112 and Mathematics 205.

## 290 Principles of Software Development

A study of the principles and concepts used in the specification, design, implementation, testing, and maintenance of large software systems. Topics include requirements elicitation and analysis, formal specification, software architectures, object-oriented design, software measurement, software testing and analysis, and evolution of a program.

Students practice the principles of software development by participating as group members in the creation of a significant software application. One laboratory per week. Prerequisites: Computer Science 210 and 220 or permission of the instructor. Offered in alternate years.

## Applications

## 303 Human-Centered Design

A collaborative introduction to interface design. Students engage with members of the local community to design (not program or develop) an interface to a real-world system. Over the course of a semester, students identify target users for a design, elicit and model user goals, define a conceptual model that supports user tasks to accomplish defined goals, and develop paper-based prototypes and case studies to inform the future implementation of software. Students also evaluate existing systems using a variety of methods. One two-hour design studio per week. Open to students of all backgrounds.

## 360 Scientific and Numerical Computation

A study of computational methods for the solution of algebraic and differential equations and systems of equations, interpolation and approximation, numerical integration, calculation of eigenvalues, and error estimation. Implementation of these techniques using generalpurpose programming languages and symbolic arithmetic systems is explored. Theoretical issues include the nature of computer arithmetic and error generation and propagation. One laboratory per week. Prerequisites: Computer Science 111, Mathematics 290 and 320, or permission of the instructor.

## 370 Artificial Intelligence

A survey of the theory, computational techniques, and applications of artificial intelligence. Topics include agents, knowledge representation, machine learning, general problem solving, natural language processing, neural networks, evolutionary computation, computer vision, robotics, and philosophical questions. One laboratory per week. Prerequisite: Computer Science 112. Offered in alternate years.

## 380 Principles of Database Systems

A study of the design and implementation issues in database management systems. Topics include data models, logical/physical database design, data access/search techniques, normalization theory, mappings from logical to physical structures, storage, and utilization. Additional topics include database reorganization, migration, database integrity, consistency, privacy and security, distributed database systems, architecture of knowledge-based systems, and intelligent query interfaces. One laboratory per week. Prerequisite: Computer Science 112. Offered in alternate years.

## 381 Data Communications and Networks

An introduction to the theory and techniques of data communications and network design and analysis. Topics include data communications concepts, layered network architectures, local and wide area networks, protocols, switching, routing, security, and areas of current interest. The protocols of the Internet and the World Wide Web are used throughout to illustrate networking concepts. Students complete a large programming project involving some aspect of networking. One laboratory per week. Prerequisite: Computer Science 112. Offered in alternate years.

## 390 Visual Computing

An introduction to the fundamentals of computer graphics, visualization, and visual computing. Topics covered include concepts of light,
color, two- and three-dimensional representations, data visualization, image processing, image rendering, and animation. These concepts are illustrated using medical imaging, simulation, human vision processing, computer art, and other applications. Laboratory assignments covering each major course topic provide a solid basis for advanced work in computer graphics and visualization. One laboratory per week.
Prerequisites: One course in programming and one course in mathematics, or permission of the instructor.

## Advanced Courses

## 420 Introduction to Compiler Design

An introduction to the basic concepts of compiler design and implementation from lexical, syntactic, and semantic analysis to target code generation. Topics are presented from an implementation point of view. The semester project includes construction of a compiler for a small language using lexing and compiler-compiler languages. One laboratory per week. Prerequisite: Computer Science 220, or permission of instructor. Offered in alternate years.

## 440 Operating Systems

A study of operating systems and their design and implementation. Topics include the evolution of modern computer operating systems, basic components of an operating system, and hardware issues of importance to operating system design and implementation. Consideration is given to processes and threads, resource (processor, memory, device, and software) management, process and device scheduling, deadlocks, input/output, file systems, and system security. A representative operating system is examined in detail. One laboratory per week. Prerequisite: Computer Science 210. Offered in alternate years.

## 441 Principles of Distributed Systems

An examination of the principles and paradigms associated with the design, implementation, and analysis of distributed systems. Topics include the characterization of distributed system models, remote communication, distributed scheduling, synchronization and mutual exclusion, naming and time, consistency and replication, and fault tolerance. Selected distributed system development environments are discussed in the context of the above topics. One laboratory per week. Prerequisites: Computer Science 290 or 440 or permission of the instructor.

## Internships

## 500-501 Internship Seminar

A corequisite seminar for all students participating in the Internship Program. Internship students enroll twice, once prior to and once following the Internship. Computer Science 500 focuses on expectations and planning, leading to the Internship Proposal required for all students planning an internship. Computer Science 501 provides the opportunity for students who have completed the Internship to prepare written and oral reports on the Internship experience. The student, in consultation with the faculty of the Department of Computer Science, is responsible for arranging for an acceptable internship. The courses meet together weekly for one-half a semester. Credit: One semester hour for each course. Prerequisites: Completion of at least two core courses.

## 510 Internship: Software Development

An experiential learning opportunity with an employer in the area of software development. Students identify a potential employer as part of their work in the first internship seminar, Computer Science 500, work (usually during the summer) for this employer under the guidance of a
mentor, write a report on their experiences, and share the insights gained from the internship with the Department in a public presentation. Students mentor future interns as part of the second internship seminar, Compuer Science 501. Prerequisite: Computer Science 500. Corequisite: Computer Science 501. Two credits.

## 511 Internship: Management

An experiential learning opportunity with an employer in the area of management of software projects. Students identify a potential employer as part of their work in the first internship seminar, Computer Science 500 , work (usually during the summer) for this employer under the guidance of a mentor, write a report on their experiences, and share the insights gained from the internship with the Department in a public presentation. Students mentor future interns as part of the second internship seminar, Computer Science 501. Prerequisite: Computer Science 500. Co-requisite: Computer Science 501. Two credits.

## 512 Internship: Computing

An experiential learning opportunity with an employer in some area of computer science other than software development or software management, e.g., database or network management. Students identify a potential employer as part of their work in the first internship seminar, Computer Science 500, work (usually during the summer) for this employer under the guidance of a mentor, write a report on their experiences, and share the insights gained from the internship with the Department in a public presentation. Students mentor future interns as part of the second internship seminar, Computer Science 501. Prerequisite: Computer Science 500. Co-requisite: Computer Science 501. Two credits.

## Other Courses

## 580 Junior Seminar: Topics and Research Methods in Computer Science

An advanced treatment of selected topics from various areas of computer science with an emphasis on appropriate research methods. Practical skills are acquired in technical writing, critical reading, and presentation of technical literature in preparation for the senior project. One laboratory per week. Prerequisite: Completion of the computer science core or permission of the instructor.

## 590 Independent Study

Individual research under the guidance of a member of the
Department's faculty. A project proposal must be submitted to the Department and approved in the semester prior to the semester in which the student intends to register for the course.

## 600 Senior Thesis I

Independent research in computer science. Prerequisite: Computer Science 580. Credit: One semester hour.

## 610 Senior Thesis II

Continuation of independent research in computer science. Prerequisite: Computer Science 600. Credit: Three semester hours.

# Dance and Movement Studies 

Professors Weisman, Reedy, Sumerfield

Dance and Movement Studies provides an experiential program that explores the relationship of movement to self, culture, and environment. The program is multi-dimensional and offers students the opportunity to enhance technical skill and personal presence, to promote wellness and self-discovery, to investigate performance values, and to build community. It enriches applications to education through expanding how students think about the learning process, acknowledging that an individual's kinesthetic experience can be a tool for learning, providing possibilities for internship practicums, and informing the knowledge base of prospective educators regarding how humans learn through movement. Practices are designed to develop ease of movement, flexibility, power, and expressiveness. In addition students are guided in expanding their awareness of and their experience with the diverse and dynamic language of movement. Dance and movement can be used as metaphors for finding personal meaning and appreciating individual, social, and environmental differences.

In the studio, the critical analysis practice involves asking questions, making observations, reflecting on possibilities, and articulating choices. The program draws on resources that include somatic experience, community interaction, scholarly writings, film and video, and contemporary critical reviews. By considering the implications of dance and movement as cultural signifiers, the program fosters activity that integrates the individual with society and the world. Students pursuing a minor in Dance and Movement Studies fulfill requirements in the Humanities Division. Flexibility in course study is permitted to meet a student's individual interests and needs.

## The Minor

The minor in Dance and Movement Studies consists of a common core of twelve credits:

DMS 100 - Principles of Movement ( 2 credits)
DMS 200 - Landscapes of the Body (2 credits)
DMS 370 - Creative Processes (4 credits)
FS DMS 201 - Dance: Ritual of Experience ( 4 credits)
Students choose one additional four-credit course from the following electives:

INTDS 312 - The Neuroscience of Dance and Movement
DMS 470 - History of Contemporary Dance
DMS 580 - Movement and Meaning: Experiencing, Observing, and Analyzing Movement as a Primary Text.
In addition students take at least ten credits of practice courses for a total of 26 semester credits. All courses are to be graded. Participation is required in at least one presentation or performance sponsored by the Allegheny Dance and Movement Studies Program. Students are encouraged to seek advice from Dance and Movement Studies faculty in selecting practice courses that suit their interests and goals.

## DMS $100 \quad$ Principles of Movement

The study and practice of basic principles of movement. Readings and guided practices provide an understanding of anatomical and kinesiological issues that surround balanced, fluid and efficient human movement. Credit: Two semester hours.

## DMS 101 Modern Dance: Body and Movement

A basic approach to modern dance as an applied study of movement coordinations. Practical explorations focus on correct body alignment and efficient movement in relation to gravity, and directing energies in the body toward enhanced expressiveness. Elemental analysis of space,
time, dynamics, form, sensation, image, and intention are introduced. Designed sequences and improvisations develop presence, balance, flexibility, strength, and endurance. Theoretical investigations include discussions of the interweaving of dance and culture. Credit: Two semester hours.
DMS $102 \quad$ Ballet for Modern Dancers
An introduction to the technique of ballet through movement analysis theory and somatic principles. Emphasis is placed on aspects of human movement including spatial tensions, qualities of movement, and bodily efficiency in application to the practice of ballet. Style analysis includes an investigation into the historical influences as well as the cultural values and trends that led to the emergence of contemporary ballet in America. Credit: Two semester hours.
DMS 104
Jazz Dance
A study of fundamental dance movement that focuses on the broken line, undulating form, and syncopated rhythms of the American Jazz idiom. The utilization of and commitment to the safe and full use of the body is emphasized. Particular attention is paid to ways in which jazz dance mirrors the social history of the American people, reflecting ethnic influences, historical events, and cultural changes. Credit: Two semester hours.

## DMS 105 Tap Dance

A study that combines the earthy African influence of hoofing and the light percussive footwork of clog dancing with the rhythmic syncopations of the jazz idiom. Emphasis is on physical balance, precision of touch, ankle articulations and an investigation of the origins and contemporary evolution of tap dance. Credit: Two semester hours.

## DMS 106 Cultural Dance

The experiential learning and theoretical investigation of the origins and implications of basic cultural dance forms such as American Square Dance,

Israeli Folk Dance, Clogging, Native American Dances, Belly Dancing, Greek Folk Dancing, Butoh and others. Comparison will be made between different cultural dance forms in terms of specific geographies, ceremonies, and other functions. Credit: Two semester hours.

## DMS 107 Introduction to Ballroom Dance

The experiential learning of basic ballroom dance forms: waltz, foxtrot, swing, tango, cha-cha, rumba, and polka. In addition, these dance forms and their music are explored as mirrors of the culture in which they exist-reflecting past, present, and intercultural exchange. Lectures, film, discussion, and papers illustrating the forms and culture of ballroom dancing are required. Credit: Two semester hours.

## DMS $110 \quad$ Yoga I

A balanced investigation of the theory and practice of classic and contemporary Yoga principles. Focusing on the theme of personal wellness, emphasis is placed on practicing physical postures, exploring the breath, and developing an energetic of sound. These practices nourish the body, focus the mind, and sharpen the intellect. Experiences include individual and group work. Credit: Two semester hours.

## DMS 111 Ta'i Chi Ch'uan

A physical and intellectual examination of Ta'i Chi Ch'uan. Ta'i Chi Ch'uan is a Chinese system of exercise, a form of moving meditation and a martial art. Students learn a basic form or series of postures. We examine the cultural, historical, religious and psychophysical underpinnings of this art through reading and discussion. Credit: Two semester hours.

## DMS 112 Community Contra Dance

Students attend a weekly $2 \frac{1}{2}$ hour community dance on campus with live music. A series of particular dance steps are taught to focus on the development of body movement, coordination, and aerobic endurance. Two lecture/discussion sessions examine: 1) the historical development of this dance form (from 18th-century America to the present day) and 2) the music form that accompanies this type of dance. A mandatory field trip to a regional dance is required toward the end of the semester. Credit: One semester hour.

## DMS 114 Asian Martial Arts

Physical training and intellectual exploration of a specific Asian martial art. Students learn basic physical techniques of the form. Explorations include the historical, cultural, and philosophical bases of the particular Asian martial art through reading and discussion. Each semester focuses on a specific form such as Tang Soo Doo (Korea), Kung Fu (China), Karate (Okinawa). Credit: Two semester hours.

## DMS 120 Meditation: Theory and Practice

A study of meditation techniques with a focus on the theory and practice of mindfulness as it evolved in the classic traditions of Yoga and Buddhism. Alignment, posture, health, and mental focus are explored in the context of classical and contemporary writings. Credit: Two semester hours.

## DMS 121 Meditation: Contemplative Explorations

A study of the structures that support meditation. Traditions of meditation in non-dual points of view are explored along with the practices of stillness, contemplative movement, chanting, japa, and mantra repetition. Readings and discussion articulate theories underlying contemplative experience. The practice focuses on individual meditation as well as meditation with partners and in groups. Credit: Two semester hours.
DMS 200 Landscapes of the Body
A mindful process-oriented exploration of experiential human
physiology and anatomy. The study relates basic principles of human movement to dynamic body systems. The impact of movement on the body-mind as well as the converse is examined. Emphasis is placed on applications to somatic practices and includes a developmental movement perspective. Investigations include readings, drawing, research, writing, and improvisation. Credit: Two semester hours.

## DMS $201 \quad$ Upper Level Technique - Modern

A continued exploration of the body-mind connection as expressed and experienced through modern dance. Refinement of movement skills and understanding of elemental analyses are developed through challenging movement sequences and improvisations. Emphasis is placed on the poetry of movement phrasing. One's dancing self is cultivated through the individual as well as the ensemble movement process. Relevant readings, written reflections, rehearsals, and performance projects augment and enhance the technical growth. Credit: Two semester hours.

## DMS 202 <br> Upper Level Technique - Ballet

A more advanced study of the technique of ballet. Development of skill in the tradition of balletic forms is encouraged with an emphasis on alignment and expressiveness. Focus is on ease of motion while increasing physical understanding of ballet vocabulary. In addition to physical practice, the examination of ballet includes reading, observing performances, and writing. Credit: Two semester hours.

## DMS 203 Contact Improvisation

Instruction in the use of the dynamic physics of the human body while moving in contact with other people, in duet and larger groups. Contact Improvisation draws upon the daily experience of ordinary movement, the kinetics of gymnastics, and the partnering techniques of modern dance. Additionally, the cultural relevance of this gender neutral social dance form that emerged out of the sixties avant-garde and counter culture in America is explored. Credit: Two semester hours. Prerequisite: Dance and Movement Studies 100 or permission of instructor.

## DMS 204 Jazz Dance II

A further exploration of cultural, creative, educational, and technical aspects of American Jazz Dance. Particular attention is paid to similarities and differences in Jazz Dance styles and origins. Credit: Two semester hours. Prerequisite: Jazz Dance I.

## DMS 205 Tap Dance II

A direct extension of Tap Dance I. This course helps students develop a more complete understanding of Tap History, Terminology and Techniques. Students also examine the styles of significant Tap Dance choreographers and begin to learn basic Tap Dance notation. Credit: Two semester hours. Prerequisite: Tap Dance I.

## DMS 207 Latin Dance II

An in-depth exploration of three Latin Dance forms-mambo, samba and cha-cha-as well as an introduction to Argentine tango. Through practice, text, and film this inquiry extends the exploration of the Latin social dance forms begun in Ballroom Dance I. Lectures, film, discussion, and papers illustrating the forms and culture of ball-room dancing are required for this course. Credit: Two semester hours. Prerequisite: Dance and Movement Studies 107.

## DMS 208 Ballroom Dance II

An in-depth experience in one or more previously introduced dance forms extends the exploration of social dance begun in Ballroom Dance I. Origins and evolutions of at least one form are investigated through text, film, discussion, and writing. Prime candidates for this examination are swing dancing, American tango, foxtrot, and waltz. Credit: Two semester hours. Prerequisite: Dance and Movement Studies 107.

## DMS 209 Liturgical Dance

An exploration of the history of liturgical dance as well as its current role in Western religious practice. Text and experientially based discussion informs the development of movement and choreography to scripture, music and silence. Credit: Two semester hours.

## DMS 210 Yoga II

An investigation of the principles of classic and contemporary Yoga as applied to the individual's personal practice. The underlying theme is that of transformation. Sequencing of classical postures for the practitioner is highlighted. The development of ease in stillness prepares the student for prolonged concentration, contemplation, and meditation. Additional explorations focus on enhancing skill in relationship. Credit: Two semester hours. Prerequisite: Dance and Movement Studies 110.

## DMS 214 Asian Martial Arts II

An in-depth exploration in the style of martial arts introduced in Asian Martial Arts I. Students continue to explore the historical, cultural, and philosophical bases of the particular Asian martial art. Focus is placed on martial arts as a way of life and a pursuit of discipline, control, and fortitude. Credit: Two semester hours. Prerequisites: Dance and Movement Studies 114 and permission of the instructor

## DMS 301 Modern Dance III

Continued practice in the development of movement skills for the dancer's expressive voice. Emphasis is placed on more challenging individual and ensemble movement phrases. Credit: One semester hour. Prerequisite: Dance and Movement Studies 201.

## DMS $302 \quad$ Ballet III

Continued skill building in the expressivity and technical proficiency of the ballet form. Emphasis is placed on the individual's practice of ballet barre and across the floor sequences. Credit: One semester hour. Prerequisite: Dance and Movement Studies 202.

## DMS 304 Jazz Dance III

Continued study of the techniques of American Jazz Dance. Focus is placed on the development of technical proficiency in the various styles of jazz. Credit: One semester hour. Prerequisite: Dance and Movement Studies 204.

## DMS 305 Tap Dance III

Continued practice in the various styles of Tap Dance. The development of skills introduced in previous courses is encouraged. Credit: One semester hour. Prerequisite: Dance and Movement Studies 205.

## DMS 307 Ballroom III - Latin/Rhythm Advanced

An advanced course designed to develop timing, technique, styling and phrasing of the Latin/Rhythm dance forms. Emphasis is placed on the development of movement continuity and advanced techniques characteristic of the Latin styles of mambo, samba, cha-cha, and the Rhythm forms of hustle and swing. Historical context for at least one of the Latin styles or Rhythm forms is examined. Amalgamation of the movements, technique, footwork, and style into choreography is expected at this level. Credit: Two semester hours. Prerequisites: Dance and Movement Studies 107 and 207.

## DMS $308 \quad$ Ballroom III - Smooth Advanced

An advanced course designed to develop timing, technique, styling and phrasing of the Smooth Ballroom dance forms. Emphasis is placed on the development of movement continuity and advanced techniques characteristic of the Smooth style. Historical context for at least one of the Smooth Ballroom forms is examined. Amalgamation of the movements, technique, footwork, and style into choreography is expected at this level. Credit: Two semester hours. Prerequisites: Dance and Movement Studies 107 and 208.

DMS $310 \quad$ Yoga III
Continued study in the sequencing of classical postures and the development of breathing practices to sustain concentrated states of meditation and contemplation. Credit: One semester hour. Prerequisite: Dance and Movement Studies 210.

## DMS 314 Asian Martial Arts III

Continued practice in the style of martial arts taken in Asian Martial Arts II. Focus is placed on the development of technical proficiency, including power, balance, and technique. May be repeated for credit. Credit: One semester hour. Prerequisites: Dance and Movement Studies 214 and permission of the instructor.

## DMS $370 \quad$ Creative Processes: Choreography and Improvisation

An investigation of the conception, selection and organization required for making dances. Readings, viewings, critiques, discussions, performances and papers are required.

## DMS 371 Creative Processes II: Exploring the use of Costumes, Props, and Scenic Element

An analysis of the relationship of costume, prop, and scenic elements to the process of dance making. Emphasis is on the distinction between first (elemental) and second (narrative) functional intention of dances from the perspective of both artist and audience. Requirements include active participation in movement improvisations, choreographies, class discussions, assigned texts, peer reviews, written critical reflections, and a final synthesis paper. Prerequisite: Dance and Movement Studies 370.

## DMS $372 \quad$ Creative Processes III: Exploring Music

An analysis of the relationship of music to the process of dance making. Emphasis is on the imaginative synthesis of music and dance forms. Requirements include active participation in movement improvisations, personal choreographies, class discussion, peer reviews, attendance at performances, assigned texts, and written critical reflections. Prerequisites: Dance and Movement Studies 370 and 371.

## DMS $410 \quad$ Yoga Theory

An investigation of the philosophical ground in the practice of yoga, which was codified by Patanjali some 2500 years ago and remains a living tradition. Through classic and contemporary sources students learn how yoga is at once an art, science, and vision of the human body, mind, and soul. Credit: Two semester hours.

## DMS $470 \quad$ History of Contemporary Dance

An examination of modern and postmodern dance. Of particular interest are the political, social, and artistic environments that have formed and continue to reform genres of dance. The study includes global influences on the nature of dance. Credit: Four semester hours. Prerequisite: Permission of the instructor.

## DMS 520 Internship in Dance Studies

Intensive work in one or more of the following dance studies educational outreach programs: Creating Landscapes for Children and Teens; Aesthetic Education Symposia for Teachers; Middle School Arts Exploration and Immersion Programs; High School Programs for the Gifted and Self-Identified Talented. Interns collaborate in planning, administering and evaluating programs. In addition, they share in the development of exhibitions, performances, and publications of studentgenerated work. Discussions and written reflections, which synthesize experiences of doing and researching, are grounded in seminal arts education texts. Credit: Two to four semester hours. Prerequisite: Permission of the instructor.

## DMS 580 Movement and Meaning: Experiencing, Observing, and Analyzing Movement as a Primary Text

An investigation into the use of movement observation and analysis as a tool for research in the arts and sciences. Both individual explorations and group movement interactions are viewed through the aspects of body utilization, effort dynamics, spatial awareness, and shape changes. Movement analysis is applied to a variety of fields, such as dance, sports, therapy, education, child development, cultural studies, and non-verbal communication. Prerequisites: Dance and Movement Studies 100 and one introductory practice course (DMS 101 through DMS 200).
DMS 590
Independent Study

## Sophomore Seminar

## FS DMS 201 Communication in a Discipline

Dance: Ritual of Experience
An exploration of ritual and ceremonial dances from multiple cultural perspectives, drawing upon insights into dance as human thought and as physical, cultural, social, economic, psychological, political and communicative behavior. Of particular interest is the role dance plays in the expression of both resistances to and maintenance of cultural expressions of power and value. Special emphasis is placed on relating each student's personal experience of dance to the topics covered. Effective writing and speaking within the guidelines of the discipline is emphasized. May count toward a minor in Dance and Movement Studies.

## Economics

Professors Casler, Afrasiabi, Baskan, Cupper, Golden, Goldstein, Liu, Martin, Moskwa, Nonnenmacher, Onyeiwu, Ormiston, Sickafuse

Economics, a social science, studies the production, distribution, and consumption of products and services. The scarcity of human, natural, and other material resources requires that these activities be well-directed to enhance the general welfare of the global population. In the process of learning how human societies could accomplish such goals, economics has come to include a core of widely accepted general theory, techniques for using data to test hypotheses and draw inferences, and skills that are often refined by experience in the application of theory to particular problems. Like many related disciplines in a liberal arts curriculum, Economics emphasizes oral, written, and quantitative methods in courses and seminars.

The Department of Economics offers students a program that requires a balance of theory and application in its curriculum. The offerings are a combination of theory courses, quantitative work, and a number of field courses that are also accessible to non-majors and minors. It is a program designed to provide a liberal educational foundation for citizen and voter, for advanced study in Economics, or other professions, and careers such as international affairs, law, business, finance, education and public policy.

## The Major

The major in Economics is required to take two introductory courses, Economics 100 and 101; two intermediate theory courses, 200 and 201; and two courses in economic statistics, 202, and 203. The core theory and statistics classes should be completed by the end of the junior year. In addition, the major requires two elective 200-level courses; two 400level courses, one of the 580 seminar series, generally taken in the first semester of the senior year; and one section of the Economics 620, Senior Project Workshops, generally taken in the second semester of the senior year. Economics 160 can be used as a substitute for one of the 200-level elective courses, and Economics 360 or 370 can substitute for one of the 400 -level courses.

Economics majors are required to have a GPA of at least 2.0 in departmental courses at graduation. Only Economics courses taken at Allegheny on a letter grade basis and only the most recent grade in repeated courses are included in the calculation. All courses required for the major must be taken on a letter grade basis except one of the 100 or 101 courses.

The 200-level elective courses have only introductory micro and/or macroeconomics as a prerequisite, whereas the 400- and 500-level courses generally require 200 and 201. Courses numbered 212-261 are intended to be primarily informational, institutional, historical, or philosophical in nature, while the 400-level courses are more theoreti-
cal, empirical or quantitative in emphasis.
Students considering a major in Economics are advised that 200, 201, 202, 231, and 299 are calculus-based and have Mathematics 157 or 160 as prerequisites.

## Track in Managerial Economics

A field has emerged at the intersection between traditional economics and business. It involves new understandings of how organizations succeed within their competitive environments and the roles managers play in fostering success. To recognize this area of specialization, the department offers a track in Managerial Economics within the major. This program is an especially appropriate preparation for a career in management or related fields (e.g., law, public policy, or entrepreneurship) or for graduate education in these areas. Through case studies, internships, and interactions with practicing managers, students learn how economic theory and quantitative methods can be used to solve managerial and business problems.

To complete this track students must take Economics 100 and 101; Economics 240 as one of the two 200-level elective courses; Economics 160; Economics 200, 201, 202 and 203; and Economics 440 plus one other 400 -level elective, which can be replaced by 360 or 370 . As with the standard major, a seminar (580's series) and Senior Project is required. The Managerial Economics seminar, Economics 588, is recommended.

## International Economics and Business

Those students wishing to pursue a career in International Economics or business should combine the study of a particular country and language with a background in Economics. If students are majoring in Economics and minoring in a language, they should take Economics 251, 256 or 261 as their elective 200 -level course and 450 and/or 452 as their elective 400 -level courses. Students majoring in a language and minoring in Economics should take Economics 251, 256 and/or 261, in addition to 240. In addition, students are encouraged to study abroad and to complete an internship either abroad or with a company engaged in international trade. Students may also select a double major in these two disciplines. For an example of language courses that complement a Managerial Economics track major or Economics minor, see the course of study described in the German section of the Modern \& Classical Languages catalogue section.

## The Minor

The minor field program in Economics requires the successful completion of Economics 100 and 101; 200 or 201; and three other courses offered by the department. Mathematics 157 or 160 or a sufficient mathematics background (requiring permission of the department chair) is prerequisite to 200 and 201. Course sequences suggested for the development of various interests are available from department faculty. All courses except one of 100 or 101 must be taken on a letter grade basis.

## Transfer Credit

During the junior year, students can take advantage of Washington Semester programs in Washington, D.C. Particularly suited to the economics major are: Economic Policy Semester, International Business Semester, and Development and Environmental Semester. It is possible to substitute courses taken under this program or other courses taken in this country or abroad for some of the courses in the major or minor program. However, departmental approval of the proposed work must first be given. Ordinarily the major in Economics cannot include more than three courses taken at other colleges and universities. Several internships are available through the department and one may be taken as an elective in addition to the 12 required courses.

## Graduate Study

Those students intending to pursue graduate study in economics or business should note that these graduate programs usually require a high performance in Economics courses and a thorough understanding of mathematics and quantitative methods. For graduate study in Economics, the recommended minimum is mathematics courses through linear algebra. Proficiency in a second language may also be required. Courses in Political Science may be required for admission to some of the special graduate programs, such as those in city planning and urban affairs.

## Introduction to Microeconomics

## 010 Financial Literacy

An introduction to the economic principles of personal financial management and planning. Topics include the forms and pitfalls of credit; instruments and strategies for saving; and the planning and budgeting of financial goals. Readings, hands-on exercises, and guest
speakers present these topics with academic rigor, while allowing each student to tailor them to his or her own situation. Economics 010 fulfills the distribution requirement in the social science division. It does not count toward a major or minor in Economics.

## 100 Introduction to Microeconomics

A student may take only one course in this category for credit.

## Understanding Prices and Markets

A study of the behavior of individuals, households and firms in markets. In learning how the market system works, we see how prices influence the production and distribution of goods and services and where the system fails.

## The Behavior of Firms in the Modern Economy

An introduction to pricing, production, and investment decisions in firms. Competitive and non-competitive industries are also considered, as well as the role of government in various market settings.

## Trade and Exchange

An exploration of the fundamentals of market forces through an illustration of the buyer-seller relationship. In particular, the objectives of these interacting individuals and the means by which they attain these objectives are described to reveal the potential gains to both the buyer and the seller. Variations in the behavior of producers in different market environments (ranging from competitive to monopolistic) are analyzed. The process through which prices of goods and services are determined is part of all applications.

## Introduction to Environmental Economics

A study of the process through which allocative market inefficiency affects environmental quality. The traditional and modern economicenvironmental policy tools are compared and evaluated.

## Wealth, Poverty and Power in America

An inquiry into the efficiency and fairness of the capitalist economic system in the U.S. The course examines how capitalist markets confer differing degrees of economic power upon different groups in society, and how individuals' lives are affected.

## Introduction to Macroeconomics

## 101 Introduction to Macroeconomics

A student may take only one course in this category for credit.
Understanding Money, Taxes and the Economy
A study of the determination of output, the price level and employment in the United States economy. The impact of government policies designed to achieve full employment and price stability is also explored. This course supplies a framework for interpreting and critically analyzing issues and policies in the "news" that have an economic dimension.

## Controlling the Business Cycle

Policies of the government and the Federal Reserve, which are designed to control inflation, unemployment and the rate of economic growth, are examined in the context of what economists know about the operation of a modern economy.

## The Science of Economic Aggregates

An examination of the measurement, determination, and interrelationships of economic aggregates, such as Gross Domestic Product, Personal Consumption Expenditures, Gross Private Domestic Investment, Government Purchase of Goods and Services, Net Exports, Total Unemployment and the movement of indices of prices. No Economics
prerequisite, but some acquaintance with a mathematical or quantitative approach to analyzing a problem is helpful.

## Economic Growth and Instability

An inquiry into the alternating periods of growth and stagnation in the U.S. economy. Questions to be addressed include the following: Why is it so hard to fully employ America's human resources? How do international economic pressures affect the problem? What role can government play?

## Intermediate Theory and Statistics

## 200 Microeconomic Theory

Study of the theories of consumer and firm behavior, economic efficiency and welfare. Analysis of markets, resources, and general equilibrium is made. Prerequisites: One micro-based introduction to economics course (a macro-based introduction to economics course is also recommended) and Mathematics 157 or 160 . Must be taken on letter grade basis by majors. It is recommended that this course be taken prior to the second semester of the junior year.

## 201 Macroeconomic Theory

A development of theories concerning the determination of output, prices, and employment, the hypotheses upon which these theories are founded, and their implications for policy programs. Prerequisites: One micro-based and one macro-based introduction to economics course and Mathematics 157 or 160 or by permission of the instructor. Must be taken on letter grade basis by majors. It is recommended that this course be taken prior to the second semester of the junior year.

## 202 Economic Statistics

An introduction to the basic components of statistical analysis necessary for applied economic research. Basic concepts of probability, probability distributions, random sampling, point estimation, internal estimation and hypothesis testing are covered. Special attention is focused on the development of multiple regression analysis. Prerequisites: One micro-based and one macro-based introduction to economics and Mathematics 157 or 160 . Must be taken on letter grade basis by majors. It is recommended that this course be taken prior to the second semester of the junior year.

## 203 Economic Statistics II

Fundamental statistical measures and models from Economics 202 are reviewed and more full developed, with applications to economic theory and data. Topics include confidence intervals, hypothesis testing, and the multiple regression model. The use of computers for statistical analysis is an integral part of the course. It is recommended that this course be taken before the end of the junior year.

## Basic Accounting

## 160 Fundamentals of Financial Accounting

Introduction to methods of recording, classifying, and summarizing financial data. Required for the Managerial Economics track.

## 170 Fundamentals of Managerial Accounting

Study of the uses of accounting data to make basic managerial decisions of the firm. Comparisons between managerial decision-making and economic theory of the firm will be made. Prerequisite: Economics 160.

# Philosophical, Institutional and Historical Foundations 

## 212 Marxian Economics

An introduction to Marxian analysis of a capitalistic economy. Topics considered include: Marx's political project and historical method of analyzing society; social classes, exploitation and profits in a highly simplified context; and production, financing, and economic crisis in a complex capitalist system. Prerequisite: One micro-based or one macrobased introduction to economics course.

## 215 History of Economic Thought

The development of economic theory from the Scholastics to Keynes. The emphasis is on the comparison and contrasting of ideas and theories of leading economic thinkers. Evolution of the modern theories of price and income determination will be considered along with the various methodological approaches employed historically in the construction of these theories. Prerequisite: One micro-based and one macro-based introduction to economics course.

## 226 Money and Financial Institutions

A study of the activities of commercial banks and other financial institutions, the structure and operation of the Federal Reserve System, and the role of each in determining the supply of money and credit. The mechanism whereby money affects economic activity and the role of monetary policy in pursuing society's goals is examined. Prerequisite: One macro-based introduction to economics course.

## 231 Environmental Economics and Policy

An examination of the economic factors leading to environmental degradation and the range of policy options available to limit their action. Theories based on externalities and property rights are introduced and command and control, economic incentive, and marketbased approaches to environmental regulation are evaluated and compared. Prerequisites: Mathematics 157 or 160, and one micro-based introduction to economics course or by permission of the instructor.

## 234 Human Resource Management

An examination of organizational policies and practices and their influences on employee behavior. The individual, team, and organizational effects of recruiting, selection, training, development, compensation, and labor relations strategies are analyzed. The influence of employment law and the psychosocial aspects of the workplace are discussed. Prerequisite: Economics 100 or permission of the instructor

## 236 Economics of Gender, Race, and Work

An examination of the economic theories of the labor market as they apply to gender and race issues. Determinants of male-female and blackwhite wage and occupational differences and theories of racial and gender discrimination in the labor market are studied. The role for public policy in reducing discriminatory differentials is analyzed.
Prerequisite: One micro-based or one macro-based introduction to economics course.

## 238 Poverty, Inequality, and Efficiency

An examination of the characteristics of the poor in the United States and around the world. Current measures of poverty and inequality are examined in context of the trends in poverty over time and the causes of poverty and income inequality. The fundamental efficiency and equity concerns of social welfare policy are investigated. The class examines other key topics using real world examples, such as poverty
and race, gender, immigration, education, and international development strategies on extreme poverty. Prerequisite: One micro-based or one macro-based introduction to economics course.

## 240 Introduction to Managerial Economics

An exploration of the roles and responsibilities of the corporation in society, decision-making processes in business and other kinds of organizations, and basic concepts used by managers. Students examine the goals and organizational structures of firms; strategies for surviving in a competitive global economy; corporate ethics; relations with employees, investors, and other stakeholders; the regulatory environment; and the implications of globalization for today's managers. Managerial economics draws upon a variety of sub-disciplines, including theory of the firm, industrial organization, corporate finance, accounting, and international trade. Case studies are used throughout to allow students to apply the theories to real world situations. Prerequisite: One course in introductory microeconomics.

## 242 The Economics of Strategy

An introduction to game theory and its economic applications. The fundamental theories of strategic decision-making are followed by advanced topics. These topics may include the analysis of brinkmanship in politics and business, bidding and auction design, bargaining, and the analysis of non-competitive markets. Prerequisite: One micro-based introduction to economics course.

## 248 Law and Economics

An investigation of the contributions of economic theory to the core areas of the law, e.g., property, contracts, torts, civil procedure, and criminal law and procedure. The course compares economic and noneconomic theories of law and addresses the strengths and limitations of the economic approach. Prerequisite: One micro-based introduction to economics course.

## 250 Issues in Financing Health Care

An examination of the competing interests of the users, providers and financiers of health care. An exploration of reform proposals by these three groups in terms of their economic feasibility is included. Another objective is to frame questions of health care finance so as to better define the appropriate methodologies for their meaningful analysis. Students run through exercises in posing a well-defined question and designing an approach to its study, including data sources and relevant relationships to be included in the analysis. Prerequisites: One microbased introduction to economics course.

## 251 International Economics

A study of international economic relationships in theory and practice. The bases of an international division of labor, international financial arrangements and agencies, balance of payment problems, trade policies of nations, trade and development, regional economic integration, and the multi-national corporation are among the principal topics discussed. Prerequisites: One micro-based and one macro-based introduction to economics course or by permission of the instructor.

## 256 Economic Development

An examination of the problems of the less developed countries in achieving adequate economic development. The role of resources, human and physical; patterns of trade and specialization; international investment and the transfer of technology; the role of international agencies; development strategies; and development planning are some of the principal topics explored. Prerequisites: One micro-based and one macro-based introduction to economics course or by permission of the instructor.

## 261 Comparative Economic Systems

An investigation of scarcity of resources relative to wants. Various market and non-market mechanisms are critically examined. Case studies of countries are followed by a comparison of economic performance. Prerequisites: One micro-based and one macro-based introduction to economics course or by permission of the instructor.

## 265 The Economy of China

An examination of the contemporary economy of China with a focus on the transition since 1978 from a centrally planned to a marketoriented system. Students explore how China has achieved success in economic growth, reflect on whether this growth is sustainable given unique cultural, political, and social backgrounds, and discuss interactions between the United States and China and policy options America faces in coping with China. Specific topics include fiscal and monetary policies, trade and export strategies, rural development, the privatization process, social and cultural background, and the impact of WTO accession on the current and future economy of China.

## 290 Economics of Entrepreneurship I

A study of the economic role and principles of entrepreneurship. Entrepreneurship is a combination of many disciplines including law, business theory, history, psychology, political science, economics, and in many instances, just plain intuition. Topics covered include the development of various business models, the economic impact of antitrust laws, the social and economic implications of "globalization," the psychology of management, and an analysis of some current buzzwords such as the "new economy" and "e-commerce." Students are exposed to the disparate requirements of taking an idea (not necessarily their own) and creating an economically viable enterprise that can sustain itself. Prerequisites: One micro-based or one macro-based introduction to economics course.

## 299 Introduction to Quantitative Methods

Introduction to the various methods and concepts of economic analysis. The use of calculus and linear algebra in developing and solving economic models is the focal point of the course. Concepts and elementary methods of probability are also covered as means of evaluating such models. Prerequisites: One introductory level economics course and Mathematics 157 or 160.

## Intermediate Accounting

## 360 Intermediate Accounting

Theory and procedures used to account for the assets, liabilities, and equity of corporate enterprises. Prerequisite: Economics 170.

## 370 Cost Accounting

Methods and systems used by various enterprises to develop estimates of costs and techniques for controlling costs of operation. Prerequisite: Economics 170.

## 390 Economics of Entrepreneurship II

An exploration of the skills necessary to create a new business or secure funds to expand an existing one. Student teams produce business plans with three major functions: an outline of the business and its financing needs for use in obtaining funding, an exercise in the planning process, and a document used to measure the progress of the enterprise. Topics include forms of organization, sources of competitive advantage, entry and growth strategies, technology and personnel policies, and cash flow analysis. Prerequisites: One micro-based or one macro-based introduction to economics course and Economics 290.

## Applied Economic Theory

## 421 Strategic Environmental Management

Explores how companies seek profit opportunities by reducing costs associated with environmental impacts and by satisfying market demand for ecologically sound products. Economic theories of the firm and theories of sustainable development provide the analytical framework. Various templates for building environmental management systems are reviewed, along with the corporate sector's progress toward sustainable business practices.

## 427 Theory of Finance

Organized around the objective of maximizing the stockholder wealth within a set of corporate risk-return characteristics. Major topics include financial analysis and planning, capital budgeting, evaluation and cost of capital, capital asset pricing, and long-term financing.

## 440 Advanced Managerial Economics

Application of statistical methods and economic theory to managerial decision making. The course covers a range of analytical tools useful in solving problems that arise in managing firms' operations. Particular examples include regression analysis, linear programming, forecasting, time value of money, break-even analysis, statistical quality control, pricing, production, demand and cost functions. Prerequisites: Economics 200, 202, and 240.

## 441 Public Finance

An investigation of the effects of governmental taxation. Topics include income redistribution, public goods, welfare economics, and the efficiency and equity implications of various types of taxation. Prerequisites: Economics 200 and 201.

## 448 Organizations and Contracts

An exploration of the costs of organizing economic activity. Topics include the determination of the scale and scope of the firm, the consequences of separating control from ownership, and the transaction costs of contracting in the marketplace. Theoretical work is followed by case studies of several industries, including aerospace, coal, oil, air traffic control, and automobile. Prerequisites: Economics 200 or permission of the instructor.

## 450 International Banking and Finance

Beginning with the fundamentals of international currency markets, risks incurred in international transactions are defined and analyzed. Various methods of covering for such risks through portfolio adjustments, international trade practices and banking instruments are described. The impact of international lending on the balance sheets of banks, as well as the balance-of-payments of nations, are explored. Some suggested guidelines for lending institutions in the wake of recent lending crises and the potential for their recurrence are also evaluated. Prerequisites: Economics 200 and 201, or permission of the instructor.

## 452 Theory of Trade

An exploration of the macroeconomics of an open economy. Topics include the balance-of-payments, exchange rate markets, and external borrowing for developing countries. The production and consumption possibilities of trading partners are analyzed in a general equilibrium framework. The roles of tariffs, trade quotas, and pegged exchange rates as appropriate policies for the achievement of domestic and international economic goals, as well as means of international economic cooperation, are discussed. Prerequisites: Economics 200 and 201 or by permission of the instructor.

## 460 Economic Forecasting

An examination of statistical techniques used to predict the future performance of key economic variables. Topics include forecasting with the multiple regression model and with time series models, with an emphasis on applications using real-world data. Prerequisites: Economics 200 or 201, and 202 and 203.

## 466 Introduction to Econometrics

Regression analysis, its basic assumptions, and the consequences of the violations of those basic assumptions. Related problems, such as collinearity, identification, autocorrelation, and tests of significance, are included. These techniques are used to measure the relationships between and among selected microeconomic and macroeconomic variables. Applied econometric research with computer usage in areas of student interest is included. Prerequisites: Economics 200 or 201 and 202 and 203 or permission of instructor.

## 470 The Mathematical Approach to Economics

Mathematical development of the basics of modern economic theory. Applications and examples are drawn from the major fields of Economics, such as international, monetary and fiscal theory. Mathematical techniques such as calculus, differential equations, and linear algebra are utilized. Prerequisites: Economics 200 and 201 or permission of instructor.

## 490 Advanced Topics in Economics

A continuation of material taught in Intermediate Theory and specific $400-l e v e l$ field courses. Within the field considered, students become familiar with current problems and developments in theory and/or empirical research. Possible topics include Production Theory, Business Cycle Models, Regional Economics, and Time Series Analysis. Prerequisite: Permission of instructor.

## 491 Special Topics

Special topics, advanced level, offered only once.

## Internships

## 500 Internships

The department offers internships with local, national, and international organizations. Credit hours, timing, and responsibilities are arranged on a case by case basis; for-credit internships will usually be taken Credit/No credit. Students may be required to participate in a seminar during the semester of the internship. Interested students should speak with the department's Managerial Economics Coordinator (332-2385) well in advance of the semester during which they plan to take part in an internship. Internships change from semester to semester; as up-to-date as possible a listing is available through the ACCEL database, which can be accessed at www.allegheny.edu/ academics/Economics/ and www.allegheny.edu/accel/what_intern.html. The department's Coordinator should be consulted about current listings as well. An application is required prior to registering for an internship, and students with insufficient course work or low GPAs may be ineligible.

The following indicate the range of possible internship areas within Economics, although others may be found as well. Also listed are the faculty members likely to act as liaisons in each area:

## Internships in Banking and Finance

Liaison: Professor Onyeiwu
Internships with banks, brokerages, and other financial services companies. Students may be exposed to activities such as credit assessment, financial product sales, and portfolio management. Good
preparation is provided by coursework in corporate finance, money and banking, and accounting.

## Internships in Accounting

Liaison: Professor Sickafuse
Students participate in the work of one or more fields of accounting.
Activities may include financial statement preparation, bookkeeping, tax preparation and financial analysis. Requirements and prerequisites vary depending on the internship.

## Internships in Environmental Management

Liaison: Professor Goldstein
Work with a local company, regulatory agency, or others concerned with how organizations can improve performance while at the same time reducing environmental impacts. Recommended background includes business-related Economics courses (managerial, finance, accounting), and/or courses related to the environment in the Economics or Environmental Science Departments.

## Internships in Regional Development

Liaison: Professor Onyeiwu
Issues of regional growth and development. Topics include downtown revitalization, the effects of local industrial growth and decline, the linkages between sectors of the regional economy, and the competitive effects of entry in all sectors. A written report is required at the end of the internship. Prerequisites: Three courses in Economics and the approval of the liaison.

## Internships in Medical Management

Liaison: Professor Baskan
Students are placed with firms in the health care field, such as in the management offices of a local hospital complex. Interns may deal with medical costs, service quality, health insurance, and other related issues. Coursework in health care financing, and management in general are recommended.

## International Internships in Costa Rica

Liaison: Professor Goldstein
Allegheny College has made special arrangement with partner organizations in Costa Rica, Central America, for summer or semester internships related to the economics of sustainable development. The partners include private companies, nonprofit organizations, and consulting firms. Assistance with travel and living arrangements will be provided, and financial support may be available. Some familiarity with Spanish, or a willingness to undertake intensive language study, is required.

## Seminars

Required of majors in Economics and generally taken in the first semester of the senior year. Students should complete Economics 200, 201, 202, and 203 before taking a seminar.

## 580 Innovation and Technological Change

An exploration of how firms generate and manage innovation and technological change. Managing technological innovation has become a competitive imperative for business practitioners, managers, and strategic planners in the global economy. The basic concepts used in understanding the innovation process are introduced, along with case studies of how leading firms manage their technological systems and portfolios: the organizational, institutional, and managerial structures that are used to compete through technological change.

## 581 Business Cycles

A survey of the historical record of business cycles in the U.S. Methods of
measuring and modeling cyclical activity are discussed. Individual student research is then conducted on selected business cycle models.

## 582 Topics in International Economics

A study of international economic relations. Topics may include trade flows and policies, currency markets, and the impact of trade and globalization on output, employment, and prices in trading countries. Research may also focus on international institutions such as IMF and WTO and their roles in economic development. Choice of seminar paper topic is up to students based on their interests; however, everyone is expected to collaborate and contribute to the research of others in the group. Prerequisites: Economics 200, 201, and 202.

## 583 Financing the American Economy

An examination of the financial sector of the U.S. economy and recent developments in the structure, operation, and regulation of its institutions and markets. Economics 226 is recommended.

## 584 Topics in Industrial Organization

Selected topics in the theory and application of Industrial Organization. Discussion and research may include strategic interaction among firms, levels of advertising and product differentiation, vertical and horizontal integration, antitrust policy, regulation, network economics, and the development of the historical development of the firm. Students choose research topics to complement their senior projects. Prerequisites: Economics 200 and 202.

## 585 Resources, Energy, and the Environment

An examination of natural resource and energy markets. Topics may include market structures, behavior of firms in natural resource industries, emerging patterns of use and of scarcity, environmental degradation associated with the extraction and the use of natural resources, and natural resource policy. Prerequisite: Economics 200.

## 586 Special Topics in Labor Issues

An examination of topics in labor economics, such as human capital, compensating wage differentials, discrimination, unions, mobility, and incentive pay schemes. Material includes an analysis of the wage and employment effects of various public policies.

## 587 Transformation of the Global Economy

Market and non-market economies are critically examined. Case studies of selected countries will be followed by comparative economic performances.

## 588 Topics in Managerial Economics

A capstone seminar for economics majors in the managerial track. A case study format is used to encourage integrated application of standard economic theory and managerial economics fields (like strategic management, finance, accounting, statistics, ethics, and technology management) to the complexities of real strategic management problems. Students choose case-related research paper topics that reflect both significant real world management questions and applicable theoretical frameworks. Case and research reports provide training in project analysis and presentation, both verbal and written, and opportunities to broaden and integrate knowledge of the intellectual, institutional, and historical contexts of the management environment. Prerequisites: Economics 240 and 440.

## 590 Independent Study

Credit: One to four semester hours.

## Senior Project

## 620 Senior Project

A graded course required of Economics majors generally taken in the second semester of the senior year. Students should enroll in a workshop section with the instructor who has agreed to supervise the Senior Project. Entails mainly the writing and defense of the Senior Project. Credit: Four semester hours.
Section 1 Workshop in Macroeconomics and Business Cycles Section 2 Workshop in International Economics

| Section 3 | Workshop in Financial Institutions and Monetary Policy |
| :--- | :--- |
| Section 4 | Workshop in Public Finance |
| Section 5 | Workshop in Resource Markets |
| Section 6 | Workshop in Labor Economics |
| Section 7 | Workshop in Comparative Economic Systems |
| Section 8 | Workshop in Industrial Organization |
| Section 9 | Workshop in Economic History |
| Section 10 | Workshop in Topics in Finance |

Section 4 Workshop in Public Finance
Section 5 Workshop in Resource Markets
Section 6 Workshop in Labor Economics
Section 7 Workshop in Comparative Economic Systems
Workshop in Industrial Organization
Section 10 Workshop in Topics in Finance

## Education

Professors Heuchert, Leech, McCullough, Petasis, Slote, Wilson

Courses in Education are designed to prepare students for a broad range of education-related careers, such as continuing with graduate studies in education at one of our partner institutions which may lead to teacher certification, pursuing elementary or secondary teaching in public or private schools, teaching in programs such as Teach for America, City Year, or the Peace Corps, or choosing careers that have a strong educational component (adult education, management, counseling, training and coaching, health professions, etc.). In addition to traditional teaching careers, there are many other careers that require knowledge of how people learn, including community development, prevention programs, environmental education, social justice work, etc. The course offerings in Education at Allegheny, listed below, therefore span the gamut from those courses that are required by graduate schools to those that are discipline specific. If you are planning to pursue certification as a teacher, please contact Ms. Kirsten Peterson (Director of Pre-Professional Studies) in Reis Hall. To discuss your interest in Education, and for more general academic advising, please contact Professor Juvia P. Heuchert (Education Faculty Advisor) in Carnegie Hall.

## Affiliated Faculty:

Some of the affiliated faculty members involved in education, or education-related courses are: Professors Byrnes, Caputo, Hellwarth and Miller, English; Professors Eatmon and Waggett, Environmental Science; Professors Clark, Knupsky and Saltsman, Psychology; Professor Weisman, Dance and Movement Studies.

## Required Courses for Teacher Preparation

The following courses may be required for admission to graduate studies in Education:

## EDUC 150 Foundations of Special Education

An introduction to teaching children with disabilities and a survey of best practices for working with such individuals. Topics include principles and practices of assessment, instruction, curriculum design and modification, and pupil evaluation. Legal aspects, diversity issues, teamwork, and family involvement are also considered. Field experience is provided. The course satisfies the Foundations of Special Education course requirement for students planning to pursue teaching certification for Elementary Education in the State of Pennsylvania.

## EDUC 160 Teaching English Language Learners

A study of the challenges of English Language Learners (ELLs) and a survey of best practices for teaching such individuals. Topics include
legal responsibilities, advocacy for ELLs, socio-cultural considerations of ELL populations, assessment of programs, and instructional adaptation. Emphasis is placed on the instruction of children in an educational setting, and field experience is provided. The course satisfies the Teaching English Language course requirement for students planning to pursue teaching certification for Elementary Education in the State of Pennsylvania.

## EDUC 220 Social Foundations of Education

A seminar examining theoretical frameworks of schooling. Students study the different social, physical, and curricular structures that make up educational institutions and how they inform aspects of teaching and learning. The Action Research methodology (the collaborative study of one's own practice) is used in our exploration. This course includes a Service-Learning component and fulfills a requirement for the secondary Master of Arts in Teaching program at the University of Pittsburgh.

## PSYCH 106 Educational Psychology

An introduction to the psychological theories that have influenced educational thought and shaped educational practice in American schools since the turn of the 20th century. Topics include Piaget's theory of cognitive development, Vygotsky's socio-cultural theory, behaviorism, information processing theory, constructivism, motivation and learning theory. Case studies and re-enactions of classroom scenarios are used to explore how each theory is applied in educational settings and to brainstorm solutions to educational problems.

## MATH 135 Elementary School Mathematics

An examination from a college perspective of selected mathematical topics related to the elementary school curriculum, with an emphasis on the development of problem-solving strategies. Mathematical concepts and their connections to the real world are studied. This course is intended for students seeking certification for elementary school teaching. Prerequisite: Permission of the instructor.

## ENGL 350 Children's Literature

A study of children's literature, with focus on its cultural and theoretical underpinnings. Among the concerns addressed may be the definitions of "childhood" and "adolescence" the genre helps construct or undermine; the impact children's literature can have on notions of gendered, ethnic class, \& national identity; the formal variations of archetypal tales; the genre's role in author's careers. Specific topics may include fairy tales (their cultural history and contemporary trans- formations); multicultural children's literature; the contemporary young adult novel; and children's verse. Prerequisites: English 200 or FSENG 201 or permission of the instructor.

## Affiliated Courses

The following are some additional courses offered at Allegheny that can be beneficial to education, or education-related careers (please see full descriptions under the specific departments and programs):

ENGL 385: Cultural History of the English Language
ENGL 501: READ internship
ENVSC 250: Environmental Education
ENVSC 415: Environmental Health
ENVSC 425: Global Health Transitions
PSYCH 160: Life Span Developmental Psychology
PSYCH 164: Cognitive Psychology,
PSYCH 370: Tests and Measurement
PSYCH 380: Behavior Modification
PSYCH 445: Psychology of Reading
PSYCH 461: Bilingualism and 2nd Language Acquisition

In addition, some sections of FS101 and FS102 focus on topics related to education; various departments offer tutoring and student-teaching opportunities; and a number of upper-level courses and internships in Psychology relate to teaching and learning.

## English

Professors Hellwarth, C. Bakken, K. Bakken, Bulman, Caballero, Caputo, Cook, D’Amico, Ferrence, A. Lockridge, Michaels, Miller, Nesset, Paul, Quinn, B. Slote, S. Slote, Wells

Allegheny's English Department offers a wide range of courses in literature and in creative and expository writing. The study of literature provides our students with a variety of interpretive methods and perspectives, increases their awareness of the range of creative expression, and introduces them to cultural values that deepen and challenge their own. Our writing classes seek to improve students' ability to express their own best ideas in a variety of forms. By mastering modes of analytical reading, critical explication, coherent argument, and creative thinking, students acquire those skills required to succeed in many professional fields. By studying a variety of literatures in English, they learn to recognize the ideas and perspectives that shape their own and earlier times; and by cultivating a sensitivity to and healthy skepticism about the subtlety and power of language, they become educated in the fullest sense.

## The Major

English majors are required to have a GPA of at least 2.0 in English at graduation. All English courses taken at Allegheny on a letter basis are included in the calculation, with the exception of repeated courses, for which only the most recent grade counts. At least 10 courses, including the Junior Seminar and Senior Project, must be taken on the letter grade basis; additional courses may be taken Credit/No Credit, though the department recommends that the number of such courses be kept to a minimum.

A major in English leads to the degree of Bachelor of Arts and requires the following:
Requirements for the English Major:

1. $40-48$ semester credit hours in English.
2. English 200 or FS ENG 201. English 200 is a prerequisite for all literature courses above the 200 level and for creative writing courses at all levels.
3. English 201, plus at least two of the following: 202, 203, 204. One course from the 201-204 group is a prerequisite for all literature courses at the 400-level or above.
4. At least one English course at the $300-\mathrm{level}$ and one at the 400level.
5. At least two courses in literature after 1800 and at least one (in addition to English 201) in literature prior to 1800. Courses that satisfy the pre-1800 requirement include English 212, 311, 385, $415,425,426$, and 435 . Other appropriate topics, courses or seminars may satisfy the requirement, subject to approval by the advisor and the department chair.
6. A Junior Seminar.
7. A Senior Project.

## Requirements for the English Major: Journalism Emphasis

1. All of the standard requirements for the English major as indicated above, plus the following (courses may double count when appropriate):
2. English 207.
3. English 205, 305 or 403.
4. English 402.
5. At least four courses of the following courses: English 210, Communication Arts 120, 255, 265, 290, 365, 375, 465. Other Communication Arts courses or appropriate courses in other departments may be substituted for one or more of the above, with permission of the English department chair.
6. At least four semesters of contributing to The Campus. The student's submissions to The Campus must be collected in a portfolio to be reviewed by the English department chair or a designated member of the department.
7. A Senior Project in Journalism: English 622.

It is recommended that students pursuing the journalism track also participate in appropriate internships, to be identified in consultation with the student's faculty advisor.
Requirements for the English Major: Creative Writing Emphasis

1. All of the standard requirements of the English major as indicated above, plus the following (courses may double count when appropriate):
2. Two of the following: English 205, 206, 210.
3. Two of the following: English 301, 302, 303, 305.
4. At least one of the following courses: English 400, 401, or 403.
5. A Senior Project in creative writing.

Students will seek approval for either an original creative project or a critical study of a significant aspect of craft, genre, prosody, poetics, etc. (to be identified in consultation with members of the English department).

## The Minor in English

Students who wish to fulfill the minor field program in English must successfully complete the following:

1. English 200 or FS ENG 201.
2. Any two of the 200 -level studies courses: Studies in Early British Literature, Studies in Later British Literature, Studies in American Literature, Emerging Traditions in U.S. Literature.
3. Three other electives, one of which must be at the 300 -level or above, and another of which must be either a 400 -level course or a junior seminar.

## The Minor in Writing

The Department of English also offers a minor in writing that requires the successful completion of the following:

1. English 200 or FS ENG 201.
2. Any two of the following courses: Writing Fiction (205), Writing Poetry (206), News Writing (207), Writing Nonfiction (210).
3. Any one of the following courses: Advanced Fiction Writing (400), Advanced Poetry Writing (401), Topics in Journalism (402), Advanced Nonfiction Writing Workshop (403).
4. Any two electives in English, one of which may be in writing. Note: Students who major in English cannot also minor in writing.

All six courses ( 24 semester credit hours) presented for the minor must be taken on the letter grade basis. Under exceptional circumstances, one course taken Credit/No Credit may be presented for the minor with permission of the chair of the department. Typically, this exception is made when a student has taken English 200 C/NC before declaring the English minor.

## The Minor in Environmental Writing

The Department of English also offers a minor in environmental writing that requires the successful completion of the following courses (28 semester credit hours):

1. English 200 or FS ENG 201.
2. Literature about the Environment (English 209).
3. Writing Nonfiction (English 210).
4. Any one of the following courses: Writing Fiction (205), Writing Poetry (206), or News Writing (207).
5. Advanced Nonfiction Writing Workshop (403).
6. Two corequisite courses. Students minoring in Environmental Writing must also take at least two courses outside the English department that deepen their understanding of the natural environment or of environmental issues. These courses can be among those courses taken for a student's graduation major or for another minor (that is, they can be "double counted"). We strongly recommend that one of these courses be Environmental Science 110: Introduction to Environmental Science. Other courses to choose from include the following:

Art 156 - Introduction to Studio Art: Art and the Environment
Bio 040 - Plants and Society
Bio 050 - Basic Ecology
Bio 077 - Principles of Biology
Bio 078 - Biology of Behavior
Bio 220 - Organismal Physiology and Ecology
Bio 330 - Ecology
Bio 335 - Conservation Biology
Bio 346 - Wetlands
Econ 231 - Environmental Economics and Policy
Environmental Science - any course
Geology - any course
Poli Sci 323 - Environmental Policymaking in the United States
Poli Sci 324 - Environmental Protection in the United States
Poli Sci 460 - Global Environmental Politics
Other appropriate courses may be used as corequisites, subject to the approval of the Chair of the English Department, in consultation with members of the other relevant department.

## 200 Reading Literature

A course in the close reading of literary texts. Through the study of a limited number of works of fiction, poetry, and drama, students develop their ability to read carefully and to understand the relations between literary texts and a range of historical and/or literary contexts. The
course also introduces students to some of the terms, critical approaches, and research methodologies necessary for further literary study.

## 201 Studies in Early British Literature

A course that will focus on British literary history written prior to 1800 . Emphasis will be on the relations among literary works produced during the same historical period, on the interactions between literature and culture during a historical period, and on the changes and developments that establish the boundaries between one period in literary history and another. Sample topics: Self and Society in the Middle Ages, Early Modern Travel Narratives, From Renaissance to Restoration Comedy.

## 202 Studies in Later British Literature

A course that will focus on British literary history after 1800. Emphasis will be on the relations among literary works produced during the same historical period, on the interactions between literature and culture during a historical period, and on the changes and developments that establish the boundaries between one period in literary history and another. Sample topics: From Romantic to Victorian Literature, From Victorian Literature to Modernism, British Literature of the Two World Wars.

## 203 Studies in American Literature

A course that will focus on American literary history. Emphasis will be on the relations among literary works produced during the same historical period, on the interactions between literature and culture during a historical period, and on the changes and developments that establish the boundaries between one period in literary history and another. Sample topics: American Literature and War, Sentimentalism and Realism, The Puritan Tradition.

## 204 Emerging Traditions in U.S. Literature

An introduction to literatures in English that exist alongside the dominant Euro-US tradition. African American, Asian American, Latino/a American, and Native American literatures may be taught alone or in conjunction with one another. Possible course themes include: African diasporic women's writing, national narratives and counter-narratives, and literature of exile.

## 205 Writing Fiction

Study of the craft of fiction through the critical examination of both professional and student work. Emphasis is on the creative process through the exploration of plot structure, language, voice, setting and characterization. Prerequisite: English 200 or FS ENG 201.

## 206 Writing Poetry

Study of the craft of poetry through the reading and writing of poems and through critical examination of both professional and student work. Emphasis is on the creative process through the exploration of structure, language, and quality of observation. Prerequisite: English 200 or FS ENG 201.

## 207 News Writing

A beginning level journalism class, with emphasis on the writing and gathering of news in an objective manner. Work often simulates the intense life of the news reporter-writing under short deadlines with extensive research requirements. Study also stresses fundamental writing skills, such as developing concise language and learning to copy-edit and re-write.

## 209 Literature About the Environment

A comparative study of the environmental imagination as expressed in literature. Of primary concern are questions of style, narrative, and representation in light of larger social, ethical, and political concerns about the natural world. In contrast to environmental philosophy or policy, the emphasis in this course is on the form of expression as well as the ideas presented. Authors studied may include Ralph Waldo Emerson, Henry Thoreau, nnie Dillard, Aldo Leopold, and Peter

Matthiessen. Required for all students who pursue the Environmental Writing Track. Prerequisite: English 200 or FS ENG 201.

## 210 Writing Nonfiction

A study of the craft of creative nonfiction through reading and writing of creative nonfiction and through critical examination of both professional and student work. Areas within creative nonfiction that may be considered include: the personal essay, environmental writing, travel writing, food writing, and memoir. Emphasis is on the creative process through the exploration of structure, language, narrative devices, and quality of observation. Prerequisites: English 200 or FS ENG 201.

## 211 Women and Literature

An introduction to literature by women and/or representing women's experience. This course also explores feminist approaches to literature and provides critical and historical perspective on the relationships between women and literature. Specific genres and time periods studied may vary. Authors considered may include Amelia Lanyer, Aphra Behn, Jane Austen, the Brontes, Emily Dickinson, Virginia Woolf and Toni Morrison. Prerequisite: English 200 or FS ENG 201, or WS 100, or permission of the instructor.

## 212 Shakespeare

A study of selected comedies, histories, and tragedies, with some emphasis on their cultural context and performance possibilities. Prerequisite: English 200 or FS ENG 201.

## 301 Forms of Fiction

A course devoted to the close study of some form or forms of prose fiction. Specific topics vary and may include the following: The Short Story, Arthurian Romance, The Novel of Development, Realist Fiction. Prerequisite: English 200 or FS ENG 201.

## 302 Forms of Poetry

A course devoted to the close study of some form or forms of poetry. Specific topics vary and may include the following: The Epic Tradition, Forms of the Lyric, Confessional Poetry. Prerequisite: English 200 or FS ENG 201.

## 303 Forms of Drama

A course devoted to the close study of some form or forms of drama. Specific topics vary and may include the following: Early English Theatre, Modern Drama, Medieval Drama, Forms of Tragedy. Prerequisite: English 200 or FS ENG 201.

## 304 Forms of the Cinema

A study of the historical development and aesthetic concerns of the modern cinema. Emphasis on the role of the director, the creation of distinctive genres, and the influence of various approaches to film criticism; coverage includes American and foreign films. Prerequisite: English 200 or FS ENG 201.

## 305 Forms of Nonfiction

A course devoted to the close study of some form or forms of literary nonfiction. Specific topics vary and may include the following: Autobiography, Travel Literature, Creative Nonfiction, Traditions of the Essay. Prerequisite: English 200 or FS ENG 201.

## 311 Chaucer

A study of the poetry of Geoffrey Chaucer, including The Canterbury Tales and possibly including Troilus and Criseyde and shorter works. The course examines Chaucer's responses to the literary, social, and religious conventions of the 14th century. Recommended: English 201. Prerequisite: English 200 or FS ENG 201.

## 313 Study in a Major Author

A course devoted exclusively to the study of works by a single major British, American, or other Anglophone author. The focus of the course
will vary with each offering; John Milton, William Faulkner, Toni Morrison, and Nadine Gordimer are representative of the kind of figure who might be selected for study. Prerequisite: English 200 or FS ENG 201.

## 321 Advanced Topics in Emerging Literatures

A concentrated exploration of literature and literary theory in English or translation that exist alongside the dominant Euro-US tradition. Students examine emerging literary, cultural, and theoretical traditions through an in-depth study of Asian American, Latino/a American, and/ or Native American literatures. Examples of topics include Caribbean literature, border literatures, and Chicano/a literatures. Prerequisite: English 200 or FS ENG 201.

## 322 Topics in African American Literature

A concentrated exploration of a particular period, genre, or theme in the African American literary tradition. Topics range from Slave Narrative to the Harlem Renaissance to Black Arts Poetry and Drama. Prerequisite: English 200, FS ENG 201 or permission of the instructor.

## 323 Global Literature

An exploration of literature beyond England and the United States, much of it in translation. Of primary concern are questions of geography, politics, and history. We may focus on one particular region or country or employ a theme-based approach to compare several traditions. Topics may include the literature of exile, South African fiction, Eastern European poetry, Magical Realism, Caribbean literature, the problem of censorship, tradition and innovation in African drama, and contemporary Indian literature. Prerequisite: English 200.

## 350 Children's Literature

A study of children's literature, with focus on its cultural and theoretical underpinnings. Among the concerns addressed may be
the definitions of "childhood" and "adolescence" the genre helps construct or undermine; the impact children's literature can have on notions of gendered, ethnic, class, and national identity; the formal variations of archetypal tales; the genre's role in authors' careers. Specific topics may include fairy tales (their cultural history and contemporary transformations); multicultural children's literature; the contemporary young adult novel; and children's verse. Prerequisite:
English 200 or FS ENG 201 or permission of the instructor.

## 385 Cultural History of the English Language

An inquiry into the nature of the English language, its origins and evolution with an emphasis on the social, political, and cultural dynamics involved in language change. Prerequisite: English 200 or FS ENG 201.

## 390 Literary Theory

An examination of 20th-century theories of literature and criticism organized around essays from the fields of literary criticism, critical theory, and cultural studies. Critical "schools" studied might include Structuralism, Post-Structuralism, Reader-Response Criticism, New Historicism, Marxist Criticism, and Feminist Criticism. Prerequisites: English 200 or FS ENG 201 and at least three additional English courses or permission of the instructor.

## 391 Politics and Literature

(also listed as Political Science 391)
A team-taught course that examines the intersection of politics and literature in a given situation. While the specific topic may change from year to year, the course seeks to transcend the disciplinary borders between Political Science and English by exploring the vital connections between "system" and "story" at a given historical moment. The course may be taken for credit in either Political Science or English. Prerequisite: Permission of the instructors.

## 400 Advanced Fiction Writing Workshop

An advanced study of the craft of fiction through the reading and writing of short stories and/or novellas and novels. Attention focuses on the writing, re-writing and criticism of longer works. Prerequisites: English 200 or FS ENG 201, English 205, a writing sample, and permission of the instructor.

## 401 Advanced Poetry Writing Workshop

An advanced study of the craft of poetry through writing, reading and responding to poems. Emphasis is on prosody, on developing voice and subject through an examination of poetic devices, and on creating thematic unity both in individual poems and in the group of poems each student is expected to produce by the semester's end. Prerequisites: English 200 or FS ENG 201, English 206, a writing sample, and permission of the instructor.

## 402 Topics in Journalism

An advanced study of particular issues in journalism such as investigative reporting, editorial writing, journalistic ethics, and new journalism. Topics vary from year to year, but the course may be taken only once for credit. Prerequisites: English 200 or FS ENG 201, English 207, and permission of the instructor.

## 403 Advanced Nonfiction Writing Workshop

An advanced, intensive writing workshop for students with a genuine interest in crafting prose. Emphasis is placed on the crucial elements of creative nonfiction-storytelling, description, dialogue, voice, report-age-as well as the opportunity to do extended original work in essay writing. Workshop sessions engage participants as both writers and critical readers. Required for all students who pursue the Environmental Writing Track. Prerequistes: Permission of the instructor.

## 415 Topics in Literature of the Middle Ages

A study of the literature of the Middle Ages as it shapes and responds to literary, social, and religious traditions. Topics vary from year to year and may include Arthurian romance, the literature of courtly love, religious and mystical literature, and medieval drama. Prerequisites: English 200 or FS ENG 201, one of English 201-204 (English 201 recommended).

## 425 Topics in Renaissance Literature

A study of literature in the context of a rapidly changing Renaissance society. Focus may be on an author (Spenser, Jonson, Milton), a school (Metaphysical poets, Jacobean dramatists), a genre (epic, love lyric, prose), or some larger topic such as literature as an instrument of political power. Prerequisites: English 200 or FS ENG 201, one of English 201-204.

## 426 Topics in Shakespeare

An exploration of particular questions raised by Shakespeare's works. Such questions may include Shakespeare's interpretation of history, the genre of the "problem" comedies, or the impact of feminist, psychoanalytic, and political criticism on the interpretation of the plays. Prerequisites: English 200 or FS ENG 201, one of English 201-204.

## 435 Topics in Restoration and 18th-Century Literature

An exploration of the literature of an age often praised as "The Enlightenment" but condemned as morally corrupt. Topics may include Restoration comedy (Congreve, Wycherley), Augustan satire (Pope, Swift), the revival of classicism (Johnson, Burke), the rise of the novel (Defoe, Richardson, Fielding), and the advent of print culture. Prerequisites: English 200 or FS ENG 201, one of English 201-204.

## 445 Topics in Romanticism

A study of the literature, context, and influence of British Romanticism. Topics studied may include the re-definition of the artist, comparative Romanticism, the importance of landscape, and the rise of the Gothic;
authors studied may include Blake, Radcliffe, Wordsworth, Keats and Mary Shelley. Prerequisites: English 200 or FS ENG 201, one of English 201-204.

## 455 Topics in Victorian Literature

An exploration of a significant topic that characterizes the literature of Victorian Britain (1837-1901). The focus may be on a major theme such as power and gender, a figure such as that of the outcast, or a controversial debate such as that which occurred between science and religion. Authors discussed may include Tennyson, Christina Rossetti, Dickens, the Brontës and Hardy. Prerequisites: English 200 or FS ENG 201, one of English 201-204.

## 460 Topics in Postcolonial Literatures

A study of any of the literatures that emerge in postcolonial sites and that address issues of colonial literary, linguistic, and cultural legacies as well as the challenges of literary self-determination and re-invention. Examples might be the literature of India after 1948 or the literature of various African nations after 1960. Contem-porary theories about the process of decolonization are also explored. Prerequisites: English 200 or FS ENG 201, one of English 201-204.

## 465 Topics in 19th-Century American Literature

A study of American literature as it reflects and participates in a particular period of the 19th century. Topics vary from year to year and may include the American Gothic, American Romanticism, the Literature of Reconstruction and Post-Reconstruction, the Rise of Realism and Regional Fiction. Prerequisites: English 200 or FS ENG 201, one of English 201-204.

## 470 Topics in 20th-Century American Literature

A study of American literature as it reflects and participates in a particular period of the 20th century. Topics vary from year to year and may include Literary Naturalism, the Southern Renaissance, the Beat Generation and Fiction of the Vietnam War era. Prerequisites: English 200 or FS ENG 201 and one of English 201-204.

## 475 Topics in Modernism and Postmodernism

A study of the literature and culture of the modernist and/or postmodernist periods. Topics are likely to span a variety of genres and cultures and may venture into media other than literature, such as painting and film. Authors studied typically include Mann, Eliot, Yeats, Stein, Joyce, Woolf, Gide, Barth, and Pynchon. Prerequisites: English 200 or FS ENG 201, and one of English 201-204.

## 485 Topics in Narrative Film

An extensive examination of a particular aspect of film art such as a national cinema, a movie genre, an individual director, or a specific critical methodology. Prerequisites: English 200 or FS ENG 201, English 304 or permission of the instructor.

## Undergraduate Internships

500 Internship with The Meadville Tribune
Liaison: Ms. Quinn
Students are trained as regular beginning reporters, working on either day or night shift. Initially the student reporter will probably write obituaries and other announcements; later the intern covers assignments with members of the regular reporting staff. If reliability justifies it, the student reporter may be asked to cover a special assignment and write feature stories. The intern may also do copy editing and proofreading, as well as help with layout, in order to gain experience in the production areas of newspaper work. There can be two interns each semester, one in standard reporting and one in sports writing. Prerequisites: English 200 or FS ENG 201 and 207, one or two semesters minimum of writing for The Campus, and approval of the liaison person and the managing editor of The Meadville Tribune.

## 501 READ Internship

Liaison: Ms. Heuchert
A service-learning internship conducted jointly by the English
Department and the Crawford County Literary Council ("READ"). Following tutor training, students spend at least 40 hours in service to adult learners through the READ Program in Meadville in supervised situations. Students submit weekly descriptions of tutoring activities and maintain a monthly log of hours served. Students also fulfill a series of academic requirements that include reading and commenting on a series of texts about literacy and completing academic writing assignments that explore literacy issues in more detail. This course must be taken on a letter-grade basis and meets weekly for one hour; tutoring times are arranged on an individual basis. Students are responsible for making travel arrangements to the tutoring site.

## 502 Internship in Professional Writing

An internship with a local non-profit organization designed to give students experience writing professional documents for a variety of audiences. Students write brochures, grant proposals, memoranda, instructions, and/or websites, depending on the particular needs of the organization. In the past, students have been placed at the Center for Family Services, the Mind/Body Wellness Center, and Women's Services; placement at other non-profits may be possible. Credit: Two or four semester hours. Prerequisite: English 208.

## 550-556 Junior Seminar in Literature

Individual research projects and frequent discussions in a small class setting. The seminar is required for English majors in the junior year. Majors may take more than one seminar, and seminars are open to nonmajors with permission of instructor. Topics for 2006-2007 are given below. Prerequisites: English 200 or FS ENG 201, one of English 201-204.

550 Civil War in America Culture and Imagination
551 The Muse of History
552 John Milton: Poetry, Prose and Politics
553 Jewish American Fiction

## 590 Independent Study

To be arranged.

## 620 Senior Project

A one-semester, independently researched project in literary studies written under the supervision of an English department faculty member.

## 622 Senior Project in Journalism

A one-semester project either about journalism or consisting of journalistic writing, written under the supervision of an English department faculty member.

## 624 Senior Project in Creative Writing

A one-semester project in creative writing (poetry, fiction, or creative non-fiction), written under the supervision of an English department faculty member.

## Sophomore Seminar

## FS ENG 201 Communication in a Discipline

## Writing and Speaking About Literature

An introduction to writing, speaking, and research in the discipline of English. Students apply a variety of critical approaches to a small number of literary texts, develop research and interpretive skills, and present their work in oral and written forms.

## Environmental Science

Professors Bensel, Bowden, Darby, Eatmon, Maniates, Neff, Pallant, J. Palmer, Waggett-Utz, Whitney, Wilson, Wissinger

Environmental Science is the study of interrelationships between human activities and the environment. Environmental Science is an unusual academic discipline in that it requires scientific knowledge about the natural world, as well as an understanding about ways in which humans interact with the natural world. We examine effects of human actions on the environment, and the means by which policies, regulations, and decisions influence human actions. We also examine human behavioral, cultural, and sociological interactions that affect the environment. Thus, the department is truly interdisciplinary and exemplifies the liberal arts approach to education. Courses offered within the Department of Environmental Science integrate various disciplines, and thus reflect the interdisciplinary nature of environmental concerns and problem-solving. Departmental courses examine ecological systems, interactions of human perceptions, ideas, and technologies, and social, political, economic, and technological methods to preserve environmental quality. Faculty in the department believe that environmental specialists in the natural sciences must have a broad understanding of the social aspects of environmental problems. Likewise, a professional whose expertise is in environmental policy, management, or communications must also have a strong understanding of the scientific basis of decision-making in those fields.

Two majors are offered in the department: Environmental Science and Environmental Studies. A set of core courses are required of all majors that together lay necessary foundations in the social and natural sciences, while providing opportunities for interdisciplinary analysis of environmental issues. In addition to these core courses, students must complete courses in a defined concentration developed in consultation with a faculty member from the department.

In the Environmental Science major, core courses include biology, chemistry, geology and mathematics. Upper-level courses synthesize and integrate basic sciences and apply that knowledge to analysis and solutions of current environmental problems. Upper-level courses are rich in lab and field experiences. Environmental Science majors often pursue graduate studies and careers in field, laboratory or applied science settings. Students typically work and study at research institutions, regulatory agencies, or private consulting firms that highlight environmental quality. The Environmental Science major prepares students to work in terrestrial, marine, or aquatic arenas, land use assessment, agriculture, forestry, resource management, or pollution assessment and control.

Environmental Studies majors examine the concept of sustainability, integrating environmental, economic, and social concerns, and exploring both desirable future conditions and transitions needed to reach them. The basic tenet of the Environmental Studies major is that progress toward a sustainable future depends on the creative application of interdisciplinary thinking, spanning disciplines across the traditional college divisions, while striving for both depth and breadth. We seek to inspire creativity and combine passion with critical thinking skills in students who one day will be the citizens working to convert the world to more sustainable systems. For the purposes of fulfilling college wide liberal studies requirements, the Environmental Studies major is counted in the division in which the majority of courses in the concentration reside: the social sciences or humanities.

The minimum GPA for a student to graduate with a major in Environmental Science or Environmental Studies is 2.0. All courses required for the Environmental Science and Environmental Studies majors (including Allegheny off-campus courses for which a letter grade is received) are counted in the calculation whether they are Environmental Science courses or courses listed outside the department. Courses required by the major are expected to be taken on a letter-grade basis. Exceptions must be approved by an Environmental Science department advisor.

Some Environmental Science courses may be used by non-majors to satisfy college distribution requirements. Courses carrying Natural Science credit include: ES 110, ES 210, ES 215, ES 315, ES 320, ES 330, ES 335, ES 342, ES 343, ES 344, ES 346, and ES 415. Courses carrying Social Science credit include ES 130, ES 250, ES 280, ES 340, ES 347, ES 350, ES 352, ES 360, ES 380, ES 420, ES 425, ES 430, ES 431, and ES 580-589. Internships may carry Natural Science or Social Science credit-see an Environmental Science faculty member for assistance.

## Majors in the Department of Environmental Science

The department offers two majors, Environmental Science and Environmental Studies. A set of core courses ( 24 credits) for each major includes: Environmental Science 110; Environmental Science 210; Environmental Science FS ENV 201; One of Environmental Science 580-589; Environmental Science 600, and Environmental Science 610.

## Career Planning

Both Environmental Science and Environmental Studies majors must develop areas of concentration related to their major areas of interest. Examples of concentrations include Environmental Philosophy, Environmental History, Communications and the Environment, Ecological Economics, Environmental Law, Environmental Policy, International Sustainable Development, Culture and the Environment, Art and the Environment, Environmental Education, Community Development, Conservation Biology, Terrestrial Ecosystems, Aquatic Ecosystems, Landscape Ecology, Environmental Toxicology, Environmental Geology, Environmental Chemistry. All students are advised to consult an Environmental Science Department faculty member early in their careers for course planning.

## Environmental Science (40 additional credits)

Select one (1) from this list (4 credits):
ES 250 Environmental Education
ES 340 World Geography
ES 347 Environmental Regulation and the State
ES 350 Ecological Economics
ES 352 Environmental Justice
ES $380 \quad$ Climate and Energy Policy
ES 420 Understanding Third World Environmental Problems
ES $425 \quad$ Global Health Transitions
Hist 318 Environmental Thought in Europe
Eng 209 Writing about Culture and Place
RE/ES 360 Religion and Ecology
Select one (1) from this list (4 credits):
Math 157 or 160 Calculus I
Math 158 or 170 Calculus II
Select five (5) foundation courses from this list (20 credits):
Physics $101 \quad$ Fundamentals of Physics I
Physics 102 Fundamentals of Physics II
Bio $220 \quad$ Organismal Physiology and Ecology
Bio 221 Genetics Development and Evolution
FS Bio 201 Investigative Approaches in Biology
Chem $110 \quad$ Principles of Chemistry I
Chem 112 Principles of Chemistry II
ES 215 Introduction to Environmental Mapping
Geo 108 or 110 Environmental Geology or Physical Geology
FS Geo 201 Field Geology
Select three (3) advanced courses from this list (12 credits):
ES 315 Advanced Environmental Mapping
ES $320 \quad$ Forest Ecosystems and Management
ES $330 \quad$ Climate Change: Past and Future
ES 335 Conservation Biology
ES 342 Toxicology
ES $343 \quad$ Coastal Science and Management

ES $344 \quad$ Stream Ecology
ES 346 Wetlands
ES 415
Geo 310
Environmental Health
Process Geomorphology
Geo $400 \quad$ Hydrogeology
Geo 430 Geochemistry
Bio $310 \quad$ Microbiology
Bio 330 Ecology
Bio 385 Biostatistics
Bio $360 \quad$ Plant Physiology
Bio $580 \quad$ The following Biology junior seminars are acceptable: Stream Ecology, Animal Behavior, Limnology, Environmental Microbiology
Chem 222 Inorganic Chemistry
Chem $231 \quad$ Organic Chemistry 1
The five foundation and three advanced courses must revolve around a central theme. Courses must be selected in consultation with a faculty member in Environmental Science by the end of the sophomore year. For most students, this selection process will occur during enrollment in ES 210. The department expects that students may change course selection during their tenure at Allegheny; the student's advisor must approve all schedule changes.

## Environmental Studies (40 additional credits)

Select two (2) from this list (8 total credits):
Math 110 Elementary Mathematical Modeling
Math 157 or 160 Calculus I
Math 158 or 170 Calculus II
Bio $040 \quad$ Plants and Society
Bio 045 Biology of Algae
Bio 050 Basic Ecology
Bio $060 \quad$ Cancer: Causes and Consequences
Bio 071 Biotechnology
Bio $077 \quad$ Principles of Biology
Bio 078 Biology of Behavior
Bio 081 Insects and Humans
Bio $220 \quad$ Organismal Physiology and Ecology
Bio 221 Genetics Development and Evolution
FS Bio 201 Investigative Approaches in Biology
Chem $110 \quad$ Principles of Chemistry I
Chem 112 Principles of Chemistry II
Geo 108 or 110 Environmental Geology or Physical Geology
FS Geo 201 Field Geology
ES 215 Introduction to Environmental Mapping
ES $320 \quad$ Forest Ecosystems and Management
ES 325 Coastal Science and Management
ES 342 Toxicology
Physics 065 Introduction to Physics
Physics $101 \quad$ Fundamentals of Physics I
Physics 102 Fundamentals of Physics II
Select eight (8) additional courses ( 32 total credits), including at least two (2) from this list:
ES 340 World Geography
ES 347 Environmental Protection and Institutional Change
ES 350 Ecological Economics
ES 352 Environmental Justice
ES $380 \quad$ Climate and Energy Policy
ES 420 Understanding Third World Environmental Problems

At least six (6) of the eight courses must be upper-level (300 or 400). These eight courses must be relevant to Environmental Studies and must revolve around a central theme. Courses may include those from the ES department or from other departments. Courses must be selected in consultation with a faculty member in Environmental Science by the end of the sophomore year. For most students, this selection process will occur during enrollment in ES 210. The department expects that students may change course selection during their tenure at Allegheny; the student's advisor must approve all schedule changes.

## Off-Campus Courses and Internships

The department encourages off-campus study and internship experiences for both Environmental Studies and Environmental Science majors. Courses taken at the Duke Marine Biological Laboratory, the Arava Institute in Israel, the School for Field Studies in Costa Rica, the Ecosystems Center in Woods Hole, or any other departmentally approved off-campus study location, may substitute for some or all of the required courses for either major. In addition, internships may also be acceptable substitutes for these courses. Substitutions must be approved in advance by your Department of Environmental Science advisor.

## Internships

The department offers credit-bearing internships with local organizations, described below under the course numbers 518-528. Interested students should speak with the department's Internship Coordinator well in advance of the semester they plan to take part in an internship. Internships change from semester to semester and new ones may be available that are not yet listed in the Catalogue. An application is required prior to registering for an internship and students with insufficient coursework or low GPAs may be ineligible.

## Off-Campus Study

Allegheny College is affiliated with several off-campus study programs that are relevant to either Environmental Science or Environmental Studies majors. Students interested in studying off-campus should speak with their advisors about the possibility of using off-campus courses in lieu of on-campus major requirements. Each program has different eligibility requirements. More complete descriptions of the off-campus programs and requirements may be obtained from the Environmental Science faculty or from the Director of International Programs and Services, but brief descriptions are provided below.
Arava Institute for Environmental Studies, Kibbutz Ketura, Israel
A semester or year-long program in sustainable development and peace, in cooperation with students from the Middle East, North America, Europe, Africa, and Australia. Professor Pallant is the liaison. Students receive Allegheny grades.

## School for Field Studies, Costa Rica

A one-semester program in sustainable development in the tropics. Professor Pallant is the liaison. Students receive Allegheny grades.

## Duke Marine Biological Lab, North Carolina and Bermuda

A one-semester program in marine, coastal and oceanographic biology, chemistry, policy and environment. Professor Wissinger is the liaison. Students receive Allegheny grades.

## Semester in Environmental Science, The Ecosystems Center, Woods Hole, Massachusetts

A one-semester program in coastal and terrestrial ecology, environment,
and ecosystem processes. Professor Bowden is the liaison. Students receive Allegheny grades.

## 110 Introduction to Environmental Science

An overview of the natural science and social science components of the human environment. Topics include: the ecosystem, energy, resource definitions and limitations, water supply, air pollution, sustainable design, environmental policy, environmental justice, solid and hazardous waste management, land use and conservation biology. Designed primarily for first-year students and sophomores. Emphasis is on the use of natural and social scientific knowledge in decision-making and problem-solving.

## 130 Issues in Global Health

An examination of global health and development issues including region-specific challenges to the wellbeing of populations and the environment. Students explore the collaborative, interdisciplinary approach required to address complex health challenges worldwide and critically examine the notions that wealthy countries adequately protect the health of their citizens and that poor countries lack the ingenuity to solve problems and reduce risks. Historical and current case studies demonstrate that no region has eliminated challenges to health or wellbeing, no region lacks resourcefulness, and that solutions achieved in poor countries may be applicable to populations worldwide.

## 201 Sophomore Seminar: Environmental Problem Analysis

An interdisciplinary analysis of modern controversial environmental issues. Students examine scientific, economic, cultural and political underpinnings of issues. Areas of study address environmental degradation, natural resource use and misuse, human-environmental interactions, and environmental justice. Written assignments and oral arguments and presentations are emphasized. Prerequisite: Environmental Science 110. Counts toward the major in Environmental Science or Environmental Studies.

## 210 Environmental Research Methods

An examination of analytical research methods used to study the environment. Solving environmental problems requires expertise in conducting research and in understanding how research is performed. Students will participate in field- and laboratory-based research of environmental issues within natural science and social science. Fundamental research skills, including hypothesis definition, experimental design, data analysis and presentation, will be explored. Laboratory, one period. Prerequisite: Environmental Science 110.

## 215 Introduction to Environmental Mapping

An interdisciplinary examination of the theory and techniques used in the mapping and geographic analysis of environmental problems. Environmental research increasingly depends on the ability to gather, analyze, and present geographic data using tools like global positioning systems (GPS) and geographic information systems (GIS). Students are introduced to the use of these technologies through an applied casestudy approach. Selected topics include: defining and building a GIS, map interpretation, coordinate systems and map projections, database design, and geographic analysis and modeling. Lecture: Two periods. Lab/field: One period. Prerequisite: Environmental Science 110 or permission of the instructor. This course may not be counted as a laboratory course for the Natural Science distribution requirement.

## 250 Environmental Education

An overview of the foundations of environmental education. Topics include ethical approaches to determining the value of nature, ecological implications of social values, and the role of education in
preserving and transforming social values. Systems (holistic) thinking and the development of ecological literacy are considered as approaches to achieving internationally accepted goals of environmental education. Theoretical concepts are applied to program design, implementation, assessment, and evaluation. May include a service-learning component. Prerequisite: Environmental Science 110 is recommended but not required.

## 280 Energy and Society

An overview of the domestic and international origins, drivers, and consequences of energy sources, uses, technologies, and conflicts. The range of current and future energy choices is stressed, as is the character of the current energy crisis as framed by processes of social adaptation, value transformation, technological change, and the struggle for influence in national and international arenas. Possible topics include "peak oil," climate change, biofuels for transportation, public communication strategies of multinational energy companies, building energy performance, and energy use and environmental/health impacts in the Third World. Prerequisite: Environmental Science 110 is recommended but not required.

## 315 Advanced Environmental Mapping

An interdisciplinary examination of advanced techniques used in the mapping and analysis of environmental problems. The application of remotely sensed data, coordinate geometry, and web-based mapping are introduced through case studies of local environmental issues. Students develop and implement geographic information systems for local projects. Selected topics include: digitizing and vectorization, metadata documentation, suitability and visibility analyses, network analysis, and GPS data collection and processing techniques. Lecture: Two periods. Lab/field: One period. Prerequisite: Environmental Science 215 or permission of the instructor. This course may not be counted as a laboratory course for the Natural Science distribution requirement.

## 320 Forest Ecosystems and Management

A study of forest ecosystems and threats to forests caused by human actions. The course examines fundamental ecological processes that control forest ecosystems and the importance of forests in regional and global environments. Impacts of global warming, forest harvesting, air pollution and improper management will be discussed. Management regimes that result in sustainable forest practices will also be explored. Regional forest issues, as well as national and international forest concerns, will be addressed. Laboratory exercises will examine topics in local forested environments. Laboratory, one period. Prerequisite: Environmental Science 110, Environmental Science 210 or a lab-based course in the natural science division.
335 Conservation Biology (also listed as Biology 335)
The study of biological diversity and the increasingly severe effects of human society on populations and communities of wild organisms. Emphasis on local and global patterns of diversity, causes and consequences of declines in diversity, and ways to work with natural or managed systems to maintain or restore diversity. The laboratory emphasizes learning local flora and fauna, investigating local conservation biology issues, and using tools and techniques of wildlife and natural resource management to understand and resolve conservation problems. Laboratory, one period. Prerequisites: Biology 220, 221 and FS Bio 201 or Environmental Science 110.

## 340 World Regional Geography

An examination of the physical and human forces that shape governments, economies, and culture. Topics include geology, soils, climate, agriculture, industry, politics, religion, history, and the arts. We investigate how these factors shape human interactions with the
environment and influence people's interactions with one another in various regions and countries.
342 Toxicology (also listed as Biology 342)
An introduction to the study of substances toxic to plants and animals. Special emphasis is given to the toxicology of pesticides and herbicides and their mode of action. One laboratory per week emphasizes quantitative analysis of toxins and toxic effects. Prerequisites: Biology 220, 221 and FS Bio 201 or Environmental Science 110.

343 Coastal Science and Management (also listed as Biology 343)
An examination of coastal systems. Topics include abiotic factors that shape coastal systems, dynamic interactions between organisms and coastal environments, and human impacts and policies that affect abiotic and biotic relationships in the coastal zone. Students participate in field- and laboratory-based activities and research of coastal systems and policy issues. May include field trips, with one longer weekend trip. Laboratory, one period. Prerequisites: Biology 220 and one of: Environmental Science 110; Geology 108 or 110; or permission of the instructor.
344 Stream Ecology (also listed as Biology 344)
Study of the physical and biological characteristics of stream ecosystems. The laboratory emphasizes field study of local aquatic habitats. One laboratory per week. Prerequisites: Biology 220, 221 and FS Bio 201 or Environmental Science 110.
346 Wetlands (also listed as Biology 346)
A study of the ecology and hydrology of marshes, swamps, bogs and other transitional habitats between aquatic and terrestrial ecosystems. Emphasis is on "ecosystem services" (hydrologic filters, pollutant sinks, productivity, biodiversity), on the history of wetlands destruction, and on current regulation and management approaches. The laboratory emphasizes field methods for determination and delineation of wetlands based on soils, hydrology and vegetation. Lecture: Two periods. Lab/field: One period. Prerequisites: Biology 220, 221 and FS Bio 201 or Environmental Science 110.

## 347 Environmental Protection and Institutional Change

## (also listed as Political Science 324)

An inquiry into how key elements of core U.S. institutions (e.g. the market, the State, the corporation, public education) frame and confront environmental issues, and how impediments to thinking creatively about these institutions exacerbates problems of environmental sustainability and responsive democracy. We pay particular attention to the State: what it is, why it may be a useful unit of analysis, how and why (from competing theoretical perspectives) it chooses to confront environmental ills, and how citizens can most effectively influence it.

## 350 Ecological Economics

An examination of the ways in which human economic systems depend upon and impact natural systems. The course includes topics covered in the more traditional field of environmental economics, including costbenefit analysis, incentive-based regulation of pollution, pollution taxes and tradeable permit schemes, and clean technology promotion. In addition, more fundamental issues emerging from the newer field of ecological economics are also explored, including trade and the environment, sustainable national income accounts, limits to economic growth and sustainable economic design. Prerequisites: Environmental Science 110 and permission of the instructor.

## 352 Environmental Justice

An examination of environmental issues and their implications for social justice. Topics include the history of the environmental justice movement, current conceptions and definitions of environmental justice, and case study applications. We draw from contemporary and
historical case studies such as e-waste, industrial pollution, public transit, war and sustainable development. Emphasis is placed on student-led discussions of roles that gender, race, ethnicity and class play in environmentalism and environmental controversies. Limited to juniors and seniors.
360 Religion and Ecology (also listed as Religious Studies 360)
An exploration of the intersection between religion and ecology, and how religion can both contribute to and help address environmental problems. Topics include religion's role in shaping human relationships with nature, ecological themes that cut across religions and worldviews, and issues of environmental justice as it relates to gender, race, and class. In considering how religious communities can address ecological problems, students take part in service learning projects in local congregations or environmental groups. Prerequisite: Environmental Science 110 or at least one course in Religious Studies.

## 380 Climate and Energy Policy

An examination of the international response to global climate change. Topics include climate science; climate impacts; mitigation; adaptation; energy infrastructure; renewable energy technology; and current local, national, and international policy developments. Emphasis is placed on the analysis of environmental, economic, political, and cultural drivers of and barriers to lowering greenhouse gas emissions around the world. Prerequisites: Environmental Science 110 or permission of the instructor.

## 415 Environmental Health

Investigation and analysis of current human health impacts related to environmental issues. Students study the ecological, physiological, and social underpinnings of case studies, evaluate causal and correlative associations using key epidemiological tools, design and assess control and mitigation efforts, and develop a response to a local or regional environmental health issue. Students also interpret and conduct risk assessments to prioritize various issues and to evaluate the severity of impacts on specific populations, examining how environmental issues often place disproportionate health burdens on disenfranchised communities and individuals. Prerequisites: Environmental Science 110, Environmental Science 210 or permission of instructor.

## 420 Understanding Third World Environmental Problems

A multidisciplinary assessment of the causes and consequences of environmental change and degradation in the less developed (Third World) regions of the world. Underlying forces driving critical environmental problems (e.g. deforestation; soil, air, and water pollution; soil erosion; desertification; urbanization) of developing countries are examined through the use of both case studies and theoretical literature. Prerequisite: Environmental Science 110.

## 425 Global Health Transitions

An exploration of the underlying causes and social connections of global health problems including: malnutrition, poor water quality, inadequate infrastructure, overpopulation, chronic diseases, and HIV/ AIDS, as well as issues specific to women and children. Students investigate health disparities and their ramifications at the global scale and evaluate the efficacy of intervention strategies at the local, regional, and international levels. In particular, we explore how numerous developments (urbanization, industrialization, globalization, and demographic transition) affect health and healthcare delivery and are in turn affected by human health and natural resources. Prerequisites: junior or senior standing and permission of the instructor.

## 430 Logistics in Global Health and Development

An investigation of medical, cultural, political, and environmental foundations of sustainable approaches to reducing disease and health hazards in remote or low-resource regions. Classes-comprising lecture, student presentations, and discussion - explore such topics as infrastructural and logistical barriers to care, modifications of standard clinical or scientific approaches for remote or low-resource regions, and development of opportunities for fieldwork and collaboration. Not open to first-year students. Prerequisite: Permission of the instructor.

## 431 Global Environmental Politics

## (also listed as Political Science 460)

An analysis of several global environmental issues and how these issues have shaped, and are shaping, domestic and international political relations. Special attention is devoted to international conferences such as the 1992 "Earth Summit" in Brazil and the forging of international environmental agreements. Future policy prospects and political dynamics also are discussed. Students pursuing a major or minor in Environmental Science or Environmental Studies and a major or minor in Political Science may not "double-count" this course toward the degree requirements of both departments. Prior coursework in international relations (e.g. Political Science $130,240,245$, or 251 ) is strongly encouraged.

## 518-528 Internships

All credit-bearing internships offered through the Department of Environmental Science consist of three components: (1) constructive participation in the operation of the internship organization (typically six hours/week for a two-credit internship, 12 hours/week for four credits); (2) a reflective and analytical journal to be reviewed periodically by the Internship Coordinator; and (3) a project to be determined jointly by the student, supervisor, and faculty liaison. This project is chosen specifically to integrate hands-on problem-solving with class-room-based academic principles. Students are evaluated by their supervisor, the Internship Coordinator, and the faculty liaison. All internships are two to four credits unless noted otherwise in their description.

## 518 Internship in Environmental Regulation with Pennsylvania Department of Environmental Protection

Liaison: Professor Bensel
An internship in research, analysis, policy development and implementation with the Northwest Regional Office of the Pennsylvania Department of Environmental Protection. The intern works in one of DEP's sections (Water Supply and Community Health, Air Quality Control, Waste Management, Water Management, Environmental Clean-Up, Oil and Gas, or Pollution Prevention and Compliance Assistance). Must be taken for four semester hours of credit. Prerequisites: Environmental Science 110 and permission of instructor.

## 519 Internship in Watershed Management with the French Creek Project

## Liaison: Professor Pallant

An internship in research and environmental education relating to the French Creek watershed. The French Creek Project brings together conservationists, landowners, farmers, the business community, local government officials, and academic institutions in a collaborative effort to protect one of Pennsylvania's premier streams. Interns participate in research, environmental education, public relations, and office communications; each intern is required to complete a writing assignment (in the form of information fact sheets, educational guides, etc.) as part of his/her internship. Prerequisites: Environmental Science 110 and approval of the Director of the French Creek project.

## 520 Internship in Wildlife Management with the Tamarack Wildlife Rehabilitation Center

## Liaison: Internship Coordinator

An internship in wildlife management with the Tamarack Wildlife Rehabilitation Center. The goals of the Center are to rehabilitate injured animals for release back to the wilderness and to educate the public concerning human impacts on wildlife. This internship is intended to be a first-hand learning experience in human/wildlife interactions, in particular examining the positive and negative impacts of human intervention on the natural world. The intern is introduced to the field of wildlife rehabilitation via a weekly class held by the Center's director. In addition, the intern is involved in wildlife capture, assessment, treatment, animal maintenance, and wildlife release. Evaluations of particular animals, diseases, or treatment techniques are written by the intern. To gain a fuller understanding of the context within which rehabilitators operate, the intern participates in educational programs for the public and discussions with other wildliferelated groups. Prerequisites: Biology 220 and approval of the Director of Tamarack Wildlife Rehabilitation Center.

## 521 Internship in Environmental Geology with Moody and Associates

(also listed as Geology 521)
Liaison: Assistant Professor O'Brien
The internship involves participation in conducting hydrogeologic investigations and the preparation of groundwater-resource reports. Prerequisites: A minor or major in geology and completion of Geology 310 and 400.

## 522 Internship in Environmental Education

(also listed as Geology 522)
Liaison: Internship Coordinator
An internship in environmental education working with children and/ or adults at a local educational facility, such as the French Creek Outdoor Learning Center. This facility is a collaborative effort of the French Creek Project, three local school districts, the Crawford County Development Corporation, and Allegheny's College/Schools Collaborative; as a remediated Superfund site, the Outdoor Learning Center offers many unique opportunities for exploration and interpretation of local ecology and geology. The Center's mission is to promote one of Pennsylvania's premier streams while exploring the impacts of environmental cleanup and management. Interns at this or other environmental education sites participate in research, curriculum development, environmental education, public relations, and office communications. Prerequisites: Environmental Science 110 and approval of the supervisor at the internship site.

## 523 Internship in Conservation Biology with Erie National Wildlife Refuge

(also listed as Biology 523)
Liaison: Professor Wissinger
The intern becomes familiar with the operation of a National Wildlife Refuge and participates in a research project related to wildlife management and conservation biology. In order to be eligible, the student must develop a project proposal in consultation with the liaison and refuge manager. Projects normally involve field or interpretive projects that culminate in a project report, pamphlet, or brochure that is submitted to both the liaison and refuge manager. Prerequisite: Biology 220.

## 524 Internship in Land and Water Conservation

Liaison: Professor Pallant
An internship with land and water conservation with the Crawford County Conservation District or the Natural Resources Conservation

Service. Both of these governmental agencies work with forestry and agricultural practitioners to protect soil and water resources in Crawford Country. The intern participates in projects such as farm conservation planning, flood prevention and watershed control, conservation education, and field assessments of streams, riparian zones and agricultural areas. Prerequisites: Environmental Science 110 and approval of the supervisor at the internship site.

## 525 Internship with the Crawford County Planning Commission

(also listed as Political Science 518)
Liaison: Internship Coordinator
The student may elect one of the following internship experiences provided he or she has the indicated prerequisites: 1) A specific research project or general work with the Planning Commissioner. The work of the internship requires approximately 10 hours per week. The project is evaluated jointly by the supervising faculty member(s) and the Planning Commissioner; research projects are evaluated through discussions involving the Planning Commissioner, and supervising faculty member(s) and the intern. Prerequisites: Approval of the liaison and the Planning Commissioner, Political Science 341 or 345, and Economics 340, 360 , or 585 are recommended. The student intern contracts for two to four semester hours. 2) A project which would involve the preparation of maps and/or reports related to land-use planning, evaluation of natural resources such as sand and gravel deposits, or delineation of areas subject to natural hazards such as flood plains. The liaison, in consultation with the Planning Commissioner, determines a grade based on the student's final report. Prerequisite: The student must develop a project proposal which is acceptable to both the Planning Commissioner and the liaison. The student intern contracts for two to four semester hours.

## 527 Internship in Fisheries Biology with the Pennsylvania Fish Commission

(also listed as Biology 527)
Liaison: Professor Wissinger
The intern becomes acquainted with the operation of a fish culture station and participates in a research project related to fisheries management. The internship is conducted in cooperation with the Linesville fish culture station near Pymatuning Lake. In order to be eligible, the student must develop a project proposal in consultation with the liaison and station superintendent. Projects normally involve a field or laboratory study, or a public relations project that culminates in a project report, pamphlet, or brochure that is submitted to both the liaison and refuge manager. Prerequisite: Biology 220.

## 528 Internship in Industrial Ecology

## Liaison: Internship Coordinator

An internship in industrial ecology with a local industry. Working with the plant engineer, the intern examines the regulatory framework the industry operates within, becomes familiar with the manufacturing processes for a particular industry, and investigates resource/waste minimization opportunities for the industry. Regular meetings with the supervisor, other employees, and environmental engineers from other area industries help develop the intern's understanding of how environmental regulations and opportunities are perceived by different industries and by individuals with different roles within a particular industry.
Prerequisites: Environmental Science 110 and permission of the instructor.
580-589 Junior Seminars
Seminar discussion on a selected interdisciplinary topic in environmental science in preparation for the development of senior research topics. Students analyze the literature, write a literature review, present a
seminar, and submit a research proposal. Prerequisite: Declared major in Environmental Science or Environmental Studies or permission of instructor.

## 581 Aquatic Resources

582 Terrestrial Ecosystems
583 Environmental Solutions
585 Sustainable Development
586 Sustainable Energy
587 Environmental Education
588 Environmental Health, Justice, and Development
589 Environmental Protection
590 Independent Study
600 Senior Project I. Senior Research and Seminar in Environmental Science
Students are evaluated on their proposal and presentation at the preliminary meeting and on progress made during the fall semester. Prerequisite: One of ES 580-89. Credit: Four semester hours.

## 610 Senior Project II. Senior Research and Seminar in Environmental Science

Students are evaluated on their research effort, oral defense, and written senior thesis. Taken in the spring semester. Prerequisite: Environmental Science 600. Credit: Four semester hours.

## Sophomore Seminar

## FS ENV 201 Communication in a Discipline

Environmental Problem Analysis
An interdisciplinary analysis of modern controversial environmental issues. Students examine scientific, economic, cultural and political underpinnings of issues. Areas of study address environmental degradation, natural resource use and misuse, human-environmental interactions, and environmental justice. Written assignments and oral arguments and presentations are emphasized. Counts toward the major in Environmental Science or Environmental Studies. Prerequisite: Environmental Science 110.

## Experiential Learning (ACCEL)

The Allegheny College Center for Experiential Learning (ACCEL) coordinates a variety of activities-non-credit career internships, off-campus study programs (domestic and abroad), service-learning, and leadership development-that are designed to help students make connections between their academic programs and co-curricular experiences. Students are active learners.

Through participation in experiential learning activities, students develop interpersonal, communication, critical thinking and job-related skills; gain self-confidence; and gain experience to enhance their marketability. ACCEL serves as a clearinghouse for experiential learning activities, and staff members are available to assist students with the creation and selection of these activities. The ACCEL Resource Center offers materials on all of these areas and programs. The ACCEL website offers a comprehensive experiential learning database, through which students can research various opportunities.

The following courses are supported through the ACCEL office. For more information on these, as well as details on the programs offered by ACCEL, see Allegheny College Center for Experiential Learning in the Student Life and Services section of this catalogue.

## EXL 300 Cross-Cultural Learning: Theory and Practice

Required of all students in Allegheny-sponsored off-campus programs. This course provides grounding in cross-cultural learning and communication, and guidelines for reflection on experiential learning. It provides a framework for students to explore the dimensions of their time off-campus-differences and similarities among people, lifestyles, learning styles, and even knowledge itself. Students must complete the predeparture orientation requirements (readings, assignments, paperwork submissions, etc.), on-site blogs, and re-entry assignments (final paper \& poster session) upon return to Allegheny. The course is posted to their transcript the semester they return to campus. Credit: One semester hour.

## INTDS 201 Service Learning: Theory and Practice I

A seminar focusing on the use of service and community engagement as a pedagogy for higher education. Students study the definitions, theories, and assessments of community-based service-learning as "text." The role of reflection in fostering student learning is explored in depth. This is the first of a two-part sequence on service-learning theory and practice and culminates in the design of a service-learning component for an existing course. Credit: Two semester hours. Prerequisite: One service-learning course.

## INTDS 202 Service Learning: Theory and Practice II

A seminar and practicum focusing on the use of service and community engagement as a pedagogy for higher education. Students carry out the service-learning plan designed in the preceding course and serve as peer mentors for students in INTDS 201. This is the second of a two-part sequence on service-learning theory and practice and culminates in a formal presentation on the service-learning project undertaken. Credit: Two semester hours. Prerequisite: INTDS 201.

## EXL 594 Experiential Learning Travel Seminars

A short-term intensive course usually offered between semesters or after spring semester. Travel Seminars typically include travel in the U.S. or abroad, and incorporate direct observation of or involvement in activities that complement or illustrate the subject matter. The seminars
integrate students' experiential learning activities with theory and research in various fields. Students are exposed to diverse ideas, peoples, cultures, or ways of living and thinking. The courses are designed and taught by Allegheny faculty. Individual Experiential Learning Seminars are reviewed by the International Working Group and approved by the Curriculum Committee. Credit: two, three, or four semester hours.

## First-Year/Sophomore Seminars

The First-Year/Sophomore program encourages careful listening and reading, thoughtful speaking and writing, and reflective academic planning and self-exploration. These courses provide students opportunities to develop communication and research skills useful for generating, exploring, defending, and challenging ideas, which prepares students to succeed in the Junior Seminar and Senior Project that are required in the student's major. Taken together, the FS program, Junior Seminar, and Senior Project ensure that all Allegheny graduates are equipped to think critically and creatively, to communicate clearly and persuasively, and to meet challenges in a diverse, interconnected world.

## FS 101 Academic Discourse I

An exploration of oral and written communication with a focus on description and summary. The topical material covered in the seminar varies from section to section and year to year. All first-year students take Academic Discourse I during the fall semester; the seminar instructor serves as the student's first academic advisor. As part of the advising process, students explore both individual interests and possible academic paths. The course must be taken on a letter grade basis.

## FS 101 Academic Discourse I

## Espionage: From Spies to Satellites

An exploration of the history and implications of espionage in today's society. Espionage has been practiced for thousands of years, evolving from the physical infiltration of the enemy to the remote satellite surveillance of the present day. The tensions between the freedom of information, the right to privacy, and the need for security are examined. This seminar emphasizes language, both written and oral, as a tool for exploration, description, and summary.

## FS 101 Academic Discourse I

History of the Universe, from Aristotle to Einstein and Beyond An historical overview of cosmology, the study of the origin and large scale structure of the universe. We examine the history of humankind's understanding of the universe from earliest times up to the present day. In addition, we examine the scientific, cultural, and religious forces that influence the continuing evolution of the history of our understanding of the universe. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Graphs, Surfaces, and Knots

An exploration of visual mathematics focusing on graphs, surfaces, and knots. Employing a task-oriented approach, we look at examples, notice patterns, make and test conjectures about these patterns, and seek to support these conjectures-exactly what mathematicians do in making their discoveries. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.
FS 101 Academic Discourse I

## Mathematics and Storytelling

An exploration of mathematics in fiction. The role that math plays in literature, on Broadway, and on the big screen, is examined, and the relevance and accuracy of the mathematics, whether real or imaginary,
are addressed. Fictional portrayals of mathematicians and the impact on public impressions of mathematics are also considered. Various mathematics topics, including some famous math problems, are introduced as needed. The seminar emphasizes language, both written and oral, as a tool for exploration, description, and summary.

## FS 101 Academic Discourse I

## Food Fights

What did you have for breakfast this morning? Cereal, perhaps? Or scrambled eggs and toast? While eating is an essential part of our daily lives, the notion of where our food actually comes from is rarely questioned. This seminar explores the hidden truth behind the food consumed by mainstream Americans. Students take a close look at the world of industrial food and examine its social, ethical, nutritional, and environmental impacts. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary and critical thinking.

## FS 101 Academic Discourse I

The Art in Science and the Science in Art
An exploration of the underlying issues that unify art and science. Until the 1900s, artists and scientists stood on equal ground. Since the mid-1900s the educational system and modes of funding for art and science have served to segregate these disciplines. By examining works of art and science and how they have manifested themselves in society, students build bridges between art and science. This survey discusses philosophical and societal concepts that inform both artist and scientist and illuminate the process of revelation or discovery. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

The Roots of American Politics
An exploration of the leading political figures and events at the dawn of U.S. history. The American system of government has undergone dramatic changes in two centuries, but on a fundamental level much of
contemporary politics springs from early events. We explore the origins of the American political system and take an in-depth look at key participants and critical events in order to appreciate how the formation period continues to shape the political world in the United States. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## The Politics of Memory

An examination of how newly democratic nations come to grips with past periods of political violence. Since the end of the Cold War, dozens of countries have struggled with the question of whether to forgive perpetrators or to seek justice for victims. Through novels, films, individual testimonies, and truth commission reports, we examine the moral, legal, and political consequences of remembering and forgetting in several case studies (e.g., Argentina, South Africa, and Rwanda). We also examine the U.S.'s position on these issues in its role as global leader. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## End of the World

An exploration of the idea of the end of the world, especially as it has played itself out in contemporary culture. Everything did not end on January 1,2000 , yet the possibility still remains that the world might be in its last days. Students explore Biblical texts, images of nuclear and environmental holocaust, modern literature, art, and music to understand why eschatological images have such a powerful hold on our imaginations, in order to come to an understanding of what we ultimately value as individuals and as a society. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## America at Work

An exploration of the aspirations, opportunities, and predicaments of the American worker. Students examine the psychosocial aspects of work and its relationship with the broader American ethos. The complex relationship between employers and employees is addressed, with particular emphasis on power structures implicit in the economic, political, and legal environments of the workplace. Beyond historical analyses, students analyze current issues that may include work-family balance, outsourcing and globalization, the working poor, and the challenges faced by the American labor movement. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Business Ethics

A study of the dynamic relationship between corporations and the society in which they operate. Students explore issues such as personal gain versus objectivity and loyalty, employer responsibility for employee safety, and the ownership of ideas. We consider whether the lack of an ethical commitment can bring about the demise of a corporation. Students examine the fates of companies such as Exxon, Denny's, R.J. Reynolds, Enron, and others whose ethical mishaps resulted in public exposure. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Shakespeare on Screen

An examination of the phenomenon of Shakespeare's popularity as a cultural icon in America today. Why do we read his plays? How do they speak to contemporary concerns about race, sexuality, social class, and morality? Why have they been adapted as films to appeal to wider audiences, and especially teens? Students read plays in conjunction with viewing recent screen adaptations: Taming of the Shrew and 10 Things I Hate About You; Twelfth Night and She's the Man; Othello and O; Macbeth and Scotland, PA. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

"Sex" Sells-Sex and Gender in American Consumer Culture An examination of the use of sex-in all its forms and definitions-in contemporary advertising and consumer culture. This seminar examines the ways in which our practices as consumers reflect and/or comment on the idea that "sex sells." Students explore, from a variety of disciplinary perspectives, the ways in which advertising and consumer culture affirm, challenge, and/or redefine particular constructions of sex and gender. Seminar participants consider the relationships among advertising, consumer practices, and ideas about sex in contemporary American society. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

College: Why Bother?
An interrogation of the reasons for being in college. We live in a period of unparalleled crisis and change, challenging our most basic assumptions about education. What and how have you learned so far? Are you equipped to make the most of your four years of college? How much do you know about the world you will enter when you graduate? The choices you make in your years at Allegheny will be critical to your success as citizen and employee. Therefore, this course looks at alternative modes of thought and the rationale for liberal arts education while considering the social, environmental, economic and political demands of 21st century citizenship and the global marketplace.

## FS 101 Academic Discourse I

Coming of Age: Depictions of Adolescence in Film
An exploration of the rites of passage from childhood to adulthood as depicted via the cinema. Students critically engage with historical and contemporary depictions of adolescence, addressing questions such as how one's identity is shaped by the images one consumes; how the presence or absence of particular depictions impact one's self image; how these images shape the relationship between adolescents and society; and how and why these depictions have shifted over time. Films for possible consideration include, but are not limited to, Rebel Without a Cause, Juno, Stand by Me, Napoleon Dynamite, Welcome to the Dollhouse, Nick and Norah's Infinite Playlist, Dead Poet's Society, and Breaking Away. Course work emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

Genetics in Popular Culture
An examination of the ways in which genetics and genetic medicine are represented in American popular culture. Most Americans are now comfortable with everything from DNA as the basis of criminal
investigation to personalized home gene testing to assess our future health risks. Students look at how genetic ideas have become part of American culture in TV, news, books, and films. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Shared Futures: Building Sustainable Communities

An introduction to environmental issues from a media and cultural studies perspective, with interdisciplinary readings and shared modules with a partner FS 101 section in the natural sciences. Topics include local/global food and water debates, the privatization of natural resources, eco-tourism, and efforts to build sustainable communities. Together, as a living-learning community, we design sustainability projects from the framework of global interconnectedness or shared futures. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Theatre and Community

An exploration of theatre as communal practice. How is drama created? What can we learn about culture through performance? In this course, students examine fundamental issues about social and cultural practices, dramatic conventions, and how theatre reflects our fragmented society. Students study plays and performance traditions, develop improvisational acting and writing skills, and create and produce an original theatre performance as the final project for the course. Course work emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Art in the Technoculture

An exploration of the relationship between technology and the fine arts. Is a camera an art-making tool or an image-recording device? Is art about media or concepts? Must real art be made by hand? Can a machine make art? If art is a reflection of its age, how does art react to the technological culture in which we live? We explore these questions through art projects, readings, art viewings, oral presentations, and discussions. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Fresh Water Around the World

An examination and discussion of the quantity and quality of fresh water at local and global scales. We explore sources of fresh water, how it is used, and how much we actually need to survive. Then we turn to issues of water quality: the major types of fresh water contamination and resulting disease and/or health risks. As part of a living-learning community, students participate in shared teaching modules with a partner FS 101 section in the humanities to examine issues surrounding the privatization of water supplies and how adequate public water resources are an integral part of sustainable communities. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Religious Themes in Rock Music

An examination of religious themes in rock lyrics in historical perspective. We consider such topics as the human situation, the self
and the other, God, faith and love, Jesus as clown and superstar, time and death, eschatological themes, and prophetic voices. Students examine the ways in which rock music resembles religion. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

Americans in Paris: Setting an Agenda for 20th-Century Culture A multidisciplinary exploration of the rich contributions to modernist culture made by American expatriates in Paris in the first half of the 20th century and the significance of the city itself for the creative lives of these figures. Topics include Gertrude Stein's contribution to modern art and literature, Man Ray's role in the Dadaist and Surrealist movements, Hemingway's Parisian apprenticeship, the cultural impact of African-American jazz musicians in Montmartre, and the particular significance of Paris for women and African-American writers and artists. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

Of Gods and Monsters: Religion and the Problem of Evil
Most people do not go to church or temple or ashram in search of monsters. Yet religion is never without its monsters when faced with one of the oldest conundrums of human thought: unde malum? From where does evil come? In this course, we investigate what religion has to do with monsters. We can learn something about a religious tradition by getting to know its monsters, and we can learn something about monsters by looking at their religious heritage. We enrich our exploration of the problem of evil by paying attention to both the representations of the monstrous in classic religious texts and in contemporary literature and cinema. This seminar emphasizes language, both written and oral, as a tool for exploration, description, and summary.

## FS 101 Academic Discourse I

## Love and Friendship

An exploration of close personal relationships as they have been traditionally understood in Western culture. What leads to love between two people? Does love bring out the best or worst in a person? What is the nature of friendship, and what qualities make a good friend? Are friendships between men different than friendships between women? These questions are explored through class discussion of films, television programs, music, and classic and modern texts, including Plato's Symposium, Shakespeare's Sonnets, and Fitzgerald's The Great Gatsby. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## The Biology in Science Fiction

An introduction to basic biological concepts using the medium of science fiction. Discussions range from defining the essential elements of good science fiction to the vital role of the imagination in the physical world. Biological topics for discussion are quite varied, and may include such diverse concepts as the chemical basis of life, evolution, and reproductive strategies exhibited by living organisms. Throughout the semester emphasis is placed on the application of scientific principles to creative settings as defined in contemporary science fiction literature and films. This seminar also emphasizes language, both written and oral, as a tool for the exploration, description and summary.

## FS 101 Academic Discourse I

Leadership, Creativity, and Communities of Practice
An exploration of leadership and creativity in the context of communities of practice. Leadership is far more complex than stepping to the front and taking charge, especially in the highly connected, distributed context of the digital age. Students use the "open source" movementthe art, documentation, and software made by volunteers around the planet to be given away for free- as a focus of study in order to develop a deeper understanding of leadership and creativity in their own communities of practice. Activities include joining and contributing to existing open source projects to provide real-world experiences for writing and reflection. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Software Everywhere

An examination of the pervasive nature of computer software and the impact that computer technology has on society. Drawing on articles from the popular press and the computer science literature, this course examines the technical and ethical challenges that face a culture that regularly uses computer software applications. Sample topics include the Internet, Google, online music, open source software, electronic commerce, social networking, and data mining. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## The Best War Ever? World War II and the Greatest Generation

An historical exploration of how a necessary war against international aggression in Europe and Asia has in our day been transformed into "the Good War." Through the use of primary and secondary source material, including film, students track how the Second World War-a complex, problematic event, full of nuance and debatable meaning-was turned into the ideal conflict, "the best war ever." Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Chinese Emperors and Empresses: from the First to the Last

A study of the than 200 emperors in China's 2000-year-long imperial history. What role did they play in Chinese history and in making China as it is today? How are they evaluated by the Chinese people? Using scholarly works, autobiographies, documentaries and feature films, students study the rise and fall of the most important Chinese emperors and empress from the first emperor of the Qin to the very last one, Puyi, who abdicated in 1912. We examine how these monarchs established a Chinese imperial system, sought and maintained their power and pursued change, looked at their own position in history, and handled their relationships with ministers, families, and their subjects. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## America's First Ladies

An exploration of the role of America's "First Lady" and its evolution from Martha Washington to Michelle Obama. Presidents' wives have played an important role in American life. Objects of public adoration and vilification, their lives have reflected the conflict and controversy
that surround the undefined, unofficial job of America's "First Lady." This seminar explores the history of the presidential couple and its evolution as an "ideal" in American life. Special attention is paid to modern presidential couples from Franklin and Eleanor Roosevelt to Barack and Michelle Obama. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

Beyond Flamenco and Bullfights: Democracy in Spain
An introduction to contemporary Spain. When Franco's long dictatorship ended with his death in 1975, Spaniards embraced democracy and tried to ignore past divisions. Spain became Europe's model country, with a thriving economy and an energetic democracy. However, according to Giles Tremlett, Spaniards have not been successful in "burying the trauma of the civil war." This course analyzes the difficult process of creating a democracy after discord. Students study films, short stories, and television to learn about the political and cultural currents that both separate and unite contemporary Spaniards. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## I Am Language

An interdisciplinary inquiry into the relationship between language, life, and learning. Topics for study and discussion include whether language determines who we are and how we think, its potential and limitation as a mode of communication, the use of different language registers (academic, artistic, personal), and issues of translation both between and among languages and the linguistic translation of our experience. Students learn the importance of language to their success at Allegheny and beyond. Previous foreign language experience is helpful but not necessary. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Uncovering the Veil

What does it mean to be a veiled woman? Whether seen as religious, oppressive, or exotic and foreign, the topic of the veil elicits strong reactions by those who wear it and by those who comment on it from the outside. In this course the veil serves as a means through which to explore the Koran and the Hadith, the politicization of the veil, and ideas about freedom and equality. Case studies include the United States, France, Egypt, and Iran. We use scholarly articles, essays, autobiography, and films to explore religious and cultural issues associated with the veil and the Muslim women who wear it. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Mind Myths

An exploration of the origin and validity of popular assumptions-as well as evolving scientific theories-about the brain and mind. Our examination of past and present evidence-based theories and models of brain organization and function considers the importance of perspective, paradigm, and technology to our ways of knowing about brain/ mind functions. Students visit Allegheny's neuroscience laboratory facilities and examine a number of current questions that challenge contemporary neuroscientists. Coursework emphasizes the develop-
ment of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Think Globally, Eat Locally

An exploration of how our food choices affect us and our community. Psychological, sociological, and political perspectives are used to examine the local and global impact of what we put on our plates and how it gets there. Students participate in a community action component as well as shared meals, field trips, and discussions with representatives from the community. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## The Art of Storytelling

Regaling friends with a description of last weekend's adventures ... Explaining to your employer just why your having missed a project deadline shouldn't affect your job rating ... Writing an academic paper that enlightens your professor and convinces her to give you a good grade ... Telling stories is a part of everyday life, and being able to tell them well is a very useful skill. Through an examination of both traditional and modern forms of storytelling, students practice writing and telling stories in a way that is dynamic, compelling, and engaging. The seminar includes opportunities for both in-class and public storytelling as well as significant experience listening to stories from a variety of traditions. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

College is the Answer...But What was the Question?
An inquiry into the history and functions of higher education in America, with special focus on the raw material of schooling: You. College is often characterized as a vehicle for discovering one's passions while cultivating the capacity for genuine freedom. But if one isn't wary and mindful, schooling can constrain the imagination, limit passion, discourage creative thinking, and lure us into a narrow definition of "success." We examine these issues through literature and films that explore topics of captivity, freedom, college life, passion in the classroom, and the virtues of a "liberally educated" citizen. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## America's Energy Future

An examination of the history and future of energy use in the United
States, paying particular attention to technical, economic, political, and social barriers to be overcome to usher in the new renewable energy sources needed to power our future. Within a few decades the types of energy we use in our daily lives and how we use that energy will undergo profound changes in the greatest energy transition since the Industrial Revolution. How we approach that transition as a nation will have significant consequences for our economy, environment, and society, ensuring that this issue will be surrounded by controversy. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Ethnicity and Environmentalism

An examination of the role of ethnicity in shaping environmental experiences with a focus on the work of contemporary Black environ-
mental leaders. Environmentalism in the United States, founded upon the values and perspectives of White middle-class citizens, has historically focused its efforts on protecting the nonhuman natural world. Some believe that ethnic groups, underrepresented in mainstream environmental organizations, place little value on preserving the integrity of ecological systems. Others argue that mainstream environmentalism's narrow focus on plant and animal species neglects to include human beings in the discussion of natural resources, leaving little room for the voices of many Black Americans. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

Are You Game?
An exploration of the importance of games in human culture: why we play games; what we can learn from games about human nature, society, and interpersonal interactions; and how games help us learn. Students examine these questions through discussion of game theory as well as hands-on experience playing a variety of games. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

Issues in Public Health: From Antiseptics to Avian Flu
An exploration of public health through readings, discussion, and case studies. We explore factors influencing health in both developed and under-developed regions, and we define public health from several perspectives and consider key historical figures and milestones. Case studies are used to examine public health as an intricate web of interconnected disciplines including the sciences, social justice, economics, culture, and politics. The organization of the health-care system is considered in the delivery of public health interventions. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

"I am [your name here]"
An exploration of personal narrative as a text. We analyze how personal narratives can be used to inspire, inform, and persuade. Students construct a narrative of their first semester at Allegheny and a tentative plan for navigating subsequent years at Allegheny through multiple writing and speaking assignments. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 101 Academic Discourse I

## Those Strange German Ways

An introduction to German culture and an examination of cultural differences between the United States and Germany. Using examples of German culture from translated sources including literature, newspapers, films, and visual representations, the course analyzes some commonly held (mis)conceptions about Germany and the Germans. Coursework emphasizes the development of effective oral and written communication skills with a focus on description, summary, and critical thinking.

## FS 201 Communication in a Discipline

An exploration of oral and written communication with a focus on communication within a specific academic field. Students investigate the conventions of communication in the discipline and the methods by which practitioners position their work within larger disciplinary contexts. Does not count for distribution. Prerequisite: FS 102. The course must be taken on a letter grade basis.

## FS BIO 201 Communication in a Discipline

## Investigative Approaches in Biology

An investigative laboratory course that emphasizes experimental design, modern experimental techniques and instrumentation, analysis and interpretation of data, and written and oral presentation. The course consists of three multi-week project modules designed to illustrate investigative approaches at different levels of biological organizationmolecular/cellular, organismal/physiology, and population /ecosystem. There is an emphasis on independent and cooperative laboratory/field work, and on writing and speaking in the sciences. One two-hour recitation/discussion and three-hour lab period per week. Four credits. Prerequisite: Biology 220. This course is required for Biology majors and minors.

## FS COM 201 <br> Communication in a Discipline

Visual Culture
An introduction to speaking and writing in the disciplines of Communication Arts and Theatre. Emphasis is placed on critical examination of visual culture, particularly mass-mediated images from movies, TV shows, movies, advertisements, graphic novels, and the web. We also consider the visual aspects of live performances in theatre, social protests and everyday life. Students are encouraged to explore the political consequences of visual practices, especially how visual culture influences collective actions and shapes collective identities. This course may be counted towards the major or minor in Communication Arts and Theatre.

## FS DMS 201 Communication in a Discipline

## Dance: Ritual of Experience

An exploration of ritual and ceremonial dances from multiple cultural perspectives, drawing upon insights into dance as human thought and as physical, cultural, social, economic, psychological, political and communicative behavior. Of particular interest is the role dance plays in the expression of both resistances to and maintenance of cultural expressions of power and value. Special emphasis is placed on relating each student's personal experience of dance to the topics covered. Effective writing and speaking within the guidelines of the discipline is emphasized. May count toward a minor in Dance and Movement Studies.

## FS ECO $201 \quad$ Communication in a Discipline

## Economics of Discrimination

Description pending.

## FS ENG 201 Communication in a Discipline

## Writing and Speaking About Literature

An introduction to writing, speaking, and research in the discipline of English. Students apply a variety of critical approaches to a small number of literary texts, develop research and interpretive skills, and present their work in oral and written forms.

## FS ENV 201 Communication in a Discipline

## Environmental Problem Analysis

An interdisciplinary analysis of modern controversial environmental issues. Students examine scientific, economic, cultural and political underpinnings of issues. Areas of study address environmental degrada-
tion, natural resource use and misuse, human-environmental interactions, and environmental justice. Written assignments and oral arguments and presentations are emphasized. Counts toward the major in Environmental Science or Environmental Studies. Prerequisite: Environmental Science 110.

## FS GEO 201 Communication in a Discipline

Field Geology
Applied principles and field methods in geology and environmental geology. Students are exposed to critical analysis and communication in the geosciences through field and laboratory projects involving topographic maps, aerial photographs, geologic maps, rock and soil properties, subsurface drilling and geophysical data, and computer applications. Geologic mapping and hazards, landfill siting, environmental pollution, and oil exploration issues provide context for the projects. Field work or laboratory, one period. May include a multi-day field trip. Prerequisite: Geology 108 or 110. May count toward a major or minor in Geology. Students who have taken Geo 230 prior to Fall 2006 may not take this section of FS Geo 201.
FS HIS 201 Communication in a Discipline
Reconstructing the Past: The Battle of Poitiers (1356) and the Hundred Years War
An introduction to writing and speaking in the discipline of history. Students learn the methods of historical inquiry by participating in an exercise in historical reconstruction and interpretation of the Battle of Poitiers, one of the decisive engagements between the English and the French in the dynastic struggle for the French throne. Among the disputed questions considered are the exact location of the encounter, the disposition of troops, the identity of the participants, the role and nature of the leadership, the effectiveness of weaponry, the character of chivalric tradition, and the tactics of medieval warfare.

## FS HIS $201 \quad$ Communication in a Discipline

Nationalism and the American Civil War
An introduction to writing and speaking in the discipline of history, focusing on the development of nationalism in the Union and Confederacy during the American Civil War. Students briefly explore the pre-war development of American nationalism and examine in depth the development of nationalist sentiments in the North and South during the war. Among the issues discussed are slavery and emancipation, liberty and war, and the roles of dissent in wartime.

## FS HIS $201 \quad$ Communication in a Discipline

Transitional Justic in the Contemporary World
An introduction to writing and speaking in the discipline of history. Students examine the various ways in which newly-emergent democracies have dealt since World War II with the horrors perpetrated by the regimes that they replaced. Should priority be given to punishing those who have committed terrible crimes or to seeking political stability and social reconciliation? While focusing on current debates between proponents of retributive justice and advocates of restorative justice,
this course examines how disgraced fallen regimes have been treated in a variety of historical contexts, from the Nuremburg War Crimes Tribunal to the demise of apartheid in South Africa.

## FS MAT 201 Communication in a Discipline

## Applications of Wavelets

An introduction to writing and speaking in the discipline of Mathematics. Wavelet analysis, a relatively new area of study, has connections to a variety of areas including image compression, speech recognition, DNA analysis, and forgery detection. After learning about the mathematics involved, students explore some of these applications in greater detail. In addition to effective oral and written communication in Mathematics, the use of mathematical software packages such as Mathematica and LaTeX is emphasized. This course may be counted toward the completion of a major or minor in Mathematics. Prerequisite: Mathematics 160 with a grade of "C" or better, or permission of the instructor.

## FS PHY 201 Communication in a Discipline

## Investigative Approaches in Physics

An investigative laboratory course that emphasizes experimental design and analysis, interpretation of data, and written and oral presentation. This course stresses independent and cooperative laboratory work. Writing and speaking in the physical sciences is emphasized through written, oral and poster presentations. Prerequisite: Physics 120 or Physics 102.

## FS POL 201 Communication in a Discipline

## Law, Courts, and Social Change

An introduction to writing and speaking in the discipline of Political Science. The popular understanding of the legal system in the U.S. holds that courts are-for better or worse-uniquely positioned to bring about social change. Many disadvantaged groups have gone to the courts to secure the rights denied them by the political branches of government. In this discussion-oriented examination of courts as agents of social reform, we see that studies have shown that-in addition to legal resources-institutional factors, judicial ideology, litigant type, and local political culture can affect the outcome of cases involving disadvantaged groups.

## FS PSY 201 Communication in a Discipline

## Disorders of Thought

An exploration of the evolution of the research and theory on a specific topic in psychology. Through an examination of relevant primary source materials, the course demonstrates how questions prompting research on a specific topic, as well as research methodologies, have evolved. Effective writing and speaking within the guidelines of the discipline are emphasized. The focus for this section is the evolution of thought regarding identification of, explanations for, and treatment of psychotic behavior. Prerequisite: Any course in Psychology. Psychology majors are encouraged to take their sophomore seminar in the Psychology Department. May count toward a major or minor in Psychology.

## FS PSY 201 Communication in a Discipline

Children and Families Contemporary Psychological Examinations of Adoption
An exploration of the evolution of the research and theory on a specific topic in psychology. Through an examination of relevant primary source materials, the course demonstrates how questions prompting research on a specific topic, as well as research methodologies, have evolved. Effective writing and speaking within the guidelines of the discipline are emphasized. The focus for this section is an examination of writings and studies from psychologists and social welfare professionals in the international and domestic adoption research field who have investigated the various facets of the adoption experience from both the parents' and the adoptees' perspectives. Prerequisite: Any course in Psychology. Psychology majors are encouraged to take their sophomore seminar in the Psychology Department. May count toward a major or minor in Psychology.

## FS SPA 201 Communication in a Discipline

## Spanish for Majors and Minors

Designed for students interested in completing a major or minor in Spanish. Emphasis is placed on developing the writing and speaking skills necessary for the student's successful participation in upper-level courses. Special attention is paid to providing the tools for the critical analysis and study of Peninsular and Latin American literature, culture, and civilization. Special attention will also be paid the student's specific needs, according to their field. Prerequisite: Spanish 215.

## Geology

Professors O'Brien, Cole, Schwartz

Geology is the study of the Earth-the materials that make it up, the processes that shape it, the record of ancient and modern environments, and the history of the planet and its life forms since its origin. Like other sciences, geology is based upon observation and problem solving. Unlike most sciences, however, it is an outdoor science with the Earth as its laboratory. It is also an interdisciplinary science, utilizing principles of physics, chemistry, biology and mathematics to unravel the mysteries of Earth and other planets. By studying geology, you develop an understanding of earth processes; an understanding of the interactions between the solid earth (lithosphere), the hydrosphere, the atmosphere, and the biosphere; you also learn to appreciate the place and role of humanity living on the Earth today as well as within the context of geologic time.

Geology has both theoretical and applied aspects. The study of geology provides the knowledge needed to answer fundamental questions about how our planet works. In addition, the knowledge of the Earth gained through geology serves humanity by helping to better understand the past, manage the present, and predict the future. As stresses due to increased population and resource development have increased rapidly in the past few decades, so has the recognized need for geologists with a special understanding of how the Earth operates. Environmental geology is the application of geologic principles and knowledge to a wide spectrum of topics defined by possible interactions between humanity and the physical Earth. Geologic principles have been applied to problems of the environment since the birth of geology. Some topics studied within environmental geology are water resources and contamination, river processes and flooding, groundwater, coastal processes, impact of climatic change, hazards such as landslides, earthquakes, and volcanoes, energy and mineral resources, and land use.

Major programs offered within the Department of Geology meet specific professional objectives as well as the broad objectives of a liberal arts college. The department offers three programs that are designed to meet different objectives: Bachelor of Science in Geology, Bachelor of Science in Environmental Geology, and Bachelor of Arts with a major in Geology. The Bachelor of Science program in Geology is designed to prepare students for graduate study in all aspects of geology or for employment as professional geologists. The Bachelor of Science in Environmental Geology is designed to prepare the student for graduate study involving Earth-surface processes or for employment as an environmental geologist. The Bachelor of Arts program can be arranged to accommodate other objectives such as teaching earth science at the secondary level, preparing for graduate programs in law or business, or entry into a career field.

## The Major

At graduation, Geology majors are required to have a GPA of at least 2.0 in departmental courses and in those courses in other departments required for a Geology major. All required courses and electives taken at Allegheny on a letter grade basis are included in the calculation, with the exception of repeated courses for which only the most recent grade counts. Majors need to secure the permission of the department chair to take required courses on a Credit/No Credit basis.
The requirements for each of the programs are as follows:

## Bachelor of Science degree in Geology

The successful completion of Geology 108 or 110, 120, FSGeo 201, 250 , one 300 -level course, $410,420,430,580$, and 600 and 610 or 620; Chemistry 110 and 112; Physics 101 and 102 or 110 and 112; and Mathematics 160 and 170. The department recommends that, where possible, students elect additional science courses in support of the
major; Environmental Science 110, Mathematics 210, Physics 292, Biology 077, Geology 400, Computer Science 111, and a course in statistics such as Biology 385 or Psychology 206 are suggested.

## Bachelor of Science degree in Environmental Geology

The successful completion of Geology 108 or 110, 120, FSGeo 201, 250, one 300 -level course, $400,410,430,580$, and 600 and 610 or 620; Environmental Science 346, 347 or 410; Chemistry 110 and 120; Mathematics 160 and 170; Physics 101 or 112. The department recommends that, where possible, students elect additional science courses in support of the major: Environmental Science 110, 215, 315, Biology 077, Mathematics 210, Computer Science 111, Physics 102, Geology 420, and a course in statistics such as Biology 385 or Psychology 206.

## Bachelor of Arts degree

The successful completion of Geology 108 or 110, 120, FSGeo 201, 250, 580 , and 600 and 610 or 620; an additional three courses in Geology from 301 through 430; Environmental Science 110; Chemistry 110; Physics 065 or 101; and one of the following courses: Mathematics 159, Biology 385 or Psychology 206. The specific program of electives in Geology and the supporting sciences must be approved by the department at the beginning of the junior year. Modification of the above mentioned programs can be arranged with the approval of the department.

## The Minor

The Department of Geology requires the successful completion of Geology 108 or 110, 120, and any three courses from FSGeo 201, 250, $310,400,410,420$, and 430 for a minor program. Two of Geology 301, 302,303 or 304 may be substituted for one of the three courses with permission of the department. Geology courses from the Duke Marine Program may substitute for some courses with consent of the department. Students are urged to consult the department chairperson in planning a minor program in Geology.

## Off-Campus Study in Marine Geology

Students who are eligible (at least 3.0 GPA and approval of Director of International Programs and Services) can participate in our cooperative program with the Duke Marine Laboratory in Beaufort, North Carolina. Students receive Allegheny grades and credit for Geology major and minor requirements. Contact the Director of International Programs and Services in Reis Hall for more information on this program.

## 108 Environmental Geology

Application of geologic principles toward understanding Earth processes emphasizing interactions between humanity and the physical Earth. Designed as an introduction to geology, the course includes basic concepts of Earth materials (rocks and minerals), Earth structure, and surficial environments. Topics include water resources and contamination, land use planning, natural hazards such as earthquakes, volcanoes, landslides and floods, energy and economic resources, and environmental regulations and policies. Laboratory or field work, one period. May not be taken after successful completion of Geology 110.

## 110 Physical Geology

The study of Earth properties and the dynamics of geologic systems to provide a basic understanding of the resources, environments, and evolution of our planet. The course considers Earth materials, interior structure of the planet, Earth surface processes, landform development, environmental geology, and physical evolution of the Earth. Specific topics include minerals and rocks, plate tectonics, ocean basins, continents, river and groundwater systems, glaciers, volcanism and earthquakes. Laboratory or field work, one period. May not be taken after successful completion of Geology 108.

## 120 Earth History and Evolution

The study of Earth history and large-scale processes affecting our planet's evolution and present-day dynamics. Principles and techniques for system analysis are applied to the lithological, paleontological, and geochemical records to develop an understanding of atmosphere evolution, tectonic history, paleogeography, long-term environmental change, and biological evolution. Modern natural systems, laboratory projects involving rock suites and fossils, and models are used to demonstrate analytical approaches and aspects of Earth history.

Laboratory one period. Prerequisite: Geology 108 or 110. Students who have taken FSGeo201 prior to Fall 2006 may not take Geology 120.

## 250 Mineralogy and Petrology

Origin and composition of Earth's crustal systems. Mineralogy, chemistry, and textures of rocks are learned through hand sample and microscopic analysis. Includes basics of crystallography, optical properties of minerals, and use of the polarizing microscope. Emphasizes interpretation of igneous, metamorphic, and sedimentary rock associations in relation to tectonic settings. Laboratory, one period. May include a multi-day field trip. Prerequisite: Geology 108 or 110. Geology 120 is strongly recommended. Offered alternate years.

## 301-304 Topics in Geology

Lectures and seminar-style discussions on selected topics in geology. Central themes vary on an alternate-year basis. Study includes textbook readings, critical analysis of research articles, indoor laboratory demonstrations, and a five to seven day field-laboratory experience at the conclusion of the course. The field trip provides an unusual opportunity to observe and exercise science introduced earlier in the course. The courses (Geology 301, 302, 303, and 304) run for about one-half of the Spring Semester and are closed to students enrolled in Geology 580. Prerequisites: Geology 108 or 110, 120 (concurrent registration is acceptable), and permission of the instructor.

## 301 Coastal Processes and the Environment

An examination of geomorphology, sedimentology, and environmental problems of modern coastal zones with special emphasis upon physical processes of the environment. The crucial link between understanding modern process-response relationships and meaningful analysis of the rock record is demonstrated throughout the course. Field trip: Barrier Island coast of Georgia. Credit: Two semester hours.

## 302 Foreland Tectonics and Sedimentation

A central theme is crustal dynamics of orogenic belts, focusing upon the interrelationship between tectonics and sedimentation in modern and ancient foreland settings. Evolution of the modern Taiwan orogenic belt-foreland basin couple at the Eurasian-Philippine plate boundary is used as insight to understanding paleodynamics of our own Appalachian system. Field trip: Virginia/West Virginia. Credit: Two semester hours.

## 303 Ancient Depositional Environments and Present Environmental Geology

An examination of the dependency between ancient depositional systems and present environmental geologic concerns using the Appalachian Plateau (Kentucky region) as a case example. Initial focus is upon deltaic and carbonate sedimentary processes and their genetic link to tectonics, paleoclimate, and paleo-sea level. The distribution of resultant sedimentary strata is then linked to present landforms, environmental resources (coal, oil, and gas, groundwater), geohazards, engineering practices and land use. Field trip: Kentucky—ancient delta systems and karst terrain. Credit: Two semester hours.

## 304 Modern and Ancient Geologic Processes in the White Mountains

An exploration of the relationship between geologic processes and the plate tectonics model as recorded in the rock record of north-central New Hampshire. Students examine: (1) evidence of sedimentation, metamorphism, deformation and magmatism in Paleozoic and Mesozoic rocks; and (2) how these rocks can be used to interpret the tectonic history of the region. Dominant geologic processes of the more recent Cenozoic Era (glaciation, rock/land slides, and acid rain neutralization) are also examined and discussed. Mandatory course field trip: White Mountains, New Hamphire. Credit: Two semester hours.

## 310 Process Geomorphology

A study of the surface of the Earth, processes that modify it, and principles governing their operation. Included in the course is the study of processes and landforms associated with weathering, streams, glaciers, coasts, and climatic change and groundwater. Laboratories emphasize field investigations, map and aerial photograph interpretation, and physical and computer models. Laboratory or field trip, one period. Prerequisite: Geology 108 or 110.

## 330 Climate Change: Past \& Future

(also listed as Environmental Science 330)
An examination of climate change on Earth at a variety of scales and the implications of global climate change (both past and future) from a scientific perspective. The course is divided into two seven-week units. The first unit focuses on evidence in the geologic record that provides a history of climate change on Earth over the last 2 billion years. The second unit focuses on the record of changing atmospheric gas concentrations (e.g. greenhouse gases) during the last 150 years and examines the methods that scientists use to predict and address future climate change. A day-long field trip may be involved. Prerequisite: Geology 110 or 108 or Environmental Science 210.

## 400 Hydrogeology

Principles of groundwater flow and physical properties of aquifers. The course combines both theoretical and applied approaches to the study of groundwater. Topics include: well construction and installation, characterization of subsurface hydraulic properties, groundwater flow, and contaminant transport processes. Course may involve a multi-day field trip. Laboratory, field work, or recitation, one period. Prerequisites: Geology 108 or 110; Math 160.

## 410 Sedimentology and Sedimentary Petrology

Hydrodynamics of sediment movement, depositional products, and environmental systems as a basis for stratigraphic analysis. Also, detrital mineralogy and major sedimentary rock types in relation to basin type and tectonic setting. Laboratories include study of sedimentary structure sets from modern marine and variety of ancient environmental systems, some aspects of applied paleontology, petrographic analysis, and the field study of modern and ancient deposits. Laboratory, one period. Prerequisites: Geology 108 or 110, 120 or permission of the instructor.

## 420 Structural Geology

Rock deformation and tectonics of the Earth. Emphasizes geometric analysis and origin of secondary structures at microscopic-, outcrop-, and global-scales. Stress, strain, and material behavior are applied throughout the course. Topics include folding, fault systems, deformation mechanisms, kinematic analysis, interpretation of geologic maps and cross-sections, graphical and computer solutions of problems including the use of stereograms, and case studies of structural associations in mountain belts. Laboratory, one period. May include a multi-day field trip. Prerequisites: Geology 120 and FSGeo 201 (may be taken concurrently with Geology 120). Offered alternate years.

## 430 Geochemistry

An examination of the chemical character and behavior of the nearsurface environment. Students study analytical methods to characterize the chemistry of precipitation, surface/ground water, soils, and rocks. We examine the dominant chemical reactions between gas, liquid and solid phases on Earth and identify the products of these reactions. Course material is examined in the context of global geochemical cycling. Laboratory work, field work, or recitation, one period. Prerequisites: Chemistry 110 and 112 . Geology 250 is strongly recommended.

## 521 Internship: Environmental Geology with Moody and Associates

(also listed as Environmental Science 521)
Liaison: Professor O'Brien
The experience involves participation in conducting hydrogeologic investigations and the preparation of groundwater-resource reports. The student must contract for credit. Prerequisite: Declaration of minor or a major in geology and completion of Geology 310 and 400.

## 522 Internship: Environmental Education

(also listed as Environmental Science 522)
Liaison: Professor O'Brien
An internship in environmental education working with children and/ or adults at a local educational facility, such as the French Creek Outdoor Learning Center. This facility is a collaborative effort of the French Creek Project, three local school districts, the Crawford County Development Corporation, and Allegheny's College/Schools Collaborative; as a remediated Superfund site, the Outdoor Learning Center offers many unique opportunities for exploration and interpretation of local ecology and geology. The Center's mission is to promote one of Pennsylvania's premier streams while exploring the impacts of environmental cleanup and management. Interns at this or other environmental education sites participate in research, curriculum development, environmental education, public relations and office communications. Prerequisites: Environmental Science 110 and approval of the supervisor at the internship site.

## 523 Internship: Conservation Biology

The intern becomes familiar with the operation of a National Wildlife Refuge and participates in a research project related to wildlife management and conservation biology. In order to be eligible, the student must develop a project proposal in consultation with the liaison and refuge manager. Projects will normally involve field or interpretive projects that culminate in a project report, pamphlet or brochure that is submitted to both the liaison and refuge manager.

## 524 Internship: Meadville Area Water Authority (MAWA)

Liaison: Professor O'Brien
An internship with the local water authority to design and execute a project relating to water supply issues. Examples of potential projects include research on water consumption patterns on the campus or in the community; mapping of the water distribution system using a Geographic Information System (GIS); development of water conservation and education materials for adults and/or primary schoolchildren; creation of a web site for water customers; designing and implementing water conservation programs on the campus or in the community; economic analysis of water-supply operations. Prerequisites: Approval from liaison. Students who wish to work on technical aspects of ground water as a part of the internship must have completed Geology 400.

## 525 Environmental Consulting Internship: O'Brien and Gere, Inc.

Liaison: Professor Cole.
An internship in hydrogeology and environmental remediation. Interns participate in the collection and analysis of field data to understand environmental conditions, such as ground water flow and contaminant transport, for reports and presentations to clients and regulatory agencies. Safety training, typically including 40 -hour OSHA training, is part of the internship experience. Interns are expected to maintain a journal and to submit their journal and a final report on their experience to the liaison. The internship is typically taken during the summer
in the Philadelphia, PA area; compensation for living expenses is provided. Prerequisites: Declaration of major or minor in geology, and approval from liaison. Completion of Geology 400 is strongly recommended. Credit: Two semester hours.

## 580 Junior Seminar

Seminar discussions on selected topics in geology in preparation for the development of senior research topics. Students analyze the literature, write a paper requiring literature review and synthesis, present a seminar, and submit a tentative research proposal for the Senior Project. Required of all junior majors in geology. Includes a five- to six-day field trip.
590 Independent Study

## 600-620 Senior Research Project

The student investigates a topic of current research interest. The topic and its scope are determined by the student in consultation with the faculty. In some cases, the research done for the senior project is in collaboration with the faculty supervisor and is part of that person's ongoing professional research. Careful research technique, critical evaluation of data, depth of specialized knowledge, independence and originality are cultivated as the project develops. A written thesis and oral defense before a board of geology faculty are required. The Senior Project may span only one semester (Geology 600), earning four semester credit hours, or two separate semesters (Geology 610 and 620), totaling six semester hours of credit.

## 600 Senior Research Project I

The first semester of a two-semester research project. Students are evaluated on their proposals and presentations at the preliminary meeting, progress made during the semester, and presentation at the final meeting of the semester. Credit: Two or four semester hours. Prerequisite: Geology 580.

## 610 Senior Research Project II

The final semester of a two-semester research project. Students are evaluated on their continued research efforts, oral defenses and written theses. Credit: Two or four semester hours. Prerequisite: Geology 600.

## 620 Senior Research Project

Students are evaluated on their proposal and presentation at the beginning of the semester, research effort during the semester, and oral defense and written thesis at the end of the semester. The project must be completed during the semester of enrollment. Prerequisite: Geology 580.

## Sophomore Seminar

## FS GEO 201 Communication in a Discipline

## Field Geology

Applied principles and field methods in geology and environmental geology. Students are exposed to critical analysis and communication in the geosciences through field and laboratory projects involving topographic maps, aerial photographs, geologic maps, rock and soil properties, subsurface drilling and geophysical data, and computer applications. Geologic mapping and hazards, landfill siting, environmental pollution, and oil exploration issues provide context for the projects. Field work or laboratory, one period. May include a multi-day field trip. Prerequisite: Geology 108 or 110. May count toward a major or minor in Geology. Students who have taken Geology 230 prior to Fall 2006 may not take this section of FS Geo 201.

## German

## History

Professors Pinnow, Binnington, Forts, Haywood, Herrman, Lyons, Shapiro, Treckel, Wu

The study of history helps us to understand the differences and similarities between our own lives, thought, and habits and those of a variety of past and present cultures. It allows us to understand other people better through seeing them in their own contexts, and to understand ourselves through serious self-reflection. We treat history as an interpretive endeavor, investigating from various points of view the ways in which individuals and social groups have sought to order and understand their world across time. As a department, we strive to provide wisdom in particular historical fields, and to assist our students in the development of conceptual skills, critical analysis, research competence, writing fluency, and sophistication in the uses and abuses of knowledge.

## The Major

The major in History leads to the Bachelor of Arts degree and requires successful completion of 46 semester credit hours of coursework in History, distributed as follows:

## 1. One course (4 credit hours) in European History

To be chosen from History 101, 103, 105, 107, 109, 110, 151, 153, 155, $157,159,249,253,275,300,301,303,305,306,308,310,312,318$, 380.

## 2. One course (4 credit hours) in American History

To be chosen from History 162, 163, 255, 257, 259, 261, 263, 265, 267, $269,324,326,328,330,331,332,337,339,341,343,508$.

## 3. One course (4 credit hours) in non-Western History

To be chosen from History 113, 116, 117, 165, 167, 169, 271, 349, 353, 365, 366.

## 4. One Junior Seminar (4 credit hours)

To be chosen from History $551,553,555,556,558,560,562,563,565$, 571, 573, 577, 584, 585, 588.

## 5. One Senior Project (6 credit hours)

Which consists of History 600 and 610.
6. A minimum of at least four courses (16 credit hours) that, excluding Junior Seminars and Senior Projects, must be numbered 300 or above
Unclassified electives (not counting toward the requirement in European, American or non-Western history) include: 502, 504 and 506.

Religious Studies 142 "Early Islamic History" and 144 "Modern Islamic History" may be counted towards the History Major.

With the approval of the department, History 590 (Independent Study) may be counted toward the European, American or nonWestern requirement, depending on the subject studied. History 590 may also be counted as one of the courses meeting the 300 or above requirement, depending on the level of difficulty and the approach taken.

History majors are required to have a GPA of at least 2.0 in History at graduation. All courses presented for the major are normally taken on a letter-grade basis except for courses transferred in by incoming students and courses completed in "study away" programs.

A maximum of two transferred courses (eight credit hours) taken at institutions of higher learning or at secondary institutions through the Advanced Placement or International Baccalaureate programs may
normally be counted toward the major. As the History Department strongly encourages its students to participate in study abroad and other "study away" programs, it will apply a maximum degree of flexibility to insure that students receive necessary credits for their participation in such programs

For purposes of graduation, if a student completes more than the minimum number of courses required, the higher grade(s) will be counted in the calculation of the major grade point average, provided that the departmental distribution requirements are met.

Students must enroll in History 600 and History 610 in consecutive terms. Students may enroll in History 600 during the spring semester of their junior year and History 610 in the fall semester of their senior year, or they may enroll in History 600 during the fall semester and History 610 during the spring semester of their senior year. Students must pass History 600 before enrolling in History 610.

The History Department strongly encourages proficiency in a foreign language and enrollment in courses in the Department of Modern and Classical Languages. Language study is particularly valuable for students who are considering graduate studies in History.

## The Minor

Students who choose to minor in History are required to successfully complete a minimum of 20 credit hours of coursework in History. These must include a Junior Seminar and two additional courses (eight credit hours) at or above the 300 -level. Only one of two designated Religious Studies course (Religious Studies 142 and 144) may be counted towards the History Minor. A maximum of one transferred course completed at institutions of higher learning, including those hosting "study away" programs, may normally be counted toward the minor. Courses taken at secondary institutions, including Advanced Placement and International Baccalaureate courses, may not be counted toward the minor.

## Foundational Surveys:

## 101 The Greek World, 1184-323 BCE

A comprehensive survey of ancient Greek political, social, and cultural history based on the interpretations of primary sources, both literary and archaeological, from the Trojan War to the end of the Classical period. Topics include the historicity of the Homeric poems, the rise of
the Greek city-state and panhellenic consciousness, the constitutional history of Athens and Sparta, the Persian and Peloponnesian Wars, political participation in the Athenian democracy, reflections of contemporary history in drama (tragedy and comedy) and philosophy, and the rise of Alexander the Great.

## 103 The Roman World, 753 BCE-180 CE

A comprehensive survey of ancient Roman political, social, and cultural history based on the interpretation of primary sources, both literary and archaeological, from the foundation of the city to the height of the Empire. Topics include the Roman aristocratic moral code, Roman imperialism, Roman diplomatic interaction with the Hellenistic World, the decline and fall of the Roman Republic, the establishment of the Augustan principate, and the administration of the empire in the first and second centuries.
105 Europe in the Age of Popes and Princes, 476-1400 An introduction to the Medieval era of European history. This survey course covers the period from the fall of Rome to the 14th century. Among the topics considered are the role of the Roman Catholic Church, the development of the monarchical form of government, the institutions of feudalism and manorialism, the emergence of commerce, urban life, and the universities, the social, religious. and political calamities of the 14th century, and the rise and decline of traditional forms of authority in the West.
107 Europe in the Age of Recovery and Reformation, 1400-1648
An introduction to the Early Modern Era of European history. This survey course covers the period from the Renaissance to the Thirty Years War. Among the topics considered are the re-emergence of social, cultural, and political life following the calamities of the 14th century, the Protestant and Catholic Reformations, and the age of religious warfare in the 16th and 17th centuries.

## 109 Europe in the Age of Modernization and Revolution, 1648-1914

A survey of three centuries of European history, with focus on the ages of absolutism and enlightenment, the French Revolution and subsequent revolts, the evolution of liberal democracy, the industrial revolution and the development of a modern economy, and the emergence of nationalism and socialism.

## 110 Europe in the Age of Dictatorship and Democracy, 1914 - Present

An introduction to major problems in the social, cultural, and political history of Europe in the 20th century, from the disillusionment of World War I to the challenges of post-communism. Among the topics explored are the impact of total war on European civilization, Nazism and the rise of authoritarian regimes during the inter-war period, the significance of the Russian Revolution for Europe, decolonization and Europe's changing place in world affairs, the reconstruction of democracy after 1945, the division of Europe during the Cold War, and the future of the nation-state within a unified Europe.

## 113 The History of Modern East Asia, 1800 - Present

A survey of political, social, economic, and cultural trends in East Asia from 1800 to the present. The course focuses primarily upon China, Korea, and Japan and to a lesser degree Vietnam. After an introduction to the tenets of East Asian civilization, we explore the profound changes that occurred in all four states as interaction with Western nations increased in the nineteenth century. We then examine the political, economic, and military conflicts of the twentieth century and conclude
by focusing on the tremendous economic development that has shaped the region in more recent decades.

## 116 Colonial Latin America

An introduction to Latin American history from the pre-Columbian era to the independence period. Topics considered include the diversity and complexity of Latin American indigenous civilizations before the arrival of Europeans; the Spanish impetus for New World exploration and conquest; the military conquest of the Aztec and Incan Empires; and the political and religious institutions, socio-economic structure, racial and ethnic attitudes, and cultural underpinnings of Spanish colonialism. Particular attention is paid to the modern ramifications of Latin America's colonial past.

## 117 Modern Latin American History

An examination of 19th- and 20th-century Latin American struggles to create effective national, political, and economic systems in a postcolonial global context. Through particular attention to legacies from the colonial period, students explore how gender, racial, ethnic, and class differences undergird political and economic structures, and how this historical relationship contributes to recent characteristics of the region, including "underdevelopment," dictatorship, guerrilla warfare, narcotrafficking, democratization, and neo-liberal trade.

## National Surveys:

## 151 History of Medieval England, 1066-1485

A survey of English history from the Norman Conquest to the Wars of the Roses. Students consider the social and economic foundations of political and cultural events. Emphasis is given to the development of English political and religious institutions. Among the topics considered are the establishment and growth of the monarchical form of government, the origin and development of the representative institution of parliament, the successes and failures of medieval monarchs, the dynamic tensions between local feudal authority and the royal court, the Hundred Years War, and the Wars of the Roses.

## 153 History of Imperial Russia, 1682-1917

A survey of Russian intellectual, cultural, and political history from the reign of Peter the Great to the fall of the Romanov dynasty in the February Revolution of 1917. Problems considered include the strengths and weaknesses of autocracy, Russia's rise to prominence as a European power, the role of serfdom in Russia's development and underdevelopment, the formation of Russia as a multi-national empire, the politics and culture of the intelligentsia, and the internal dynamics which helped produce revolution at the beginning of the 20th century.

## 155 The Soviet Century, 1917 - Present

A survey of major problems in the history of Russia and the Soviet Union during the 20th century, from the promise of the October Revolution of 1917 to the uncertainties of post-Soviet life. Among the topics explored are the causes of the 1917 revolutions, the nature of Bolshevism, revolutionary culture and utopianism during the 1920s, Stalinism and the transformation of Soviet society, the idea of the Soviet Union as a multi-national polity, the Great Patriotic War against Nazism, de-Stalinization and Soviet culture, the reconstruction of the Soviet system under Mikhail Gorbachev, and the complex legacies of Soviet socialism.

## 157 History of Modern France, 1789 - Present

A survey of the major developments in French history beginning with
the French Revolution. The course focuses on the economic and social foundations established for modern France in the Revolutionary and Napoleonic era and its political, intellectual, and cultural life since 1789. It considers such topics as the causes and importance of the Revolution, Napoleon's career, the Revolutions of 1830 and 1848, the empire of Napoleon III, imperialism, socialism, industrialism, the impact of World War I, the Popular Front, Vichy and DeGaulle.

## 159 History of Modern Germany

An introduction to the historical, political, social and intellectual background of modern Germany. Typical discussion topics include the Congress of Vienna, the 1848 revolution, the first unification of 1871, the Weimar Republic, National Socialism, and the division of Germany after World War II. Special attention is paid to the unification process since 1989 and Germany's role in international politics. (Taught in Cologne, Germany.)

## 162 History of the United States to 1865

An examination of the forces that have shaped the experiences of the American people from the age of settlement through the Civil War.
The course focuses on relations between European settlers and Native Americans, the development of Anglo-American colonial society, the foundation of the new nation, the emerging industrial economy, the causes of sectionalism, and the crisis of the Civil War.

## 163 History of the United States, 1865 - Present

An exploration of the emergence of modern America, addressing the effects of immigration, industrialization, imperialism, war and social change on the development of the United States since the Civil War.

## 165 Pre-Modern China: Religion, Philosophy, and Society

An examination of pre-modern Chinese political and social history from 500 BCE to 1800 CE . This course focuses on the origin and transformation of the Chinese nation-state prior to its full-scale encounter with the West. Topics discussed may include: the origin of Chinese civilization, the formation of the nation-state, contending schools of philosophy and thought, the cycle of dynasties, the rise of pre-modern capitalism, women's experiences, Han and minority relations, religions, and secret societies.

## 167 Modern China, 1800-2000

An examination of the recent Chinese past. Topics discussed include: the last century of Qing rule, confrontation with Western nations, the Republican period, the warlords and the Nationalist and Communist movements in the early twentieth century, Japanese aggression, the communist state, the Cultural Revolution, and economic growth in the 1980s and 1990s.

## 169 The History of Mexico

A survey of the Mexican past from the Mayan and Aztec empires, through the Spanish conquest, the colonial era, Independence, the Revolution, and the late 20th century. Special attention is paid to migration history, environmental history and the history of culture.

## Themes in History:

## 249 The Mystery of Courage

An exploration of courage in historical context. Students consider what it means to be courageous. Topics discussed include the virtue of courage, its deficiency (cowardice), and its excess (recklessness), and the roles of nature and nurture in creating courage. Types of courage studied include valor, sacrifice, and resistance. Specific illustrations
include speaking truth to power, violent and non-violent forms of dissent, and social protest. Specific types include the warrior, the dissident, and the rescuer. Case studies may include: the Spartan paradigm, the Zealots of Masada, Thomas More, Henry David Thoreau, Marion van Binsbergen Pritchard, and Nelson Mandela.

## 253 Citizenship, Democracy, and the French Revolution

An introduction to the study of the French Revolution in which students are assigned and act out positions as leaders of major revolutionary factions. Role-playing begins as the newly-emerged National Assembly struggles to create a Constitution amidst internal chaos and threats of foreign invasion. Questions considered include: will the king be permitted to retain a semblance of power; can the Assembly contain the radical demands of "the People;" will Catholic priests obey the new revolutionary government or the dictates of the Pope; can the revolutionaries create a stable democratic regime, or was the violence and bloodshed of the Reign of Terror inevitable?

## 255 African-American History to 1865

A survey of the history of African-Americans from the earliest appearance of Africans in colonial North America to the end of the Civil War. Students explore slavery, slave society and economy, slave culture, African Americans and politics, and the abolition of slavery.

## 257 African-American History since 1865

A survey of African-American history from the end of the Civil War to the present. Students explore topics such as Reconstruction, the rise and fall of Jim Crow, the Great Migration, the Harlem Renaissance, the Civil Rights Movement, Black Power, and Hip Hop. The lives of major figures in America's racial history are also examined.

## 259 The History of the American South

A topical survey of major historical issues in the history of the American South from first settlement to the present day. Students focus on race relations, including slavery, segregation, and civil rights; the formation and persistence of a regional identity; and the evolution of Southern society, economics, politics, and culture. Prerequisite: One course in U.S. history or permission of the instructor.

## 261 A Survey of American Women's History

A survey of the social, political, and economic role of women in American history from the colonial period to the present. Among the issues discussed are family as a force in American history, the impact of feminism on the major institutions of American life, the working lives of women, women's sexuality, the role of race and ethnicity in shaping women's lives, and the emergence of women on the political stage.

## 263 Biography and American History

An introduction to American History through the study of biographical and autobiographical literature. Students will read biographies and autobiographies of such persons as George Washington, Louisa May Alcott, Frederick Douglass and Alice James. Special attention is paid to the relationship of biography to history, and how historians interpret the lives of those who have lived before them. Open to first-year students and sophomores only.

## 265 Myth and Reality in the American Past

An investigation of the myths of American history, why they were created, and how they reflect American values. Some myths that might be explored are those associated with the noble savage, George Washington, the Plantation South, as well as the "Camelot" myths created about the Kennedy Administration. Students will formulate their own interpretations of people and events that have been the object of

America's mythological past. Open to first-year students and sophomores only.

## 267 Abraham Lincoln: The Man and the Myth

An examination of the life, career, and legacy of Abraham Lincoln, 16th President of the United States. Students explore Lincoln as a politician in his own lifetime and Lincoln as an increasingly legendary figure in the years after his assassination. Particular attention is paid to Lincoln's own words and the interpretations placed upon them by succeeding generations of Americans. Open to first-year students and sophomores only.

## 269 The Sixties in America

An examination of the significance and the impact of one of the most dramatic decades in American history. Particular attention is devoted to an elucidation of various "myths of the sixties" and to the role of the mass media in generating these myths. Open to first-year students and sophomores only.

## 271 Knights and Concubines: Facts, Fiction and Film

An examination of how knights and concubines serve as contrasting icons of Chinese culture. Through the use of fiction and film, this course shows how both groups have been idealized and reinterpreted in the nineteenth century and twentieth centuries to become something more exotic and mythical in both the Chinese and the American mind.

## Advanced Themes in History:

## 300 The Crusades

An examination of an age of Christian imperialism. Students investigate the motives and conduct of Europeans in the Age of the Crusades from the Council of Clermont in 1095, where Pope Urban II called for European rulers, nobles, and knights to wrest the Holy Land from the Muslims, to the fall of Acre, the last Christian stronghold in the Middle East in 1291. Among the topics considered are the explicit and implicit goals of the leadership of the Catholic Church and the European kingdoms, the organization and transportation of armies to fight for the Christian cause, and the rise and fall of the Christian kingdoms in the Middle East. Prerequisites: History 105 or permission of the instructor.

## 301 Chivalry

A study of the code of conduct for the Medieval European knight. Students investigate the principles and practices of the chivalric tradition during the period from the 12th to the 15th centuries. Among the topics considered are the social status of the knight, the techniques of knightly warfare, the tradition of courtly love, and the ideals and realities of knightly behavior. Consideration is given to transformation of the warrior of the Crusading era to the courtier of the age of the Renaissance. Prerequisites: History 105 or permission of the instructor.

## 303 The Calamitous 14th Century

The study of an age of unprecedented natural and human disasters in Europe. Students consider diverse topics including climate change; the Black Death; endemic warfare; the class revolts of the French Jacquerie, the English Peasants' Rebellion, and the Florentine revolt of the Ciompi; the collapse of European banking; the end of the Champagne Fairs; the constriction of trade; and the depopulation of both the cities and the countryside. Prerequisites: History 105 or permission of the instructor.

## 305 The Italian Renaissance

The age of experimentation. An examination of the principal developments of the period of the Renaissance. Among the topics considered are
the rise of capitalism, social change and dislocation, the Italian city-states, the cultural and intellectual revival, and Humanism. The course concentrates on Italy during the period 1300-1500. Prerequisites: History 105 or 107, or permission of the instructor.

## 306 Enlightenment and Absolutism

An examination of European social, cultural, intellectual, political and economic life from 1648 to the eve of the French Revolution. The rise of absolutist states, overseas expansion and competition for empires, the ideas of the Enlightenment, and Enlightened Despotism will be considered. Prerequisites: History 107 or 109 or 157 or 263 , or permission of the instructor.

## 308 The French Revolution and Napoleon

An examination of the origins, nature, and impact of the French Revolutionary and Napoleonic period. Among the topics considered are the birth of modern democratic political culture, the causes of revolutionary violence and terror, and the rise of modern nationalism. Prerequisites: History 109 or 157 or 253 or 306 , or permission of the instructor.

## 310 Europe at the Turn of the Century, 1880-1917

A consideration of the cultural, social, and political questions associated with the rise of modern life and the weakening of traditional forms of thought and association. Topics considered include the concepts of individualism and society, the ideology of progress, the cultural dimensions of science and technology, the place of the city and urban culture in European civilization, the politics of class, race, and gender, the importance of Empire for European self-identity, and the significance of World War I and the Russian Revolution as expressions of the conflict between tradition and modernity. Prerequisites: History 109 or 110, or permission of the instructor.

## 312 State and Society Under Communism and Fascism

A comparative investigation of the totalitarian regimes of Italy, Germany, and the Soviet Union during the period 1917-1945. Emphasis is given to the role of modern states in sculpting and mobilizing society. Topics include the creation of the new man and woman, the politics of reproduction and populations, the definition of citizenship and participation, the organization of politics and the economy, and the aesthetics of power. These themes are explored through the critical study of film, art and architecture, literature, and historical texts. Prerequisites: History 109 or 110 or 155 or 159 , or permission of the instructor.

## 318 Environmental Thought in Modern Europe

An examination of the origins of environmental and ecological consciousness in modern European society. Through a study of the works of leading social and political theorists and philosophers, this course traces the development of skepticism regarding the inherently beneficial nature of technological progress and scientific advance back to the dawn of the Industrial Age in late 18th-century Europe. Prerequisites: One course in European history, or permission of the instructor.

## 324 Life in Colonial America

An exploration of the development of Anglo-American society and culture in North America. The transfer of English ideas and institutions to the new world, the conflicts between native, white, and African cultures, the development of distinctive social, economic, and political differences in the colonies, and the emergence of an American identity are studied. Prerequisite: History 162 or permission of the instructor.

## 326 The American Revolutionary Era

An analysis of the evolution of the United States from the French and Indian War to the Constitutional Era. The course is topical in organization. Students explore the society, economy, politics and religion of the

Revolutionary Era. Special attention will be paid to the Revolutionary War itself, and the impact of that war on the daily lives of both women and men. The experience of native Americans and slaves in the Revolutionary Era is also studied. Prerequisite: History 152 or permission of the instructor.

## 328 Antebellum America

A topical analysis of the history of the antebellum United States from 1828 to 1861 . Students focus on issues of sectionalism and social reform, including the age of Andrew Jackson, slavery, the causes of the sectional conflict, and the evolution of American society, economics, politics, and culture. Prerequisite: one course in 19th-century U.S. history or permission of the instructor.

## 330 The Age of Industry in America

An examination of the transition of the United States from agrarianism to industrial world power (1876-1919). Topics may include the Gilded Age, industrialization, American imperialism, the rise of Jim Crow, urbanization, Women's Suffrage, and the Great War. Prerequisite: History 163 or permission of the instructor.

## 331 Problems in Nineteenth Century America

A topical study of major historical issues in the United States during the nineteenth century. Topics may include the Civil War in American memory; the formation of American nationalism; the emergence of reform movements, including abolition and emancipation, temperance, women's rights, and evangelism; the United States in the context of the Atlantic world; and the development of constitutionalism and law in the United States. Prerequisite: one course in 19th-century U.S. history or permission of the instructor.

## 332 Problems in Contemporary America

A thematic study of major historical issues in the United States since the Great War. Topics include the Jazz Age, the Great Depression, the Second World War, the Cold War, the Civil Rights Movement, Second Wave Feminism, the Gay Rights Movement, the Vietnam War, the Rise of the Religious Right, the Wars of the Persian Gulf, 9/11, and the Global War on Terror. Prerequisite: History 163 or permission of the instructor.

## 337 History of American Masculinity

An exploration of the meaning and construction of masculine identities in America from the founding of the Republic to the present. Male experiences, including social class, race and ethnicity, sexual orientation, and age, are investigated from a chronological and thematic perspective. The link between masculinity and the popularity of sports, pornography, and the American proclivity for violence are also examined. Prerequisites: History 162 or 163, or permission of the instructor.

## 339 Problems in the History of American Women

A thematic study of major issues in the history of American women. Topics may include: the experiences of women in the settlement process; the effects of war and revolution on women's lives; the impact of the women's rights and feminist movements on American women and men; how race, ethnicity, and class have shaped women's lives; the history of sexuality; the changing nature of women's roles within the family; and women and work in American history. Prerequisite: History 261 or permission of the instructor.

## 341 American Environmental History

A survey of the interaction between humans and the natural world in the United States since colonial times. Students are introduced to major themes, events, scholars, and methodologies in American environmental history. Topics, arranged chronologically and thematically, include the conquest and settlement of the future United States, industrializa-
tion, the U.S. conservation and environmental movements, and the place of nature and environmentalism in post World War II American Culture. Prerequisite: History 162 or 163, or permissions of the instructor.

## 343 The American Civil War and Reconstruction

An examination of the era of Civil War and Reconstruction in the United States, from 1840 to 1880 . Students examine a variety of civil and military issues, such as the causes of the war, strategy and tactics, technological change, the limits of individual dissent, and changes in the status of African Americans. In particular, students explore the two great debates of the antebellum period: one concerning slavery and the other concerning the power of the federal government. Prerequisite: One course in U.S. history or permission of the instructor.
349 Class and Statecraft in Ancient China, 1046-256 BCE
A study of pre-Qin (1046-256 BCE) Chinese ideas, institutions, and social change. Students explore the most turbulent period in Chinese history, examining the founding and crumbling of Chinese centralized feudalism, diplomacy and warfare among the rival feudal states, the slavery system, the rise of the warrior-scholar class, and the formation of the various schools of philosophy. Prerequisite: History 113 or 165 or 167, or permission of the instructor.

## 353 Women and Revolution in China

A study of Chinese women's emancipation from 1898 to 1989 as a historical process. Students examine the experiences of Chinese women, including their place within the patriarchal system, the rise of an emancipation movement, and their role as agents of change. Among the topics covered are the relationship between women's liberation and Chinese nationalism, family and marriage, the challenges for women under socialism and globalization, and feminist literature and film. Prerequisite: History 113 or 167 , or permission of the instructor.

## 365 Conquest!: Latin America 1492-1600

An analysis of the physical conquest of Latin America and an examination of the ensuing blend of Spanish and Indigenous cultures. Topics considered include Spain's assault on the Aztec, Inca, and Maya, Catholic efforts to convert Indigenous peoples, the rise of the Mestizo population, the role of women in the early colonial world, the effect of disease on the Native population, and creation of a "civil society" governed by Spanish crown. Prerequisite: One course in Latin American history, or permission of the instructor.

## 366 Dictators and Development in Latin America

An examination of twentieth-century Latin American dictatorships and the developmental ramifications of authoritarian rule. Subjects considered include dictators and the cult of personality, the search for economic development, leftist political struggles, the position of indigenous groups within Latin America, continuing violence and social problems, the Cold War and U.S. involvement in Latin America, and present-day efforts to come to grips with a totalitarian past or present. Countries addressed may include Argentina, Brazil, Chile, Colombia, Cuba, Guatemala, Nicaragua, and/or Peru. Prerequisite: One course in Latin American history, or permission of the instructor.

## 367 History of Political Crime and Political Justice

An examination of how various societies have dealt with political opposition throughout history. Why do some societies tolerate activities that others regard as crimes? Why do some societies treat "political criminals" relatively leniently while others do not? How far can a society extend the limits of tolerance and leniency and still survive? Prerequisite: One course in European history, or permission of the instructor.

## 380 Disease and Medicine in Modern History

An investigation of responses to disease in different historical periods, with an emphasis on Europe and the United States in the 19th and 20th centuries. The social and cultural influences on medicine and public health are a recurring theme. Among the topics explored are the definition of health and illness, epidemic and endemic diseases, the rise of professional and scientific medicine, therapeutics and theories of disease causation, public health and the individual, and the significance of class, gender, and race as factors shaping the experience of disease. Prerequisite: Prerequisite: One course in US or European history, or permission of the instructor.

## Internships

## 502 Internship with Special Collections, Pelletier Library

Liaisons: History Chair and Director of Special Collections
Inventorying, scanning, cataloging and indexing papers, letters, documents and artifacts in Special Collections under the supervision of the Library staff. Creating web sites for these collections is an important part of the intern's responsibilities. Interns also work on the College's Ida Tarbell Web Site and participate in the preservation of materials in that collection. Prerequisites: Permission of the History Department Chair and the Director of Special Collections.

## 504 Internship with the Historian of the College

Liaisons: History Chair and College Historian
Researching the history of Allegheny College as well as planning and installing displays of the College's history on campus. Interns work closely with the Historian of the College, the College's Heritage Committee, the staff of the Pelletier Library's Special Collections, and local historical societies. Prerequisites: Permission of the History Department Chair and the Historian of the College.

## 506 Internship with the Archivist, Pelletier Library

Liaisons: History Chair and College Archivist
The design and execution of interviews as part of an ongoing oral history project of Allegheny College under the supervision of the College
Archivist. The intern's responsibilities may include transcribing interviews and handwritten material in the collection, inventorying and describing collection materials, and conducting research for administrative histories and for exhibit preparation. Interns may design and install exhibits of College history within the library and elsewhere on campus. Prerequisites: Permission of History Department Chair and the College Archivist.

## 508 History Under Sail: The Flagship Niagara and the Great Lakes

An experiential learning internship on the maritime history of the Great Lakes. The Flagship Niagara is a replica of the square rigged sailing warship which fought at the 1813 Battle of Lake Erie. In a three week program, students experience life during the Age of Sail, gaining lessons in seamanship, history, and citizenship. Students acquire a deeper understanding of maritime history and seafaring culture through living similar challenges and conditions faced by seafarers of the past. This internship is offered in partnership with a consortium of local colleges and the Erie Maritime Museum. Prerequisite: Permission of the instructor.

## Junior Seminars

## 551 Orality and Literacy in Ancient Greece

An examination of speech and writing as media of communication in
ancient Greece, from the time of Homer into the fourth century BC. The course focuses on the development of writing in the Greek world and the effect of this development on Greek culture and society. Among the topics studied are the oral performance of poetry, the function of writing in the Athenian democracy, and the importance of rhetoric for the intellectual life of the classical period. Prerequisites: History 101 or 103, and permission of the instructor.

## 553 Class struggle in Ancient Greece

An exploration of class conflict in ancient Greece from the time of Homer to the fourth century BC. The course considers the representation of the lower classes in archaeological and literary sources and the influence of the lower classes on Greek politics and society. Among the topics studied are ancient slavery, class strife and the development of the Greek polis, and the relations between the masses and the elite in the Athenian democracy. Prerequisites: History 101 or 103, and permission of the instructor.

## 555 The Wars of the Roses

A study of the struggle for the English throne of the 15th century. Students examine the thirty-year dynastic conflict between the rival Yorkist and Lancastrian branches of the Plantagenet family. Among the topics considered are the development of the practices of domestic warfare, the growth and diminution of royal authority as a consequence of the dispute, the divided and ever-changing loyalties of the nobility, and the long-term consequences for English society and government. Prerequisites: History 151 and permission of the instructor.

## 556 The French Revolution

An examination of various historical problems raised by the French Revolution. Among the topics considered are the struggle between revolutionary moderates and radicals, the role of public opinion, the question of revolutionary violence and terror, and the impact of international war. Prerequisite: History 109 or 157 or 253 or 306 or 308, and permission of the instructor.

## 558 Revolutionary Russia, 1900-1921

A critical study of the major historical interpretations and problems regarding the fall of the Russian autocracy and the rise of the Soviet Union, the world's first communist regime. Analysis focuses on scholarly works, primary sources, memoir accounts, art, literature and film to understand how the Russian Revolution has been portrayed variously in historical memory. Among the major themes explored are the role of personality, accident, and political parties, the influence of ideology on individual and government action, social polarization and the possibility of evolutionary change in Russia, and the creation of historical myth under the Bolsheviks. Prerequisite: History 153 or 155 or 253 or 312, and permission of the instructor.

## 560 Witchcraft in Colonial America

This seminar investigates the social, political, economic, religious, and literary interpretations of the Salem Village witchcraft trials of 17thcentury Massachusetts Bay Colony. The culture of Puritanism is explored. Students are required to formulate their own interpretation of the events studied. Prerequisites: History 324 and permission of the instructor.

## 562 The Family in American History

The evolution of the family as a social, economic, and political institution is explored from the colonial period of American history to the present. The impact of wars, industrialization, immigration, and feminism on the family is analyzed. Special attention is paid to the methodology of family history and the relationship of family history to other forms of history and historical writing. Prerequisites: History 162 or 163, and permission of the instructor.

## 563 The Atlantic World

A chronological and thematic study of the major issues in the development of the Atlantic world beginning with the voyages of Christopher Columbus and ending with the emancipation of the last African slaves in 19th-century Brazil. Students examine the development of trade, commerce, and the cultural and social exchange between Europe, Africa, and the Americas. Issues discussed include colonialism, mercantilism, the Columbian Exchange, the development of Indian and African slavery, the process of emancipation, and the role of the New World environment in shaping the development of the various cultures in the Americas. Prerequisites: History 162 or 163 or 255, and permission of the instructor.

## 565 The Second American Revolution: America in Civil War and Reconstruction

An historical examination of the period of the American Civil War and Reconstruction from 1846 to 1895 . Students explore the sectional development of politics, the changing sphere of liberty, the abolition of slavery and the developing meaning of freedom, the nature of military combat during this period, the relationship between the federal and state governments, and the relationship between politics and the Constitution. Prerequisites: History 259 or 267 or 328 or 343 , and permission of the instructor.

## 571 The Civil Rights Movement

An exploration of African American freedom movements in the United States in the post-1945 era. Through a focus on the efforts of African Americans and their allies to overcome persistent white supremacy and achieve racial justice in the United States, students explore the legal, historical, economic, and social origins of the civil rights movement, as well as its impact on American culture, politics, and international relations. Prerequisites: History 162 or 163 or 257 , and permission of the instructor.

## 573 Mao's Cultural Revolution

A critical study of the Chinese Cultural Revolution (1966-1976) as sociopolitical movement, collective memory, and historical trauma. The course provides an historical perspective to analyze the origin, process, and aftermath of the Cultural Revolution as both the continuation and the culmination of modern Chinese political crisis. Subjects considered include the rise of the cult of personality, anti-traditionalism, antiintellectualism, xenophobia, student activism, changing gender identity, and state-sanctioned political violence. Prerequisites: History 167 and permission of the instructor.

## 577 Inventing Mexico: Nationalism and National Identity in a Global Context

An investigation of the cultural and intellectual consequences of the Mexican Revolution. Arguments over the rights and responsi-bilities of citizens, proper and improper ways to represent Mexi-cans in art and mass media, patriotism, public education and- above all-the definition of "Mexican," have dominated political discourse and shaped daily life for Mexicans since 1920. This seminar examines some of the books, films, paintings and other artifacts that have played a part in such arguments, and studies historians' interpretations of the questions of national identity and nationalism in the 20th century. Prerequisites: One course in Latin American history, and permission of instructor.

## 584 Doctors and Deviants

An historical study of social deviance in medical thought and practice with a concentration on the United States and Europe in the 19th and 20th centuries. A close reading of scholarly writing and primary evidence is emphasized to explore the sources of medicine's power in modern society and culture. Among the historical problems examined
are scientific theories of human behavior, the delineation of the normal and pathological, the intersection of medicine and law, the statistical "discovery" of social illness, eugenics and the concept of degeneration, and the role of class, gender and race in the definition of the deviant individual. These themes are investigated through such problems as suicide, criminality, juvenile delinquency, prostitution, homosexuality and madness. Prerequisite: History 310 or 380 , and permission of the instructor.

## 585 Great Trials in History

A consideration of selected "show" trials in Western history as a means of investigating the phenomena of law and justice, political crime and political justice, and the relationship between the individual and the state. Through an examination of such diverse material as primary sources, secondary accounts, imaginative literature, and films, the seminar focuses on the institution of the trial as a political and philosophical event. Examples of types of trials to be considered include those of Socrates, Jesus, Thomas More, Anne Boleyn, Galileo, Charles I, Louis XVI, Tom Paine, Sacco and Vanzetti, and John Scopes. Prerequisite: Permission of the instructor.

## 588 Nations and Nationalisms: The Historical Development of the Nation-State

An historical examination of the creation and persistence of nations and nationalisms in international perspective. Students explore the development of nations in Europe and North America from the seventeenth century to the present day, including issues of blood, language, history, race and ethnicity, politics, and territory. Prerequisite: permission of the instructor
590 Independent Study
600 Senior Project I
A mandatory preparatory seminar for History 610. Students write a project proposal, develop an extensive bibliography, create a project outline, and present their research. The fundamentals of historical research and writing are also reviewed. Taken on a letter-grade basis. Credit: Two semester hours.

## 610 Senior Project II

A continuation of History 600. The student completes the research and writing and gives an oral defense of the Senior Project.

## Sophomore Seminars

## FS HIS 201 Communication in a Discipline

Reconstructing the Past: The Battle of Poitiers (1356) and the Hundred Years War
An introduction to writing and speaking in the discipline of history. Students learn the methods of historical inquiry by participating in an exercise in historical reconstruction and interpretation of the Battle of Poitiers, one of the decisive engagements between the English and the French in the dynastic struggle for the French throne. Among the disputed questions considered are the exact location of the encounter, the disposition of troops, the identity of the participants, the role and nature of the leadership, the effectiveness of weaponry, the character of chivalric tradition, and the tactics of medieval warfare.

## FS HIS 201 Communication in a Discipline

## Nationalism and the American Civil War

An introduction to writing and speaking in the discipline of history, focusing on the development of nationalism in the Union and Confederacy during the American Civil War. Students briefly explore
the pre-war development of American nationalism and examine in depth the development of nationalist sentiments in the North and South during the war. Among the issues discussed are slavery and emancipation, liberty and war, and the roles of dissent in wartime.

## FS HIS $201 \quad$ Communication in a Discipline

Transitional Justic in the Contemporary World
An introduction to writing and speaking in the discipline of history. Students examine the various ways in which newly-emergent democracies have dealt since World War II with the horrors perpetrated by the
regimes that they replaced. Should priority be given to punishing those who have committed terrible crimes or to seeking political stability and social reconciliation? While focusing on current debates between proponents of retributive justice and advocates of restorative justice, this course examines how disgraced fallen regimes have been treated in a variety of historical contexts, from the Nuremburg War Crimes Tribunal to the demise of apartheid in South Africa.

## Interdisciplinary Programs

Interdisciplinary minors provide students with the opportunity to pursue an integrative approach to their education and to identify and prepare themselves effectively for career paths that lie beyond the boundaries of traditional majors and minors. The goal of the Interdisciplinary Programs is that the student not only be able to demonstrate a grounding in a particular discipline, but also to enter into larger conversations about the complex interactions among diverse fields of knowledge and expertise. Interdisciplinary approaches enable students to relate their more immediate academic concerns to a challenging multifaceted information society and therefore to address issues of citizenship and activism.

## The Programs

In the best liberal arts tradition, interdisciplinary minors such as those listed below feature "synthesis" courses, generally taken during the junior year. These courses employ a wide range of theories and methods to connect disciplines as diverse as dance, art, literature, political science, and medicine. They encourage students to think more systematically and selfconsciously about how to bring together different aspects of their overall course of study. Seminars like "Cultural Construction of Sexuality," "The Ethics and Dynamics of Social Action," and "Envisioning Environmental Futures" lead students to question underlying assumptions about the world while gaining perspective on the various modes of thought that constitute the Humanities, Social Sciences, and Natural Sciences. By combining these programs with their major fields of study, students can prepare themselves for a broader future. A case in point is the Science, Health, and Society Program, which might lead to a career in medical ethics, health care law, or medical journalism.
Students may enlist interdisciplinary minors to complete the minor requirement for graduation as long as at least 12 credits of coursework used to complete the minor lie outside the division of their major and as long as no course is counted for both the major and the minor. All courses listed as INTDS are considered outside all three divisions and therefore cannot be used to fulfill the distribution requirement.

Two interdisciplinary programs not listed here are Dance Studies and Women's Studies which have their own sections in the catalogue.

## American Studies

Minor Coordinator: Professor Quinn
An interdisciplinary analysis of American culture requiring courses in history, literature, and theory, as well as the synthesis course INTDS 552 "Wilderness and Mind: Culture and Society in the Hudson River Valley, 1790-1860" Additional courses for the minor may be taken from a variety of fields (including Art, Religion, Economics, and Political Science). Students without exception must declare this minor no later than the end of the first semester of their junior year. Because this minor offers a wide array of options and possibilities, students need to specify which courses they will take both before and after INTDS 552, in
consultation with the coordinator of the minor, Professor Miller, and produce a statement describing their plan of study. The minor is administered by a committee whose membership also includes Professors Quinn and Slote. 24 credits required.

## Art and the Environment

Minor Coordinator: Professor Geffen
An interdisciplinary minor in which the student creatively confronts the global environmental crisis. Students combine knowledge obtained about the physical and social environment with experience acquired from immersion in various artistic and creative endeavors to imagine and construct possible solutions to contemporary environmental
problems. Environmental Science 110 "Introduction to Environmental Science" and Art 156 "Introduction to Studio Art: Art and the
Environment" must be taken at the outset. Additional courses are to be chosen from each of three categories, including Scientific Perspectives, Social Issues and Creative Arts. The synthesis course, INTDS 301
"Envisioning Environmental Futures," must be taken as the culminating experience. 24 credits required.

## Asian Studies

Minor Coordinator: Professor Wesoky
An interdisciplinary minor introducing diverse perspectives regarding Asian society. The minor includes courses in artistic forms, historical contexts, economic structures, religious practices, and political systems. Through this minor, students will acquire knowledge about the differences and similarities among Asian cultures as well as between Asia and the "West." Students must enroll in INTDS 220 "Asian Studies," the topic of which will vary from year to year and could emphasize environmental, political, literary, or religious aspects. In addition, at least two courses must be taken in the Humanities Division and two from the Social Science Division from a prescribed list. Details should be worked out in consultation with the coordinator of the minor. 20 credits required.

## Black Studies

Minor Coordinator: Professor Laura Quinn
An exploration of the American and/or global experience of black people and of race as an historical category and construct. Courses for the minor are to be chosen from a prescribed list, including courses in the departments of History, Music, Political Science, English, Economics, Modern Languages, and Philosophy and Religious Studies. At least three of the courses must come from two or more departments outside of the student's major field and at least two of the courses must be 300 level or higher. INTDS 210 "Introduction to Black Studies" is required for students enrolling as of Fall, 2005. Because course offerings will vary from year to year, students are required to submit a schedule/plan of study with one of the minor coordinators at the time of declaration. The minor is administered by a committee whose membership also includes Professors Ben Slote, Bill Bywater, and David Miller. 20 credits required.

## Chinese Studies

Minor Coordinator: Professor Wesoky
An interdisciplinary minor examing the language, culture, politics, and history of China. Courses include Chinese language, Religious Studies, History, and Political Science. Through this minor, students will acquire an in-depth understanding of Chinese language as well as its historical, social, and political contexts. 20-24 credits required.
Requirements: This minor may be counted toward either the Humanities or the Social Sciences divisional requirements.
I. At least 12 credits in the Humanities Division (listed below), including at least eight credits in Chinese language, either on campus or at an Allegheny-approved study abroad program.
II. At least one course in Chinese language must be at the 200-level or above.
III. At least 8 credits in the Social Sciences (listed below). If a student wants the minor to count toward Social Science divisional requirements, she/he must take 12 credits in the Social Sciences.
IV. At least one course must be taken at the 300-level or above.
V. INTDS 220, if selected, can count as an elective course in the minor, but not toward divisional requirements.
Courses: For purposes of fulfilling requirements toward the minor,
students may count only one of the courses listed below in italics.
Humanities:
Art 223 Far Eastern Art
Chinese 110 Beginning Chinese I
Chinese 120 Beginning Chinese II
Chinese 215 Intermediate Chinese
Chinese 225 Chinese Readings, Films, and Composition
Chinese 325 Contemporary Chinese Cinema (in Engish)
Chinese 590 Independent Study in Chinese
Religious Studies 160 Buddhism
Religious Studies 170 Religions of China
Social Science:
History 165 Pre-Modern China
History 271 Knights and Concubines
EXL 594 Travel Seminar: Vanishing China, Emerging China
History 113 The History of Modern East Asia, 1800-Present
History 167 Modern China, 1800-2000
History 353 Women and Revolution in China through Fiction and Film
History 573 Mao's Cultural Revolution
Political Science 336 Politics and Culture in the Asia-Pacific
Political Science 228 Government and Politics of China
Interdisciplinary Studies:
Interdisciplinary Studies 220 Asian Studies

## Classical Studies

Minor Coordinator: Professor Herrman
The Classical Studies minor provides a broad-based introduction to ancient Greek and Roman civilization which includes components of Latin language study, history and cultural studies. Students gain familiarity with diverse aspects of the ancient world and learn how to formulate original arguments based on primary sources, material and literary. The minor requires at least 20 credits, and counts as either a humanities or social sciences minor depending upon the course selection. Social science minors must take three history courses and the minor will consist of 24 credits in total. Course requirements for the Classical Studies minor: Take at least eight credits of Latin language courses. Take at least one of the following history survey courses: History 260: Greek History; History 262: Roman History. Take one advanced couse ( 300 -level or above) in Greek or Roman history. Take at least one of the following elective courses: Art 110: Survey of Art History I; Art 211: Art of the Ancient World; Philosophy 260: Ancient Greek Philosophy; Religious Studies 117: Religion in the Ancient Greco-Roman World; Religious Studies 240: History of Christianity I. Other appropriate courses may be included in the minor with the permission of the minor coordinator.

## French Studies

Minor Coordinator: Professor Reeck
A study of the political, social, intellectual, and artistic manifestations of French civilization and culture. Courses to be drawn from a list including the Art, Political Science and History departments. The minor is administered by the French section of the Department of Modern Languages. 20 credits required as well as proficiency in French at the 300 -level.

## German Studies

Minor Coordinator: Professor J. Richter
A study of the political, social, intellectual, and artistic manifestations of German culture and civilization. Courses to be drawn from a list including the Art, Political Science and History departments. The minor
is administered by the German section of the Department of Modern Languages. 20 credits required (including two courses in German).

## Latin American and Caribbean Studies

Minor Coordinator: Professor Haywood
A study of Latin America and the Caribbean that combines courses in the humanities, social sciences, and languages. The minor requires 24 credits of coursework with at least 12 of the 24 credits taken in the graduation division of choice. In addition, in order to provide students a comparative view of the region through discipline-specific lenses, the 24 credits must be completed in at least three departments. The minor is administered by the Latin American and Caribbean Studies steering committee. 24 credits required.
Requirements:
I. Social Science Track:

12 credits from the Social Science Division (a minimum of two
departments; and two courses taken at or above the 300-level):
Political Science 242, 261, 332, 584
History 116, 117, 169, 365, 366, 577
8 credits from the Humanities Division:
Spanish 110, 120, 130, 215, 225, 305, 315, 335, 345, 365, 375, 385, 425, 480, 485
Courses from study abroad and other departments are granted divisional status with approval of the minor committee.
II. Humanities Track

12 credits from the Humanities Division (two courses taken at or above the 300-level):

Spanish 110, 120, 130, 215, 225, 305, 315, 335, 345, 365, 375, 385, 425, 480, 485
8 credits from the Social Science Division (a minimum of two departments):

Political Science 242, 261, 332, 584
History 116, 117, 169, 365, 366, 577
Courses from study abroad and other departments are granted divisional status with approval of the minor committee.

## Lesbian, Gay, Bisexual and Transgender Studies

Minor Coordinator: Professor Hellwarth
An interdisciplinary minor combining two core courses focused on lesbian, gay, bisexual and transgender issues, INTDS 207 "Human Sexual Identity," and INTDS 306 "Cultural Constructions of Sexuality," with courses that connect these issues to other cultural themes. Courses for the minor are to be chosen from a prescribed list, including courses in the departments of Communication Arts, English, History, Psychology and Women's Studies. The minor is coordinated by a committee that also includes Professors Bywater, Dickey, Rose, Sinha Roy, and Wurst. 20 credits required.

## Medieval and Renaissance Studies

Minor Coordinator: Professor Holland
An examination of the history, religion, art, and literature of the medieval and Renaissance periods, intended to foster a sympathetic understanding of an age very different from our own, as well as a better sense of the roots of the modern era. Courses to be chosen from a list including the English, History, Religious Studies, Philosophy and Art departments. The minor is administered by a committee whose membership also includes Professors Carr and
E. Palmer. 20 credits required.

## Science, Health and Society

Minor Coordinator: ProfessorPinnow
A minor investigating the interdisciplinary nature of health and health care. Students choose from one of two options, depending upon the division of their major. All students are required to take the capstone course, INTDS 550 "Science, Health, and Society" and complete 84 hours of a combination of shadowing and service related to health. 23 to 24 credits required.

This section contains the descriptions of those courses housed in Interdisciplinary Programs. Such courses are identified by an INTDS- acronym. These are non-departmental, non-divisional courses.

## INTDS 130 Language, Culture and Society of Costa Rica

A component of the SFS Costa Rica Semester Field Studies program with two distinct but integrated modules. The Spanish language module offers listening, oral and written practice of the Spanish language at beginner, intermediate, and advanced levels of proficiency. Students engage grammar and vocabulary exercises, tools required for their research projects. The socio-culture module helps students develop a more refined understanding of Costa Rican culture and the various communities with which they work. Students participate in lectures, field exercises, and other activities including a homestay. Credits: Two semester hours.

## INTDS 180 Topics in Medieval and Renaissance Studies

An introduction to Medieval and Renaissance Studies that focuses on a particular year of historical significance. Students study a closely-defined period in the past by examining texts and artwork in their historical, religious, and social context. This team-taught course adopts varied approaches to the study of the past based in the disciplines of Art, English, History, Philosophy, and Religious Studies. Possible focus years include 1381, 1492, and 1600. May be repeated for credit.

## INTDS 207 Human Sexual Identity

An examination of the psychological and biological factors that influence human sexual development and identity. Concepts and expressions of human sexuality are considered from psychological and anthropological perspectives. The biological (e.g. evolutionary, physiological, neurobiological, and genetic) influences on human sexual development and function will also be addressed.

## INTDS 210 Introduction to Black Studies

An overview of the field of Black Studies as the academic outgrowth of the Civil Rights and Black Power movements of the sixties and seventies. Students engage the interdisciplinarity of Black Studies by exploring the intersections among music, visual arts, theater, cinema, literature, history, religion, and politics in black culture and experience in the U.S. Controversies in the field, as well as the continuing impact of racism on black communities and strategic debates within anti-racist movements, are examined. Students experience the ways in which Black Studies provides a unique tool to enrich their understanding of race and racism in the world in which they live. Required for the Black Studies minor.

## INTDS 220 Asian Studies

An overview of some of the issues pertinent to encounters between Asia and the "West." In particular, the course examines the history and development of such encounters, from colonialistic notions of "Orientalism" to postcolonial critiques to contemporary visions of Asian-Americans. To this end, varying ideas of Asia as the "Other" are contrasted with ideas that Asia has had important influences on the "West." Specific topics vary from year to year, and could emphasize environmental, political, literary or religious aspects. Course materials might include classic texts, scholarly works, memoirs, fiction and films.

## INTDS 301 Envisioning Environmental Futures

A team-taught interdisciplinary exploration of solutions to contemporary environmental problems. Drawing from the literature on a specific environmental problem, students working in teams will analyze the problem from various vantage points, such as the artistic or literary, ethical, political and economic, scientific or spiritual and will evaluate the social and individual actions prescribed by one or more of their vantage points. Students will create a project-artistic or scientific-that demonstrates their command of course material and provokes discussion of and reflection about possible environmental solutions. Instructors and topics will vary. Prerequisite: Completion of the other course work for the "Art and the Environment" minor or permission of the instructor.
INTDS 306 A Cultural and Evolutionary History of Sexuality
An examination of sexuality from evolutionary, historical, and cultural perspectives. This discussion-based class takes an interdisciplinary approach to understanding the biological and cultural bases of human sexuality, sexual identities, and sexual practices. Topics include homosexuality, bisexuality, intersexuality, transgender and transsexuality, heterosexuality, female orgasm, and adultery.

## INTDS 310 The Neuroscience of Music Comprehension

An exploration of various processes employed in the comprehension and appreciation of music from an interdisciplinary perspective using various methods. Theoretical perspectives to be examined include a traditional music appreciation perspective, a psychological/perceptual perspective, and a neuropsychological perspective. The music appreciation perspective will emphasize the identification/recognition of various aspects of music such as rhythm, harmony, and theme in music composition, performance and listening. The perceptual aspects of music comprehension will be explored with classroom and laboratory demonstrations. Neural processing theories will be explored and demonstrated in the Music Department's new Niche Lab and through the use of electroencephalographic recordings from the brains of students as they listen to specific pieces of music presented in four different formats. The periodic sampling of brain activity during the presentation of specific musical pieces will be used to introduce neuropsychological concepts and theories about the importance of attention, hemispheric specialization and lateralization in music processing and memory in music comprehension.

## INTDS 311 Neuroscience and the Visual Arts

An interdisciplinary course that explores relationships between the visual arts and the nervous system. Contemporary neurological theories of visual perception that address phenomena such as color, depth, size, and movement are compared to elements used by visual artists (line, shape, color, space, perspective, motion, etc.). Experiments measure neurological activity stimulated by selected elements of visual form (line, shape, color). Other laboratory exercises measure viewers' brain activity to compare similarities and differences between artists and nonartists in the perception and creation of works of visual art. Information from these experiments may then be used in the creation of original works of visual art. Prerequisites: Neuroscience 110, Art 285, or Communication Arts 290.

## INTDS 312 Neuroscience of Dance and Movement

An interdisciplinary exploration of the various processes engaged during the experience and appreciation of dance practice and performance. This investigation focuses on neural processes underlying the psychosocial, kinesthetic, and expressive dimensions of dance. Neural processing theories are explored in both neuroscience laboratories and dance studios using electrophysiological and digital imagery analysis. Dances are experienced and created with neural processing theories in mind. Prerequisite: Permission of instructor.

## INTDS 313 Neuroscience of Language and Communication

An interdisciplinary examination of the relationships between brain function and language acquisition, comprehension, and production. Contemporary neurological and linguistic theories of language development, production, and processing are applied to topics such as neural processing of multiple languages, manual languages, and neural events associated with spoken and sung words. Sex and age influences on language acquisition, comprehension, and production are explored. The organization and operation of the brain's communication systems are studied through clinical neurology cases as well as laboratory experiments to measure neural activity associated with production and comprehension of speech. The brain activity of multiple-language speakers is compared to those with single-language competence. Laboratory experiences may also explore the neural events associated with second language acquisition.

## INTDS 315 History of Neuroscience

A historical examination of the major advances made in understanding the brain and nervous system. The impact of important technical and theoretical breakthroughs in neuroscience research is explored from a cultural, historical, ethical, and health-related perspective. These factors are also examined in relation to current and future directions in neuroscience research, such as brain imaging techniques and research investigating the mechanisms and treatment of neuro-degenerative diseases. Prerequisites: Neuroscience 110 or History 380.

## INTDS 320 Science and the Transformation of American Life

An investigation of the ways science has been used to achieve social and political goals through an exploration of illustrative case studies. The cases used each year will challenge the assumption of "scientific objectivity" while increasing awareness of both shared and divergent modes of thought in the humanities and sciences. Efforts will be made to place these cases within a broad historical and interdisciplinary context that helps students interrelate them. Case studies may include the medical category of neurasthenia and the interaction between male doctors and female patients; the emergence of scientific racism; the influence of Darwinism on literature, philosophy, and social thought; the social construction of nature in the Jeffersonian concept of natural history; and the transformation of American life through technology.

## INTDS 550 Seminar in Science, Health, and Society

Selected topics related to the understanding of the interdisciplinary nature of Health Care. This course serves as a capstone to the Science, Health and Society minor and consists of analysis and discussion of literature addressing issues of Health Care. Students are required to write research papers that cause them to reflect upon the service/ shadowing and course work completed to fulfill the minor. Prerequisites: Completion of the majority of the other coursework and 60 hours of servicel shadowing, or permission of the instructor. Note: this course is taught in the Fall semester in an every other year basis. Planned year: Fall 2011.

## INTDS 591 Group Study

Group study or research with faculty guidance. A group of students meets together with a faculty member on a regular basis to pursue a topic in depth. Students typically complete a set of common readings and assignments. Credit: One to four semester credit hours. Prerequisite: permission of instructor.

## INTDS 592 Independent Study: Teaching in the Elementary or Secondary Schools

A field experience in education during which students work with teachers and students in elementary or secondary schools. Relevant readings, as well as discussions with the instructor and the supervising teacher, provide the background and context for the fieldwork. Students are required to keep a reflective journal and to complete a culminating project based on their experiences in the classroom. Credit: Two to four semester credit hours. Prerequisite: Permission of the instructor.

# International Studies 

Professors Mattiace, Goldstein, Pinnow, Reeck (Steering Committee)

International Studies is an interdisciplinary, liberal arts program that endeavors to develop and relate those analytical skills most appropriate for the examination of increasingly complex interactions among nations. It draws upon the disciplines of economics, history, modern languages and political science. The principal goals of the major are: a) to develop understanding of the interrelationships of domestic and international politics and economic policies and of the implications of historical and sociological developments for those politics and policies; b) to provide students with tools and modes of analysis pertinent to these relationships; c) to help students think analytically in interrelated fields; and d) to help students understand different cultures.

Allegheny's long-established program in International Studies is designed to provide training for individuals who are considering careers in government service, international agencies, and international business and law. The program seeks to blend courses in the liberal arts, generally, with specific advanced courses in several relevant departments.

## The Major

The interdisciplinary social science major in International Studies leads to the Bachelor of Arts degree and requires the completion of a minimum of 54 semester credit hours. International Studies majors must present a GPA of at least 2.0 in all IS coursework at graduation. All courses submitted for the major, except transfer credits, must be taken on the letter-grade basis. Normally no more than 16 transfer credits are accepted toward the major, and none of these may substitute for the Senior Project. Only the most recent grade is considered for courses that have been repeated.

The major in International Studies requires the successful completion of both a seminar and a Senior Project. A minimum of four courses (16 credit hours), in addition to the seminar and Senior Project, must be taken at the 300 -level or above. In addition, students must complete a semester of overseas study approved by the International Studies Steering committee. Under normal circumstances, study abroad must be in a country where the focus language is spoken.

From the following, all majors must complete the required number of courses in each category. Double counting of courses between categories is not permitted.

1) In the area of Economics:

Economics 101
2) Theory (four courses, two from Economics, one each from Political Science and History):
a) Economic Theory (two courses; Note: students who wish to use Economics 450 or 452 as one of these two courses should use Economics 201 as the other one, to be taken first):

Economics 200 or 201 - Intermediate Microeconomic and Macroeconomic Theory (Economics 201 recommended) Economics 251 - International Economics Economics 256 - Economic Development Economics 261 - Comparative Economic Systems Economics 450 - International Banking and Finance Economics 452 International Trade
b) Political Theory (one course):

Political Science 120 - Comparative Government and Politics
Political Science 130 - World Politics
Political Science 245 - Politics of Third World Development
Political Science 450 - The Politics and Psychology of Persuasion and Prejudice
Political Science 453 - Deterrence Theory and Nuclear Defense
Political Science 457 - National Security Controversies Political Science 459 - Civil Wars
Political Science/Environmental Science 460-Global
Environmental Politics
c) Historical Interpretation (one course):

History 306 - Enlightenment and Absolutism
History 312 - State and Society under Communism and Fascism
History 318 - Environmental Thought in Modern Europe
History 367 - History of Political Crime and Political Justice History 366 - Dictators and Development in Latin America History 380 - Disease and Medicine in Modern History
3)

Transnational and Global Issues (two courses):
FSECON 201 - African Economic Development
Economics 231- Environmental Economics and Policy
Economics 251 - International Economics
Economics 256 - Economic Development
Economics 261 - Comparative Economic Systems
Economics 421-Strategic Environmental Management
Economics 450 - International Banking and Finance
Economics 452 - International Trade
Environmental Science 340 - World Geography
Environmental Science 350 - Ecological Economics
Environmental Science 420 - Understanding Third-World
Environmental Problems

Environmental Science 425 - Global Health Transitions
Environmental Science/Political Science 460 - Global Environmental Politics
Environmental Science 490 - Policy/Economics of Climate Change
History 380 - Disease and Medicine in Modern History
History 583 - The Atlantic World
History 588 - Nations and Nationalisms
FSPOL 201 - International Law and Organizations
Political Science 242 - Immigration and Citizenship
Political Science 245 - Politics of Third World Development
Political Science 251 - U.S. Foreign Policy
Political Science 261 - U.S.-Latin American Relations
Political Science 272 - Globalization and Gender
Political Science 325 - Rights in Comparative Perspective
Political Science 450 - Contemporary Policy Problems in International Relations
Political Science 453 - Deterrence Theory and Nuclear Defense
Political Science 457 - National Security Controversies
4) Four courses chosen from one of four areas of regional focus: East Asia, Europe, Latin America, or Middle East and Northern Africa
Courses may be selected from the following list, and they may include those taken while studying abroad on an I.S.-approved program. At least two of these courses must be taken in the social science division, and one of the two social science courses must be a history course.

## a) East Asia

Art 223 - Far Eastern Art
Chinese 325 - Contemporary Chinese Cinema (in English)
Chinese 326 - Contemporary Chinese Cinema
Chinese 335 - Chinese Literature in Translation
Chinese 336 - Chinese Literature
Economics 190 - The Economy of China
Environmental Studies 420 - Understanding Third
World Environmental Problems
History 113 - The History of Modern East Asia, 1900 -Present
History 165 - Pre-Modern China
History 167 - Modern China, 1800 - 2000
History 271 - Knights and Concubines: Facts, Fiction and Film
History 349 - Class and Statecraft in Ancient China, 1046256 BCE
History 353 - Women and Revolution in China
INTDS 220 - Asian Studies
Political Science 228 - Government and Politics of China
Political Science 336 - Politics and Culture in the Asia-Pacific
Religious Studies 160 - Buddhism
Religious Studies 165 - Zen Buddhism and Japanese Culture
Religious Studies 170 - Religions of China
b) Europe

Those selecting a regional focus in "b. Europe" may choose their four courses from any of those offered in subcategories i-iv.
i. Europe/General

Art 111 - Art History Survey II
Art 231 - Art of the Northern Renaissance
Art 241-19 ${ }^{\text {th }}$-Century European Art: From Academy to Atelier

Art 247 - $20^{\text {dh }}$-Century Art: Image of the Avant-Garde
Art 249 - Art Since 1945: The Road to Modernism
History 105 - Europe in the Age of Popes and Princes, 476-1400
History 107 - Europe in the Age of Recovery and Reformation, 1400-1648
History 109 - Europe in the Age of Modernization and Revolution, 1648-1914
History 110 - Europe in the Age of Dictatorship and Democracy, 1914-Present
History 151 - History of Medieval England, 1066-1485
History 155 - The Soviet Century, 1917-Present
History 310 - Europe at the Turn of the Century, 1880-1917
History 312 - State and Society under Communism and Fascism
History 318 - Environmental Thought in Modern Europe
Political Science 226 - Government and Politics of
Western Europe
Political Science 329 - Islam, Migration \& Race in Western Europe
Political Science 427 - The Politics of the European Union
ii. France

FS French 201 - Speaking of France today
French 330 - "The Empire Writes Back"
French 335 - War and Love: The Origins of French Literature
French 355 - From Ancien Régime to Revolution
French 365 - Romanticism, Realism, and Modernism
French 415 - Women in the World of Letters
French 425 - The Politics of Literature
History 224 - History of Modern France, 1789 - Present
History 306 - Enlightenment and Absolutism
History 308 - French Revolution and Napoleon
iii. Germany

Art 231- Art of the Northern Renaissance
Art 236 - German Art from the Middle Ages to Today
German 305 - Advanced German in a Cultural Context
German 325 - German Culture
German 360 - Topics in German Culture
History 217 - History of Modern Germany (taught in Cologne)
Political Science 327 - The Political System of Germany (taught in Cologne)
iv. Spain

Spanish 325 - Civilization and Culture of Spain
Spanish 355 - Special Topcs in Spanish Peninsular Culture
Spanish 415 - Golden Age Literature
Spanish 465-19 ${ }^{\text {th }}$ - and $20^{\text {th }}$-Century Spanish Literature
c) Latin America

Environmental Science 356 - Social and Political Systems of Costa Rica (taught in Costa Rica)
Environmental Studies 420 - Understanding Third
World Environmental Problems
History 116 - Colonial Latin America
History 117 - Modern Latin American History
History 169 - History of Mexico
History 365 - Conquest!: Latin America 1492 - 1600

History 366 - Dictators and Development in Latin America Political Science 261 - U.S.-Latin American Relations Political Science 332 - Government and Politics of Latin America
Spanish 335 - Spanish American Civilization I
Spanish 345 - Spanish American Civilization II
Spanish 365 - Special Topics in Latin American Culture
Spanish 375 - Latin American Short Story
Spanish 385 - Hispanic Cinemas (Latin America)
Spanish 425 - Latin American Women Writers
Spanish 480-20 ${ }^{\text {th }}$-Century Spanish American Literature
Spanish 485 - Hispanic Film, From Text to Screen (Latin America)
d) Middle East and Northern Africa

Environmental Science 340, World Regional Geography French 330, The Empire Writes Back
History 300, Crusades (counts toward the history course requirement for the major)
Political Science 232, Government and Politics of the Middle East
Political Science 355, The Arab-Israeli Conflict
Political Science 354, War and Peace in the Middle East
Political Science 459, Civil Wars
Religious Studies 140, Introduction to Islam
Religious Studies 147, Judaism
Religious Studies 215, Gender and Sexuality in the Islamic World
Religious Studies 229, The Rabbi's Bible
Religious Studies 270, Early Islamic History, 570-1725
(counts toward the history course requirement for the major)
Religious Studies 275, The Middle East in Film
Religious Studies 280, Modern Islamic History, 1725-
present (counts toward the history course requirement for the major)
Religious Studies 370, Islamic Ritual Practices
Religious Studies 380, Shi'ite Society and Thought

## 5) An approved seminar in the Departments of Economics, History or Political Science.

## Fall 2011 Seminars

Economics 582 - Topics in International Economics
History 556 - French Revolution
History 558 - Nations \& Nationalisms
Political Science 584 - Seminar in Comparative Politics (Latin America)

## Spring 2012 Seminars:

History 573 - Mao's Cultural Revolution
Political Science 586 - Seminar in Comparative Politics: Europe
6) A Senior Project (International Studies 600 and 610)

The Senior Project is a joint effort involving the Departments of Economics, History, Political Science, and Modern and Classical Languages. One quarter of the oral defense of the Senior Project will be conducted in the foreign language selected. The student will also
present to the Department of Modern and Classical Languages a 15page abstract of the Senior Project written in the foreign language selected. If Chinese is the foreign language and part of the senior project, the length of the abstract should be 8-10 pages (approximately $1,500+$ characters). If Arabic is the foreign language, students should consult with the faculty of the Modern and Classical Language Department for guidance on the length of the abstract and the oral component of the International Studies 610 defense.

## 600 Senior Project I

Preparation of a senior project proposal: a thesis statement; a description of the project with special attention to the balance of the economic, historical, and political science aspects; and bibliography including foreign language sources. May only be taken on a Credit/No Credit basis. Credit: Two semester hours.

## 610 Senior Project II

Completion of the senior project, foreign language abstract, and oral defense. Prerequisite: International Studies 600.
7) Facility in a modern foreign language at a level of skill acceptable to the Department of Modern and Classical Languages.
Students studying German, French or Spanish must complete three courses at or above the 300 -level in the language of focus. Language courses listed under the Area Studies category may be used to demonstrate this facility, which is also assessed through the use of the foreign language in the Senior Project and student performance in the Senior Project Oral Examination.

Students taking Chinese as the foreign language should consult with the Department of Modern and Classical Languages for guidelines concerning facility in Chinese.

Students majoring in IS: MENA must follow one of the two following tracks to demonstrate language facility:

1) Take two courses in a non-European language spoken in the MENA region (e.g., Arabic, Persian, Hebrew, or Turkish). Allegheny College supports the study of beginning-level Arabic through an agreement with Montana State University. The four additional courses must be taken in either French, German or Spanish.
2) Take four Arabic courses (we anticipate that two of these courses will be taken at Allegheny and two while studying abroad.)

If students opt to study four semesters of an European language, they are urged to consider which of the European languages fit their specific regional focus best. In all cases, students are encouraged to consult with the Modern \& Classical Languages Department faculty.

The members of the International Studies Steering Committee are Professor Goldstein of the Department of Economics, Professor Mattiace of the Department of Political Science, Professor Pinnow of the Department of History and Professor Reeck of the Department of Modern and Classical Languages. Professor Mattiace of the Department of Political Science serves as chairperson of the committee for 2011-12. Any exceptions or exemptions to the requirements for the major must be approved by the Chairperson.

## Latin

## Mathematics

Professors Lakins, Barry, Carswell, Clay, Ellers, Hollerman, Lakins, Leech, Lo Bello, Lundberg, Weir, Werner

The Department of Mathematics offers a wide range of courses designed to introduce students to major areas of mathematical thought, formal reasoning processes, general methods of problem solving, applications of mathematics to diverse areas, the history of mathematics, and the effective communication of mathematics. Our courses emphasize the activity of thinking with ideas, as opposed to learning content by rote memorization. They develop the analytical and reasoning skills that not only prepare students to be mathematicians, but also serve students well no matter what they do in life. We strive to give students an appreciation for the culture of mathematics as revealed through its history, the beauty of its ideas, and its particular way of knowing, which sets mathematics apart from all other disciplines.

All students new to Allegheny must take the Mathematics Placement Exam, unless exempted by taking an AP Calculus course in high school or by transferring an appropriate calculus course from another college or university. Students are strongly encouraged to begin their study of Mathematics as indicated by their performance on this placement exam, which is an on-line exam delivered in the summer prior to fall arrival. Those new students who are exempt from the placement exam should consult with a member of the mathematics department during the time announced in the orientation schedule before enrolling in any mathematics course.

## The Major

The major program in Mathematics leads to the Bachelor of Science degree and requires the completion of at least 43 semester hours of coursework numbered above Mathematics 160, including Mathematics 170, 210 (unless exempted through advanced placement), 205 (which should be completed by the end of the sophomore year), $320,325,340$, 585 and 620. FS MAT 201 may be counted toward the major in Mathematics. No course may be taken on a Credit/No Credit basis for the major program in Mathematics. Transfer students majoring in Mathematics must complete at least 24 semester hours of coursework at Allegheny.

Computer Science 230 (cross-listed at Math 310) or Computer Science 360 may be counted toward the major in Mathematics. A student who elects to include these courses in the Mathematics major program may not also count them within a major or minor program in Comnputer Science.

The student can prepare for several career areas in the mathematical sciences. Below is a list of the areas followed by courses recommended by the Mathematics Department in addition to the required courses for the major.

## Actuarial Mathematics

Mathematics 290, 345, 346, and 440, as well as coursework in Computer Science and mathematical economics.

## Applied Statistics

Mathematics 345, 346, and 365, and Computer Science courses in data structures, operating systems and computability.

## Computational and Applied Analysis

Mathematics 270, 290, 341, 380, 440, and strong work in the physical sciences.

## Operations Research

Mathematics 270, 345, 346, 360, 365, 380, 440, and some work in Computer Science, including the study of data structures.

## Pure Mathematics

(recommended for those who plan to do graduate study)
Mathematics 315, 330, 341, 350, 400, 425 and 440.

## Scientific Computing

Mathematics 270, 290, 380 and Computer Science courses in programming languages, data structures, parallel and vector processing, computer graphics, computer simulation and software design.

## Teaching (secondary)

Students interested in pursuing teacher education in Mathematics should consult with the liaison to teacher education early in their academic careers to ascertain the current requirements for certification. Be aware that specific content requirements vary from year to year and by graduate school. Courses often required are Math 205, 210, 220, 290, 320, 325, 330,345 , and 350 . Courses in computer science also are often required.

Students in cooperative programs who want to major in Mathematics must complete a minimum of 39 credit hours of coursework numbered above Mathematics 160 and meet all the requirements for a major, as described above, except for Mathematics 620. At least 28 of the 39 semester hours required must be taken at Allegheny. Students in cooperative engineering programs are required to take Mathematics 290 . Students in cooperative programs who want to minor in Mathematics must meet the requirements for a minor listed below.

Each Mathematics major, whether concentrating in applied mathematics or not, should be familiar with applications of mathematics to at least one other field. For this reason, the Department of Mathematics strongly recommends that majors pursue a sequence of three or more courses in at least one of the following departments: Biology, Chemistry, Computer Science, Economics, Geology or Physics.

Mathematics majors are required to have a GPA of at least 2.0
in Mathematics at graduation. All Mathematics courses taken at Allegheny having a number higher than 159 must be taken on a letter grade basis and are included in the calculation. In the case of repeated courses, only the most recent grade will be included.

Normally, the Department of Mathematics will only award the honor citation in Mathematics to students who have completed at least four courses in Mathematics numbered between 250 and 500 (including Computer Science 230 and 360); at least one course must be selected from among Mathematics 400, 425 and 440.

## The Minor

The minor in Mathematics requires at least 20 semester credit hours at the 170 level or higher. At least four semester hours must include a course numbered 300 or above. FS MAT 201 may be counted toward the minor in Mathematics. Computer Science 230 (cross-listed as Math 310) or Computer Scienne 360 may be counted toward the minor in Mathematics. A student who elects to include these courses in the Mathematics minor program may not also count them within a major or minor in Computer Science.

All Mathematics courses taken at Allegheny having a number higher than 159 must be taken on a letter grade basis and are included in the GPA calculation for the minor. In the case of repeated courses, only the most recent grade will be included.

## 110 Elementary Mathematical Modeling

An algebra-based elementary modeling course. Linear, polynomial, exponential, and logarithmic functions are studied from numerical, graphical, and analytical points of view. The emphasis is on modeling real-world problems and rates of change. May not be taken for credit if credit for any calculus course has already been received. Does not count toward a major or minor in mathematics.

## 135 Elementary School Mathematics

An examination from a college perspective of mathematical topics related to the elementary school curriculum with an emphasis on development of problem-solving strategies. Mathematical concepts, their history, and their connections to the real world are studied. The course is intended for students who are seeking certification for elementary school teaching. Prerequisite: Permission of the instructor.

## 157 Calculus I for Social/Life Sciences

An introduction to the differential calculus of algebraic, logarithmic, and exponential functions. The emphasis is on the concept of the derivative and applications of calculus to the life and social sciences. Precalculus topics are covered as needed. May not be taken for credit if credit for any calculus course has already been received. Does not count toward a major or minor in mathematics.

## 158 Calculus II for Social/Life Sciences

A continuation of the study of differential calculus begun in Math 157 and an introduction to integral calculus and the multivariate calculus involving algebraic, logarithmic, and exponential functions. In addition to further applications of the derivative, the concepts of the integral of a function of one variable and differentiation of multivariable functions are applied to the life and social sciences. Precalculus topics are covered as needed. May not be taken for credit if credit has been received for Math 160. Does not prepare students for Math 170, and does not count toward a major or minor in mathematics. Prerequisite: Completion of Mathematics 157 with a grade of "C" or better.

## 159 Precalculus

A study of the mathematical concepts which are a prerequisite to the study of calculus: functions, domains, ranges, graphs, equations, and inequalities. Specific functions include algebraic, exponential, logarithmic, and trigonometric functions. The purpose is only to prepare students to take Math 160, Calculus I. May not be taken for credit if credit for any calculus course has already been received. Does not count toward a major or minor in mathematics or toward distribution in the natural science division. Prerequisite: Permission of instructor is required.

## 160 Calculus I

A study of real numbers, functions, limits, continuity, differentiation, and integration. All entering students planning to enroll in this course must take the Mathematics Placement Examination. Prerequisite: Placement in the course based on examination performance. Students who have received credit for Mathematics 158 will not receive credit for Mathematics 160 . Students who begin in Mathematics 159 are strongly discouraged from attempting Mathematics 160 unless they have received a grade of " $C$ " or better in Mathematics 159. Four 50-minute lectures per week.

## 170 Calculus II

A study of the applications of the definite integral; logarithmic, exponential, and trigonometric functions; techniques of integration; sequences and series; and indeterminate forms. Students completing Mathematics 170 with less than a "C" grade must request permission of the instructor to enroll in subsequent courses in Mathematics. Prerequisite: Placement in the course based on consultation with the department chair or the completion of Mathematics 160 with the grade of " C " or better. Four 50-minute lectures per week.

## 205 Foundations of Mathematics

An introduction to concepts encountered in the study of abstract mathematics. Topics covered include logic, mathematical proofs, set theory, relations, functions, mathematical induction, and introductory number theory. The concepts of injectivity, surjectivity, and inverses are discussed as well as elementary computational tools such as the Division Algorithm and Euclid's algorithm for the greatest common divisor. Additional topics may include cardinality, combinatorics, graph theory, algebraic structure, the real number system, and concepts of mathematical analysis. It is recommended that a major complete this course before the end of the sophomore year. Prerequisite: Completion of Mathematics 160 with a grade of " C " or better and sophomore standing, or permission of instructor.

## 210 Calculus III: Multivariate Calculus

A study of two- and three-dimensional vectors, vector-valued functions, continuity and differentiation of functions of several variables, multiple integration, and line integrals. Prerequisite: Placement in the course based on consultation with the department chair or the completion of Mathematics 170 with a grade of "C" or better. Four 50-minute lectures per week.

## 220 The History of Mathematics

A survey of the progress of mathematics from ancient to modern times. Attention is given to the philosophy of mathematics and to the bearing of mathematics on other branches of knowledge. Prerequisite: Mathematics 210 or permission of instructor.

## 270 Mathematical Modeling

An examination of techniques for applying mathematical methods to real world problems. Emphasis is on analyzing the problem, constructing a suitable mathematical model, analyzing the model, transforming it
into a form suitable for computation, and verifying the results. Applications are chosen from several different areas. Prerequisite: Mathematics 170 or permission of instructor.

## 290 Ordinary Differential Equations

An examination of methods of solving ordinary differential equations with emphasis on the existence and uniqueness of solutions of first order equations and second order linear equations. Topics may include Laplace transforms, systems of linear differential equations, power series solutions, successive approximations, linear differential equations, and oscillation theory with applications to chemistry and physics. Prerequisite: Mathematics 210.

## 310 Theory of Computation and Formal Languages

## (also listed as Computer Science 230)

An introduction to the theories of finite-state machines, pushdown automata and Turing machines as well as the relation between automata and the formal languages they recognize. Students explore computational theory and its practical applications in lexical analysis and language parsing. Prerequisites: Computer Science 102 and Mathematics 205 or permission of instructor. Offered in alternate years.

## 315 Introduction to Mathematical Logic

An introduction to symbolic logic as a mathematical model of deductive thought. Topics covered include propositional logic, models, formal proofs, and the Completeness, Compactness, and Incompleteness Theorems. Additional topics from Computability theory or set theory may be included. Prerequisite: Mathematics 205 or permission of instructor.

## 320 Linear Algebra

A study of vector spaces, linear transformations, matrices, determinants, systems of linear equations, similarity, and characteristic values and vectors. This course may be applied toward the Mathematics requirement for a Computer Science major. Prerequisite: Mathematics 205 or 210.

## 325 Algebraic Structures I

An introduction to the notion of an algebraic structure concentrating on the simplest such structure, that of a group. Rings and fields are also discussed. Prerequisites: Mathematics 205 and 320, or permission of instructor.

## 330 Number Theory

A study of divisibility properties of integers, linear diophantine equations, the theory of congruencies, the Euler-Fermat Theorem, perfect numbers, elementary results on the distribution of prime numbers, quadratic residues and some non-linear Diophantine problems. Prerequisite: Mathematics 205 or permission of instructor.

## 340 Introduction to Analysis

An examination of the theory of calculus of a single variable. Topics include properties of the real numbers, topology of the real line, and a rigorous treatment of sequences, functions, limits, continuity, differentiation and integration. Prerequisites: Mathematics 205 and 210, or permission of instructor.

## 341 Functions of a Complex Variable

A study of differentiation and integration with complex variables, conformal representation, and the calculus of residues, with applications to geometry and physics. Prerequisites: Mathematics 205 and 210, or permission of instructor.

## 345 Probability and Statistical Inference I

A study of mathematical models, sample space probabilities, random variables, expectation, empirical and theoretical frequency distributions,
moment generating functions, sampling theory, correlation and regression. This course may be applied toward the Mathematics requirement for a major in Computer Science. Prerequisite: Mathematics 210.

## 346 Probability and Statistical Inference II

A continuation of Mathematics 345 treating the testing of hypotheses and goodness of fit, small sample techniques, statistical design, non-parametric methods and sequential analysis. Prerequisite: Mathematics 345.

## 350 Geometry

An introduction to modern geometry. Topics may be drawn from axiomatic, projective, affine or hyperbolic geometry. Related topics at the discretion of the instructor. Prerequisite: Mathematics 205.

## 360 Graph Theory

An introduction to the theory of undirected and directed finite graphs. Topics include the Konigsberg Bridge Problem, planar and non-planar graphs, the five-color theorem and the four-color theorem, Hamiltonian circuits, shortest path algorithms, and problems of network flow. This course may be applied toward the Mathematics requirement for a major in Computer Science. Prerequisite: Mathematics 205 or permission of instructor.

## 365 Combinatorics and Discrete Models

The study of topics from combinatorics and discrete mathematical models including the pigeonhole principle, permutations and combinations of finite sets and multisets, binomial and multinomial coefficients, the inclusion-exclusion principle, recurrence relations, and generating functions. This course may be applied toward the Mathematics requirement for a major in Computer Science. Prerequisite: Mathematics 205 or permission of instructor.

## 380 Optimization

A study of the theory and techniques of mathematical optimization with application to economics, scheduling problems, and other areas of interest to the class. Techniques may include linear, integer, and dynamic programming. This course may also be of interest to students majoring in Economics and Computer Science. Prerequisites: Mathematics 320 or permission of instructor.

## 400 Topology

A study of topological spaces and continuous maps, separation axioms, compactness, metric spaces, product spaces, connectedness and fixed point theorems. Proof techniques are emphasized. The course material ties together some ideas presented in the basic Mathematics courses. Prerequisite: Mathematics 340.

## 425 Algebraic Structures II

A study of rings and fields, including integral domains, polynomial rings, ideals, homomorphisms, and irreducibility of polynomials over prime fields. Other topics may include unique factorization domains, Euclidean domains, extension fields, automorphisms of fields and Galois theory, additional algebraic structures, or advanced topics in group theory. Prerequisite: Mathematics 325.

## 440 Real Analysis

An extension of the material introduced in Mathematics 340. Topics may include sequences and series of functions, uniform convergence, power series and Taylor's theorem, the topology of Euclidean space, the foundations of the calculus of several variables, the implicit function theorem, the inverse function theorem, and the Lebesgue integral. Prerequisite: Mathematics 340.

## 585 Junior Seminar

Seminar discussion of selected topics in mathematics. Students read and present articles from mathematical journals and conduct preliminary research on potential senior project topics. The writing and presentation of mathematics is emphasized. Prerequisite: Mathematics 205 or permission of instructor.

## 590 Independent Study

Credit: Variable.

## 620 Senior Project

The student completes research and writing for the Senior Project and gives an oral defense. Prerequisite: Permission of instructor.

## Sophomore Seminar

## FS MAT 201 Communication in a Discipline

Applications of Wavelets
An introduction to writing and speaking in the discipline of Mathematics. Wavelet analysis, a relatively new area of study, has connections to a variety of areas including image compression, speech recognition, DNA analysis, and forgery detection. After learning about the mathematics involved, students explore some of these applications in greater detail. In addition to effective oral and written communication in Mathematics, the use of mathematical software packages such as Mathematica and LaTeX is emphasized. This course may be counted toward the completion of a major or minor in Mathematics. Prerequisite: Mathematics 160 with a grade of "C" or better, or permission of the instructor.

## Modern and Classical Languages

Professors Riess, Ensberg, Dantán, DeMeritt, Hernández, Herrera de La Muela, Herrman, Hughes, Kurash, Lewis, Reeck, Richter, Shi, N. Smith, Wolfe,

Foreign language study is widely recognized as both a practical and intellectually stimulating way for students to broaden their knowledge of the world around us, as well as to build a strong foundation of skills in oral and written communication. By exploring other cultures through literature and other media, and by engaging with speakers of other languages, Allegheny students are able to prepare themselves for careers in the increasing global marketplace or for advanced studies in literature or language.
The department offers majors and minors in French, German, and Spanish and minors in Chinese, Classical Studies and Latin. Placement level for those with previous study is based upon achievement tests or examinations administered at the time of entry. Exemptions to the placement test results will be based on individual consultation with the instructor. Other languages are available through the Center for Language and Culture (see end of section).
The department favors an integrated approach to language learning at the advanced level. While historical, political and cultural information become increasingly important, structural and grammatical components remain crucial to achieve a high proficiency in the language.
Among courses involving the sequential buildup of language skills, credit cannot be earned in a less advanced course after successful completion of one at a higher level without the permission of the Department.
Students learning a foreign language are urged to spend a semester or preferably a year abroad. The College sponsors several distinct study-abroad programs which are open to all qualified Allegheny students. (See "Off-Campus Study/Study Abroad.") Allegheny's financial aid may be used to support study in the following: Allegheny in Cologne; the Querétaro, Mexico Program; the Seville Program; the Tübingen Exchange Program, a year or semester of study at the Université Catholique de l'Ouest in Angers; the Quito, Ecuador Internship; American University in Cairo, Egypt Program; the Capital Normal University Study Abroad Program in Beijing, China; the CIEE Liberal Arts Program in Buenos Aires, Argentina; the Boston University internship program in Paris; and the internship program in Dakar, Senegal. Students not enrolling in the College-sponsored programs may, with the approval of the department and the Director of International Programs and Services, join other programs. Study abroad may exempt students from enrollment in certain required courses for the major on campus.

Proficiency in a foreign language is an integral part of the International Studies Program. Courses listed under a specific language are taught in that language.

## Arabic

See the "Center for Language and Culture" at the end of the departmental listings.

## Chinese

See also the Chinese Studies minor listed in the "Interdisciplinary Minors" section.

## The Minor

The minor in Chinese Language and Culture requires 20 semester credit hours of course work in Chinese, including eight hours at or above the 300 -level.

## Study Abroad

Students are encouraged to study in mainland China or Taiwan after completion of Chinese 120. Most students choose to participate in the Allegheny-sponsored program in Beijing, China (semester or year-long exchange program with Capital Normal University). Students may receive credits for one level of language per semester spent abroad. Please consult with Professor Shi regarding placement and transfer credits.

## 110 Beginning Chinese I

An introduction to both the spoken and written Chinese language. Students learn basic Chinese characters, structural patterns, reading strategies, and basic elements of Chinese culture. Three class meetings; one oral practice period per week.

## 120 Beginning Chinese II

A continuation of the introduction to both the spoken and written Chinese language. Students learn additional Chinese characters and structural patterns. Students begin to practice reading for comprehension, develop basic writing skills, and receive an additional introduction to Chinese culture. Three class meetings; one oral practice period per week. Prerequisite: Chinese 110 or permission of instructor.

## 215 Intermediate Chinese

Continued acquisition and practice of both the spoken and written Chinese language. Students acquire additional Chinese characters and learn more complex structural patterns in order to improve reading and writing skills. Students begin to read selected authentic texts in Chinese to gain a better understanding of Chinese language and culture. Three class meetings; one oral practice period per week. Prerequisite: Chinese 120 or permission of instructor

## 225 Chinese Readings, Film, and Composition

An examination of Chinese films and written texts. Students develop reading and writing skills as well as the cultural knowledge needed for successful study abroad. Three class meetings; one oral practice period per week. Prerequisite: Chinese 215 or permission of instructor.

## 325 Contemporary Chinese Cinema (in English)

An introduction to a representative selection of Chinese cinema since the mid 1980s from mainland China, Hong Kong, and Taiwan. Students explore different genres of Chinese movies, learn to interpret typical Chinese cinematic language, appreciate Chinese literary and aesthetic standards, and observe China's march towards modernity and the
accompanying shifts in value and belief systems. One screening and two class meetings. Credits: Two credits.

## 326 Contemporary Chinese Cinema

Continued acquisition and practice of the Chinese language through the study of Chinese cinema. Students explore different genres of Chinese movies, learn to interpret typical Chinese cinematic language, appreciate Chinese literary and aesthetic standards, and observe China's march towards modernity and the accompanying shifts in value and belief systems. Through viewing films, answering questions, reading online commentaries, and writing film reviews, students improve their language skills in Chinese. One class meeting. Credits: Two credits. Prerequisite: Chinese 225; Co-requisite: Chinese 325.

## 335 Chinese Literature in Translation

A general survey of Chinese literature from the pre-Qin period to the modern era. Students read Chinese literary works in translation from different periods, study representative genres, learn to appreciate Chinese literary conventions, and gain an understanding of Chinese philosophical ideas and ways of thinking. Two class meetings. Credits: Two credits.

## 336 Chinese Literature

Continued acquisition and practice of the Chinese language through the study of Chinese literature from the pre-Qin period to the modern era. Students read Chinese literary works of different periods, study representative genres, learn to appreciate Chinese literary conventions, gain an understanding of Chinese philosophical ideas and ways of thinking, and improve reading and writing skills in Chinese. One class meeting. Credits: Two credits. Prerequisite: Chinese 225; Co-requisite: Chinese 335.

## 592 Teaching in the Elementary or Secondary Schools

A field experience in education during which students work with teachers and students in elementary or secondary schools. Relevant readings, as well as discussions with the instructor and the supervising teacher, provide the background and context for the fieldwork. Students are required to keep a reflective journal and to complete a culminating project based on their experiences in the classroom. Credit: Two to four semester credit hours. Prerequisite: Permission of the instructor.

## French

## The Major

French majors are required to have a GPA of at least 2.0 in French at graduation. Only French courses taken at Allegheny or the Boston University program in Paris on a letter grade basis and only the most recent grade for repeated courses are included in the calculations. Only French 600 may be taken on a Credit/No Credit basis. Courses taken in an approved program abroad may count for the major and minor.

A major in French leads to the Degree of Bachelor of Arts through the completion of a minimum of 42 semester credit hours in French beyond French 215, including:

1. FSFRE 201
2. French 225
3. French 300
4. French 305
5. At least two survey courses. Survey courses offered at Allegheny include French 310, 320, and 330.
6. At least two topics courses. Topics courses offered at Allegheny include French 350, 360, and 370.
7. The Junior Seminar (French 580)
8. The Senior Project (French 600 and 610)

French majors who spend one semester abroad may complete up to 16 credits toward the major abroad, including not more than two 300-level literature and culture courses (one survey course and one topics course). For those majors who spend a year abroad, please consult with the French Section Head.

Depending on initial placement, students may also need to take French 110,120 , and/or 215 to complete the major.

## The Minor

Requires 20 semester credit hours in French, including FS FRE 201, French 225 and at least two 300-level courses. See also the French Studies Minor listed in the "Interdisciplinary Minors" section.

## Study Abroad

Juniors are encouraged to study in a French-speaking country.
Most students choose to study in the Allegheny-sponsored programs in Angers (semester or year-long exchange program with the Université Catholique de l'Ouest) or Paris (the Boston University semester internship program).

## 110 Beginning French I

A course stressing the spoken language, basic structural patterns, reading for comprehension, and introduction to French and Francophone cultures. Three class meetings; one oral practice period a week

## 120 Beginning French II

A course stressing the spoken language, basic structural patterns, reading for comprehension, and introduction to French and Francophone cultures. Three class meetings; one oral practice period a week. Prerequisite: French 110 or appropriate score on placement test.

## FS FRE $201 \quad$ Communication in a Discipline

Speaking of France Today
An introduction to contemporary French culture and conversation. Topics relating to French institutions and cultural identity are analyzed and discussed. These may include political, economic, and educational institutions and values as well as the arts, media, the workplace, and family life. Intensive conversaton practice to improve fluency and build vocabulary focuses on a variety of readings, films, and television news programs chosen to increase understanding of French society today. Assignments include discussion, debate and oral presentations as well as written and oral tests. Recommended for students planning to study in France. One additional oral practice session per week and atendance at French Table. Prerequisite: French 215.

## 215 Intermediate French

A review of basic structural patterns to improve reading, writing, and speaking skills in French. One additional oral practice session per week and attendance at French Table. Prerequisite: French 120 or appropriate score on placement test.

## 225 Exploring Genre: Poems, Prose, Plays

An introduction to French and Francophone literature designed to
serve as a transition from language courses to more advanced courses. Study of texts from each genre presents students with a vocabulary and method with which to analyze texts. Particular attention is given to close readings, reading comprehension, and writing about literature. Prerequisite: French 215 or permission of instructor.

## 300 Advanced Grammar and Composition

A grammatical and structural study of the French language in its written form, and specifically with regard to narrative activity. Written assignments focus on portrait, description, indirect and direct discourse, and narrative point of view. This is a required course for students who will continue with literature and culture courses. Prerequisite: French 225 or permission of the instructor

## 305 Advanced Conversation and Phonetics

Discussion and debate on a variety of topical subjects in conjunction with readings of literary texts and periodicals. Exercises in phonetics are included. One additional oral practice session per week and attendance at French Table are required. Prerequisite: French 225 or permission of the instructor.

## 310 From Romance to Revolution

A brief introduction to French literature of the Middle Ages and Renaissance, followed by a concentrated examination of French literary and artistic masterpieces of the 17th and 18th centuries. Representative texts including classical theater as well as works of the moralistes and the philosophes are examined within their historical context. Emphasis is placed on the representations of royal power, social convention, and challenges to state authority. Prerequisite: French 300 or permission of the instructor.

## 320 Romanticism, Realism, and Modernism

An examination of the upheavals and reversals of the 19th and 20th centuries in France through an analysis of literary movements such as romanticism, realism, existentialism, and the Theater of the Absurd. The course focuses on cultural issues including the relationship of the individual to society, social and political revolution, and the role of the artist. Prerequisite: French 225 or permission of instructor.

## 330 "The Empire Writes Back"

An introduction to the literature written in French from France's former colonies and its social-historical context. Topics include: the era of African Independences, la négritude, the Algerian War for Independence, and postcolonial immigration and writing in France. Emphasis is placed on the subversive nature of the literature studied and on how it inflects the French language, the French canon, and "Frenchness" itself. Articles from the press, essays, novels, and films are used. Prerequisite: French 300 or permission of the instructor.

## 350 Comedy and Tragedy

A study of comic and tragic perspectives in French and/or Francophone drama, poetry, narrative fiction, and prose. The periods studied may vary as well as the topics discussed, which might include: the evolution of farce, the development of comic prose, the individual's response to personal or cultural dilemmas, the rise of the French tragic theater, and the use and adaptation of myths. Students may be required to attend screenings of performances or adaptations of texts under study. Prerequisite: French 300 or permission of the instructor.

## 360 Stories and Storytelling

An exploration of French and/or Francophone narrative in prose and/or film. The texts, movements, and periods studied may vary; topics discussed may include: narrative styles and techniques in fiction and film, the history and evolution of these styles and techniques, the problems and possibilities of adaptation, oral traditions, and the
importance of stories to storytellers and audiences. Students may be required to attend several film screenings outside of class. Prerequisite: French 300 or permission of the instructor.

## 370 Writing and Society

An examination of significant literary texts written at important historical moments in the evolution of French and/or Francophone societies. Emphasis is placed on the role of literature in the development of intellectual history. Close reading and analysis focus on ways in which literature both reflects and influences the history of ideas. Topics vary from year to year and may include: l'écrivain engagé, political and historical essay-writing, and literature and war. Prerequisite: French 300 or permission of the instructor.

## 580 Junior/Senior Seminar

Seminar, including oral reports, discussions and an independent research paper. May be repeated for credit.

## 590 Independent Study

## 592 Teaching in the Elementary or Secondary Schools

A field experience in education during which students work with teachers and students in elementary or secondary schools. Relevant readings, as well as discussions with the instructor and the supervising teacher, provide the background and context for the fieldwork. Students are required to keep a reflective journal and to complete a culminating project based on their experiences in the classroom. Credit: Two to four semester credit hours. Prerequisite: Permission of the instructor.

## 600 Senior Project I

Preparation of a Senior Project proposal. A thesis statement, a short description of the project, and a bibliography have to be developed. Taken on a Credit/No Credit basis only. Credit: Two semester hours.

## 610 Senior Project II

Completion and oral defense of the Senior Project. Prerequisite: French 600.

## German

## The Major

German majors are required to have a GPA of at least 2.0 in German at graduation. Only German courses taken at Allegheny and Cologne on a letter grade basis and only the most recent grade for repeated courses are included in the calculations. Only German 600 may be taken on a Credit/No Credit basis. Courses taken in an approved program abroad may count for the major and minor.

The major in German requires completion of a minimum of 42 semester credit hours. Students must take German 305 or 310, German 325, and two more courses on the German 300-level, at least one German 400-level course, German 580, and German 600 and 610.

## The Minor

A minor in German requires completion of 20 semester credit hours in German, including at least eight credit hours on the 300-level. See also the German Studies Minor listed in the "Interdisciplinary Minors" section.

## Study Abroad

Students who have completed German 120 and would like to pursue their study of German are encouraged to participate in the Allegheny in Cologne Semester program. The program offers courses in German language, culture and literature, as well as courses in other areas such as
art history, political science, history and German literature in translation.
Students in their junior year who have taken two years of college
German or the equivalent may participate in the Tübingen Exchange Program. Students study directly at the University of Tübingen and may choose from a wide variety of academic courses.

## International Economics and Business

Those students wishing to pursue a career in language with a focus on international economics or business should combine their study of a particular country and language with a background in economics. If students are majoring in German and minoring in economics, they should take German $305,310,325$, and 360 as part of their requirements. Students may also select a double major in these two disciplines. In addition, students are encouraged to study abroad and to complete an internship either abroad or with a company engaged in international trade. For economics courses that complement a German major or minor, see the course of study described under International Managerial Economics in the Economics Department catalogue listing.

## 110 Beginning German I

A course stressing the spoken language, elements of grammar, reading for comprehension, and introduction to German culture. Three class meetings; two oral practice periods per week.

## 120 Beginning German II

A course stressing the spoken language, elements of grammar, reading for comprehension, and introduction to German culture. Three class meetings; two oral practice periods per week. Prerequisite: German 110 or appropriate score on language placement test.

## 230 Intermediate German

A review of basic structural patterns and discussion of selected texts in literature and civilization. There is an emphasis on writing and speaking to improve communication skills in preparation for upper-level literature and culture courses. One oral practice session per week. Prerequisite: German 120.

## 235/245 German Language and Culture I and II: Intermediate

An intensive review of basic structural patterns to improve German language skills, emphasizing oral communication. To provide the study of language in a cultural context, this course utilizes authentic German texts and a variety of field trip opportunities. Credit: Four semester hours. (Taught in Cologne, Germany.)

255/265 German Language and Culture I and II: Advanced An intensive study of advanced aspects of the German language, emphasizing oral communication. Various types of exercises and compositions, in addition to field trips and excursions, are used to practice the language within the context of the life and culture of Germany today. Credit: Four semester hours. (Taught in Cologne, Germany.)

## 280 Reading German Texts

A transition from basic language courses to more advanced literary and cultural texts, emphasizing vocabulary acquisition, methods to read, summarize, and analyze texts, and develop writing and speaking skills.

## 285 German Short Fiction

An introduction to short literary texts in German by 20th-century authors and to the historical, political, and cultural background of the period. The course is designed to build vocabulary, increase reading
skills and reinforce grammatical and communicative structures. Credit: Two semester hours. (Taught in Cologne, Germany.)

## 305 Advanced German in a Cultural Context

An intensive review of all four language skills (listening, speaking, reading, writing) at the advanced level. Special emphasis is on selected grammar principles used in a contemporary cultural context. The course includes a variety of exercises with emphasis on composition. Prerequisite: German 280.

## 310 Advanced German in Literary Context

A rigorous review of all four language skills on an advanced level and in a literary context. Based on individual needs, the course addresses selected grammatical and stylistic problems and concentrates on the writing of expository prose as well as on the discussion of literary texts.

## 315 Advanced Language Practice in an Authentic Cultural Context

An intensive individualized review of advanced principles of grammar and style combined with extensive writing of expository prose.
Participation in cultural events is utilized to practice oral communication. Credit: Four semester hours. (Taught in Cologne, Germany.)

## 325 German Culture

A comprehensive introduction to the historical, political, social, and intellectual background of German-speaking countries. Various types of compositions are used to practice language context. Special emphasis is placed on selected grammatical and linguistic concepts. Prerequisite: German 280.

## 345 Special Topics in German Literature and Culture

A use of literary and cultural texts to enrich cultural knowledge, to ncrease vocabulary, reinforce grammatical and communicative structures, and to introduce methods of textual analysis. Based on the theater and film program offered in Cologne, several plays and films are selected. (Taught in Cologne, Germany.)

## 350 Topics in German Literature

An introduction to texts from a variety of genres and different time periods. The course is designed to familiarize students with fictional literature and its critical evaluation. Emphasis is on modern developments (since 1750). May be repeated for credit. Prerequisite: German 305.

## 360 Topics in German Culture

An in-depth study of one area of German culture. Topics may include the position of women in society, the Holocaust, the connection of personal and national identity, the outsider in literature, the European Union. May be repeated for credit. Prerequisite: German 305.

## 370 Creative Writing in German

A study of the craft of writing in German. Emphasis is on the creative use of German to develop vocabulary, improve individual style, and compose short prose texts. Prerequisite: Permission of instructor. Credit: Two semester hours. Course may be repeated for credit by majors.

## 440 Seminar in Literature

In-depth study and discussion of texts within a theoretical framework. Emphasis is on the cultural, political, and historical context. The course examines a number of selected issues in literary theory. Individual research projects may be presented. Course may be repeated for credit by majors. Prerequisite: Permission of the instructor.

## 580 Junior/Senior Seminar

Seminar, including lectures, oral reports and discussion. May be repeated for credit.

## 590

## 592 Teaching in the Elementary or Secondary Schools

A field experience in education during which students work with teachers and students in elementary or secondary schools. Relevant readings, as well as discussions with the instructor and the supervising teacher, provide the background and context for the fieldwork. Students are required to keep a reflective journal and to complete a culminating project based on their experiences in the classroom. Credit: Two to four semester credit hours. Prerequisite: Permission of the instructor.

## 600 Senior Project I

Preparation of a Senior Project proposal. A thesis statement, a short description of the project and a bibliography have to be developed. Taken on a Credit/No Credit basis only. Credit: Two semester hours.

## 610 Senior Project II

Completion and oral defense of the Senior Project. Prerequisite: German 600.

## Latin

## The Minor

A minor in Latin requires a total of 20 semester hours. Students read widely in Roman literaure in the original Latin, with more extensive specialized study of a few particular texts. Students who begin Latin at Allegheny take 110, 120, 215, and 315 twice. Students with high school experience should take the placement test and may start at the intermediate or advanced level, in which case they repeat 315 as needed. See also the Classical Studies Minor listed in the "Interdisciplinary Minors" section.

## 110 Beginning Latin I

An introduction to the morphology, grammar and syntax of the Latin language.

## 120 Beginning Latin II

A continuation of Latin 110 with emphasis on syntax and advanced points of grammar. Reading in Latin prose. Prerequisite: Latin 110.

## 215 Intermediate Latin

Designed to consolidate students' knowledge of grammar and to develop Latin reading skills. The course includes a comprehensive review of grammar and short readings of ancient prose and poetry of increasing length and complexity. Prerequisites: Latin 120 or placement exam.

## 315 Advanced Latin

Specialized study of specific works of Latin literature. Students read extensive selections of ancient literature in the original with the goal of increasing reading speed and comprehension. Special emphasis is placed on stylistic analysis and literary context. The specific texts change each year, and the course may be repeated. Authors studied may include: Caesar, Cicero, Livy, Lucretius, Ovid, Plautus, Tacitus, or Virgil. Prerequisites: Latin 215 or placement exam.
590 Independent Study

## Literature in Translation

## 270 Greek Mythology

An introduction to ancient Greek mythology in its literary, historical, and ritual contexts. The gods, heroes, and monsters of the Greeks are
studied through a variety of literary and visual sources, including poetry, myth collections, and the tragedies of classical Athens. Class sessions focus on discussion of primary materials, and topics include the myths of creation, patterns and recurrent motifs in mythological narrative, gender roles and identities, mythological vs. rational thinking, and modern analysis of Greek myth.

## Spanish

## The Major

Spanish majors are required to have a GPA of at least 2.0 in Spanish at graduation. Only Spanish courses taken at Allegheny on a letter grade basis and only the most recent grade for repeated courses are included in the calculations. Only Spanish 600 may be taken on a Credit/No Credit basis. Courses taken in an approved program abroad may count for the major and minor. Native or near-native speakers of Spanish should consult with the Spanish Section Head about major/minor requirements.

The major in Spanish requires completion of a minimum of 42 semester credit hours. Depending on initial placement Spanish 110, 120,130 , or 215 may be required. Students must take FS SPA 201, Spanish 225, Spanish 305 and/or 315, either Spanish 325, 335, or 345, and either Spanish $355,365,375$, or 385 . In addition, students must take at least one course at the 400 -level (SPAN 405-485). In their final year of study, students must take Spanish 580, and Spanish 600 and 610. All Spanish majors write a senior thesis on a topic relevant to a cultural or linguistic aspect of Hispanic studies.

Double majors who choose the language as the second major may complete only 40 semester credit hours. The senior thesis for a double major student must include a component in Spanish that is relevant to a cultural or linguistic aspect of Hispanic studies which may or may not coincide with the thesis topic of the other major.

Some of the required courses for the major may be earned through participation in an approved program of study overseas, with the exception of FS SPA 201, SPAN 580 and 610.

## The Minor

A minor in Spanish requires completion of 20 semester credit hours in Spanish, including at least eight credit hours above the 300-level: 4 hours in Spanish 305 or 315, and 4 hours in Spanish 325-485. See also the Latin American and Caribbean Studies Minor listed in the "Special Minors" section.

## Study Abroad

Students who major or minor in Spanish are encouraged to participate in the area studies program in Buenos Aires, Argentina; Querétaro, Mexico; or Seville, Spain. Programs offer courses in Spanish language, civilization and culture, literature, art history, politics and economics.

## 110 Beginning Spanish I

A course stressing the spoken language, basic structural patterns, reading for comprehension, and introduction to Spanish culture. Three class meetings; one oral practice period a week.

## 120 Beginning Spanish II

A course stressing the spoken language, basic structural patterns,
reading for comprehension, and introduction to Spanish culture. Three class meetings; one oral practice period a week. Prerequisite: Spanish 110 or appropriate score on placement test.

## 130 Accelerated Beginning Spanish

A review of basic structural patterns of Spanish language that combines material from Spanish 110 and 120 . Designed for students with previous experience with the language, this course allows students to build off their existing knowledge to increase reading, writing, speaking, and listening skills. Three class meetings; one oral practice period a week.

## 215 Intermediate Spanish

Review of grammar and reading of selected texts, with continued emphasis on oral practice and structural patterns. Three class meetings; two oral practice periods a week. Prerequisite: Spanish 120 or appropriate score on placement test.

## FS SPA 201 Spanish for Majors and Minors

Designed for students interested in completing a major or minor in Spanish. Emphasis is placed on developing the writing and speaking skills necessary for the student's successful participation in upper level courses. Special attention is paid to providing the tools for the critical analysis and study of Peninsular and Latin American literature, culture, and civilization. Special attention will also be paid to the student's specific needs, according to their field of student. Prerequisite: Spanish 225.

## 225 Hispanic Reading/Composition

Reading and discussion of selected texts by modern Spanish or Spanish American authors. Students develop reading, writing and speaking skills in preparation for upper level literature and culture courses with an introduction to literary analysis and continued emphasis on writing. Prerequisite: Spanish 215 or permission of the instructor.

## 305 Conversation and Composition

Intensive discussion and writing on a variety of topical subjects in conjunction with readings of literary texts or periodicals. Includes exercises in phonetics. Designed to provide greater breadth and fluency in spoken and written Spanish. Prerequisite: Spanish 225.

## 315 Advanced Grammar and Composition

A study of the structure of the Spanish language including advanced grammar, as well as some review. Special attention is given to development of writing skills. Prerequisite: Spanish 225.

## 325 Civilization and Culture of Spain

Readings and discussions concerning principal currents of Spanish civilization and culture across the centuries. Recommended prior to study abroad in Spain. Prerequisite: Spanish 225.

## 335 Spanish American Civilization I

A study of the historical evolution of Spanish America from preColumbian times to 1810, providing both a political and cultural perspective. Recommended prior to study in Latin America. Prerequisite: Spanish 225.

## 345 Spanish American Civilization II

A study of the historical evolution of Spanish America from 1810 to the present, providing both a political and cultural perspective. Recommended prior to study in Latin America. Prerequisite: Spanish 225.

## 355 Special Topics in Spanish Peninsular Culture

An examination of Spanish literary and cultural texts to enrich cultural knowledge, increase vocabulary, and reinforce grammatical and communicative structures, with an emphasis on the craft of cultural commentary. Prerequisite: Spanish 305 or 315.

## 365 Special Topics in Latin American Culture

An examination of Latin American literary and cultural texts to enrich cultural knowledge, increase vocabulary, and reinforce grammatical and communicative structures with an emphasis on the craft of cultural commentary. Prerequisite: Spanish 305 or 315.

## 375 Latin American Short Story

An introduction to the most important Latin American short story writers in this century, such as Quiroga, Bosch, Borges, Cortazar and Rulfo. Prerequisite: Spanish 305 or 315.

## 385 Hispanic Cinema

A study of significant filmmakers, national cinematographies, periods and/or themes in Hispanic cinema. Topics vary according to instructor. May be repeated for credit with permission of instructor. Prerequisite: Spanish 305 or 315.

## 405 Translating Language and Culture

A study of the practice of translation from English to Spanish and Spanish to English. Students translate and compare translations of different types of texts in order to better understand differences in language structure and cultural expression. Assignments include translating business letters, advertisements, essays, stories, and poetry, subtitling video, summarizing critical articles, and critiquing peers' translations. Prerequisite: Spanish 315 and one additional 300-level course, or permission of the instructor.

## 415 Golden Age Literature

An introduction to the literary, cultural, political and historical context that produced Spain's Golden Age. Special emphasis is given to Cervantes' Don Quixote and to the works of Lope de Vega, Calderón de la Barca and other important dramatists. The Baroque poetry of Luis de Góngora and Francisco de Quevedo as well as the work of María de Zayas are also studied. Prerequisite: One 300-level Spanish literature course.

## 425 Latin American Women Writers

Introduces students to the work of major Latin American women writers through a variety of feminist approaches to interpretation. Readings and discussions include work from the colonial period to the present. Prerequisite: Spanish 305 or 315 and one other 300 -level course.

## 465 19th- and 20th-Century Spanish Literature

A critical introduction to the most outstanding authors and currents from the Generation of 1898 to the poets of the Generation of 1927 and to the postwar flourishing of the novel. Special emphasis is given to the present movement and to the important contribution of nonCastilian literatures (Basque, Catalan and Galician) to Spain's cultural production. Prerequisite: One 300-level Spanish literature course.

## 480 20th-Century Spanish American Literature

Intensive study of modern Spanish American literature from the Modernist movement to the present. Selected readings and discussion. Prerequisite: One 300 -level literature course.

## 485 Hispanic Film, From Text to Screen

An exploration of the adaptation of Latin American, Spanish, or Caribbbean texts brought to the screen. Students examine short stories, journalistic accounts, novels, and/or screenplays and their filmic counterparts as an inquiry into the nature of verbal and visual representation. Special thematic focus may be given to the importance of constructs of gender, class, or national identity in relation to the film or text's specific context. Projects include book and film reviews, textual adaptation, or the shooting of a short film with digital cameras. Prerequisite: One 300-level Spanish literature, film or culture course.

## 580 Junior/Senior Seminar

A study of significant authors or themes in Hispanic literature or culture. This course is a seminar that involves readings and discussion and a final research project. Course topic varies from year to year. Annually, the course will include material that instructs students in the preparation of an independent research paper in Spanish. Prerequisite: One 400-level course or permission of the instructor. May be repeated for credit.

## 590 Independent Study

## 592 Teaching in the Elementary or Secondary Schools

A field experience in education during which students work with teachers and students in elementary or secondary schools. Relevant readings, as well as discussions with the instructor and the supervising teacher, provide the background and context for the fieldwork. Students are required to keep a reflective journal and to complete a culminating project based on their experiences in the classroom. Credit: Two to four semester credit hours. Prerequisite: Permission of the instructor.

## 600 Senior Project I

Preparation of a Senior Project proposal. A thesis statement, a short description of the project, and a bibliography have to be developed. Taken on a Credit/No Credit basis only. Credit: Two semester hours.

## 610 Senior Project II

Completion and oral defense of the Senior Project. Prerequisite: Spanish 600.

## Center for Language and Culture (CLC)

The Center for Language and Culture program offers the opportunity for alternative supervised language study. Depending on student enrollment and availability of resources, selected languages may include beginning level American Sign Language, Arabic, or English as a Second Language. Students contemplating study of ASL or ESL must submit an application to the CLC Director as early as possible during registration. Applications are available in the Department of Modern and Classical Languages, 104 Ruter Hall.

## 120 Beginning Arabic I

An introduction to both spoken and written Modern Standard Arabic. Students learn the basic sound and writing systems of Arabic and are exposed to various aspects of Arab culture. Communication at an elementary level is achieved by student study of language components including sounds, letters, grammar, and vocabulary. Four class meetings per week; two via interactive video conference. Credit: four semester hours.

## 220 Beginning Arabic II

An introduction to both spoken and written Modern Standard Arabic. Emphasis is placed on the functional use of the Arabic language. Students learn the basic structural patterns of grammar and phonology, develop basic writing and conversational skills, and receive further introduction to Arab culture. Four class meetings per week; two via interactive video conference. Credit: four semester hours. Prerequisite: CLC 120 or permission of instructor.

## Music

## Professors Hepler, Chien, Dearden, Jamison, Sumerfield

Music is a creative art form in which sounds are selected and combined to be heard over time. It is also a means of communication and expression. The study of music enables consumers (listeners), re-creators (performers), and creators (composers) to increase their understanding of both the sounded and written aspects of musical language. Departmental courses accommodate a wide variety of musical backgrounds so that students can either begin or continue their musical development in three different areas:
a) Courses that concern the sound materials that are used to construct musical works, their organization into systems, and their interrelationships, which give rise to musical significance. Students learn to recognize and reproduce the basic elements both in sound and in notation, both in isolation and in complete musical contexts.
b) Courses that concern musical style; its historic progression through different times, places, and cultures; and specific composers and works which contributed to that progression. Students learn to recognize by sound and sight the ways in which musical elements are combined as compositional conventions: within a particular work, within the output of a composer, and by different composers in a particular time or place.
c) Courses that focus on performance, the actual production of music in sound. As the physical requirements of playing different instruments are applied to the elements of the score and to interpretative decisions, the potential of notation becomes the reality of sounded music. Repertoire for soloists is studied individually in applied lessons; repertoire for groups of performers is studied in ensembles.

## The Major

The major program in Music leads to a Bachelor of Arts degree and requires the completion of 48 semester credit hours of coursework. Music majors are required to have a GPA of at least 2.0 in departmental courses required for the Music major at graduation. No courses for the major in Music may be taken Credit/No Credit. Advance placement is given by diagnostic only.

The requirements for a major program in Music are as follows:

## Musical Materials

12 semester hours: Music 189, 288, 289 and 400. Students who place into Music 288 on the theory diagnostic must take an additional 2 semester hours of electives in music, excluding Music 088, 101, 188, and 189. Students who place into Music 289 on the theory diagnostic must take an additional 6 semester hours of electives in music, excluding Music 088, 101, 188, 189, and 288.

## Musical Styles

12 semester hours: Music 184, 286, 287, and 384.

## Music Performance on the student's principal instrument

16 semester hours in one of the following combinations: 10 semester hours in 430-479 or 530 and 6 semester hours in 110-118; or
11 semester hours in 430-479 or 530 and 5 semester hours in 110-118; or
12 semester hours in 430-479 or 530 and 4 semester hours in 110-118.

## Post-tonal Music

Two semester hours: Music 401

## Junior Seminar

Two semester hours: Music 580.

## Senior Project

Four semester hours: Music 600, one semester hour; Music 610, three semester hours.

Students who intend to pursue graduate studies in music are strongly advised to take applied lessons and ensembles on their principal instrument during all four years at Allegheny; one or two courses in French (French 110, 120, 215) or in German (German 110, 120, 215); independent studies in special topics in Musical Materials, Musical Styles, or conducting (Music 590); for students whose principal instrument is not a keyboard instrument, two semesters of applied piano.

## The Minor

The completion of 24 semester hours of coursework is required for the Music minor. Three directions are available: minor in Music with music theory emphasis; minor in Music with music history emphasis; or minor in Music with performance emphasis. Music minors are required to have a GPA of at least 2.0 in courses required for a Music minor at graduation. No courses for the minor in Music may be taken Credit/No Credit. Advance placement is given by diagnostic only.

## Minor in Music with music history emphasis:

Musical Materials: 6 semester hours taken from Music 189, 288, 289, 400 and 401 as determined by diagnostic exam. Students who place into Music 288 on the theory diagnostic must take Music 288 and 289. Students who place into Music 289 on the theory diagnostic must take Music 289 and either Music 400 or 401.
Musical Styles: 12 semester hours: Music 184, 286, 287 and 384.
Music Performance on the student's principal instrument: 6 semester hours. 4 semester hours in Music 430-479 or 530; and 2 semester hours in Music 110-118.

## Minor in Music with music performance emphasis:

Musical Materials: 6 semester hours taken from Music 189, 288, 289, 400 , and 401 as determined by diagnostic exam. Students who place into Music 288 on the theory diagnostic must take Music 288 and 289.
Students who place into Music 289 on the theory diagnostic must take Music 289 and either 400 or 401.
Musical Styles: 6 semester hours including Music 184 and either 286 or 287.

Music Performance on the student's principal instrument: 12 semester hours. 8 semester hours in Music 430-479 or 530, and 4 semester hours in Music 110-118. A maximum of 2 semester hours in Music 114 will be counted toward the minor in music performance.

## Minor in Music with music theory emphasis:

Musical Materials: 12 semester hours taken from Music 189, 288, 289, and 400 . Students who place into Music 288 on the theory diagnostic must take Music 401. Students who place into Music 289 on the theory diagnostic must take Music 400 and 401 and 2 semester hours of electives, excluding Music 088, 101, 188, 189, and 288.
Musical Styles: 6 semester hours including Music 184 and either 286 or 287.
Music Performance on the student's principal instrument:
6 semester hours: 4 semester hours in Music 430-479 or 530, and 2 semester hours in Music 110-118

## 088 Fundamentals of Music

A study of the rudiments of musical language. Students learn to recognize, read, and reproduce the written symbols of music, such as clefs, notes, and rhythms. Beginning ear training teaches students to aurally distinguish basic intervals and scale patterns. Students also learn to reproduce intervals and scale patterns both verbally and on a keyboard. No musical background is required.

## 101 Music Appreciation

An introduction to the basic audible elements of music and how they combine to form recognizable characteristics of individual pieces, particular composers, and historic styles. Students become able to identify by ear specific works, composers and styles, including specific themes, textures and tone colors. No musical background required. Three days per week.

## 102 Bach to Basics

An introduction to musical materials, processes, idioms, and forms, as found in the works of J.S. Bach. Solo, chamber and ensemble works for instruments as well as sacred and secular vocal and choral pieces will be studied, primarily by listening and also by reference to musical scores. Recognition of a core list of works will be expected.

## 103 Beethoven Symphonies

A survey of the nine symphonies by Ludwig van Beethoven. This course is designed to involve students in attentive and intentional listening by surveying the composer's effort to resist conformity to the classical style.

Students are introduced to these works from the perspective of the performer and from comparative listening to different interpretations. No music background is required.

## 104 Music of the Renaissance

A survey of the history of music from 1430 to 1600 . The course will begin with the English and Burgundian schools, and conclude with the establishing of opera in the early 1600 s. Music's special relationship with the Reformation and Counter-Reformation will be considered, along with the Italian Madrigal, the Florentine Camerata, and the Venetian polychoral school. No musical background required.

## 105 Applied Music: Class Piano

Class instruction for beginners learning how to read music at the keyboard. Credit: One semester hour.

## 106 Applied Music: Class Strings

Class instruction for beginners learning how to read music on a string instrument. Credit: One semester hour.

## 107 Applied Music: Class Woodwinds

Class instruction for tbeginners learning how to read music on a woodwind instrument. Credit: One semester hour.

## 108 Applied Music: Class Voice

Class instruction for beginners learning how to read and sing music. Credit: One semester hour.

## 110-118 Ensembles

Most ensembles also require an audition. Specific details are on file in the Music Department office. Ensembles have different numbers of weekly rehearsals. Students receive one semester hour of credit per semester of participation, regardless of the weekly rehearsal schedule. Prerequisite: Permission of instructor. Credit: One semester hour.

| 110 | Civic Symphony |
| :--- | :--- |
| 111 | Chamber Orchestra |
| 112 | Wind Symphony |
| 113 | Wind Ensemble |
| 114 | Jazz Band |
| 115 | College Choir |
| 116 | Women's Ensemble |
| 117 | Chamber Choir |
| 118 | College Chorus |

## 120 Chamber Music

An opportunity for performance in small ensembles such as a string quartet, piano trio, and woodwind quintet. Students should register as a group or will be placed in a group. Each group rehearses at least two hours per week and receives a weekly coaching. Attendance at scheduled chamber music seminars is required. Prerequisite: concurrent registration in another ensemble (Music 110-119) and permission of the instructor. Credit: One semester hour.

## 123 Brahms Chamber Music

A survey of the chamber music of Johannes Brahms. This course is designed to involve students in attentive and intentional listening by surveying this one genre in which the composer's output represent a large number of romantic epics. Students will also be introduced to these works from the perspective of the performer as well as from comparative listening of different interpretations. Opportunities to experience "live" performances will enrich the listener. No music background is required.

## 133 Chopin and Liszt

A survey of the works by two romantic giants of the piano repertoire. This course is designed to involve students in attentive and intentional listening by surveying the ballades, concerti, etudes, fantasies, mazurkas, polonaises, preludes, scherzo, and sonatas of Chopin and Liszt. Students are introduced to these works from the perspective of the performer as well as from comparative listening to different interpretations. No music background is required.

## 143 Classical and Romantic Concerti

A survey of the concerto genre from the classical and romantic styles. This course is designed to teach students to listen to music attentively and intentionally through studying and listening to concerti by Beethoven, Brahms, Bruch, Dvorak, Elgar, Haydn, Liszt, Mendelssohn, Mozart, Rachmaninoff, Sibelius, and Tchaikowsky. Students are introduced to these works from the perspective of the performer and from listening to different interpretations. No music background is required.

## 153 Classical and Romantic Sonatas

A survey of the sonata genre from the classical and romantic styles. This course is designed to teach students to listen to music attentively and intentionally through studying and listening to sonatas by Beethoven, Brahms, Chopin, Franck, Haydn, Liszt, Mozart, Schumann, among others. Students are introduced to these works from the perspective of the performer and from listening to different interpretations. No music background is required.

## 184 Styles Survey

A survey of works from all of the historical style periods. The course focuses on a refinement of a vocabulary in music and a study of the history underpinning music from these different periods. An emphasis on effective writing prepares the student for more advanced work in music history. Prerequisite: Placement by diagnostic exam. Credit: Two semester hours.

## 187 History of Jazz

Jazz will be presented from its African origins through the progressive jazz era of the late 1950 s and early 1960s. Styles and performance practices of the various periods of jazz will be examined. Three days per week.

## 188 Music Theory I: Introduction to Major/ Minor Keys

A study of the basic styles of sounded and written music, including clefs, basic keyboard, conventions of notation, pitches, rhythm and meter, and major and minor scales and keys. Students develop recognition and reproduction of these materials by sight and sound. Two days per week, plus one laboratory. Prerequisite: Music 088 or placement by diagnostic exam. Credit: Two semester hours.

## 189 Music Theory II: Combining Musical Tones

A continuation of the study begun in Music 188. Additional materials include intervals, melodic dictation, triads and their harmonic functions within a key, and four-part vocal texture. Students develop recognition and reproduction of these materials by sight and sound. Two days per week, plus one laboratory. Prerequisite: Music 188 or placement by diagnostic exam. Two semester hours of credit.

## 230-279 Applied Music Lessons

Individual instruction for students at the beginning through the intermediate levels; no minimum level of repertoire required.
Expectations of daily practice and improvement will be established
by each applied instructor. Students should expect to spend twice as much time in preparation for one-hour lessons as they would for half-hour lessons. Subsequent registrations on the same instrument
may be at any level, subject to the approval of the instructor or the applied coordinator. These applied courses may not be taken Credit/ No Credit. For specific course numbers designated for different instruments see "Applied Music Course Numbers" at the end of the departmental courses. The fee and refund policy for these applied lessons is listed under "Student Charges and Terms of Payment," "Explanation of Fees," and "Studio Instruction in Music." Credit: Section 1, one semester hour: weekly half-hour lessons; Section 2, two semester hours: weekly one-hour lessons.

## 283 Jazz Improvisation

Analysis and performance of basic, familiar jazz forms and devices. Materials are chosen to complement and improve the level of each student. Recordings and solos of master players are analyzed, transcribed and performed. The class becomes a small jazz combo in which the students apply the techniques discussed. Three days per week. Prerequisite: Permission of instructor.

## 286 Styles: Greece - 1750

An extensive survey of music from the ancient Greeks through the Baroque era, culminating with J.S. Bach. The course explores the historical sequence and the cultural contexts in which the various styles developed. Students undertake intensive audible and visual score study as well as readings from a variety of sources. Special emphasis is placed on the transitions between eras. Three days per week. Prerequisites: Music 184 and Music 188 or placement by diagnostic exam. Credit: Four semester hours.

## 287 Styles: 1750-1900

An extensive survey of music from the pre-Classic, Classic, and Romantic eras, beginning with the music of Domenico Scarlatti and concluding with the Impressionism of Claude Debussy. The course explores the historical sequence and the cultural contexts in which the various styles developed. Students undertake intensive audible and visual score study as well as readings from a variety of sources. Special emphasis is placed on the transitions between eras. Three days per week. Prerequisites: Music 184 and Music 188 or placement by diagnostic exam. Credit: Four semester hours.

## 288 Music Theory III: Harmonic Materials Within One Key

An expansion of material studied in Music 189, using four-part vocal texture. Additional materials include: diatonic harmonic functions in all keys, singing melodies at sight, harmonic dictation, harmonic analysis of musical examples, compositional exercises, non-chordal tones, and seventh chords from within one key. This course introduces additional pitches not available in any one key and methods of changing keys. Students develop recognition and reproduction of these materials by sight and sound. Prerequisite: Music 189 or satisfactory score on diagnostic exam. Three days per week, plus one laboratory.

## 289 Music Theory IV: Harmonic Materials Beyond One Key

A continuation of material studied in Music 288. Additional materials include using tones from outside a key, mixing materials from major and minor keys, more complex ways of changing keys, methods of obscuring a clear key identity, scales other than major and minor, and more complex chords. The focus is on those deviations for the Major-Minor key system that led to the musical environment at the beginning of the 20th century. The course includes an introduction to 20th-century materials, including exotic scales, complex chord structures, and parallelism. Students develop recognition and reproduction of these materials by sight and sound. Prerequisite: Music 288 or satisfactory score on diagnostic exam. Three days per week, plus one laboratory.

## 290 Advanced Aural Skills in Tonal Musical Materials

A survey of advanced skills in ear training, sight singing, keyboard harmony, and rhythm; continues studies begun in Music 188, 189, 288, and 289. Two days per week. Prerequisite: Music 289. Credit: Two semester hours. Offered only on a Credit/No Credit basis.

## 330-379 Applied Music Lessons

Individual instruction for students at the advanced level. A minimum level of repertoire difficulty is required as is attendance at weekly performance seminars. Specific details on the repertoire requirement for each instrument are on file in the Music Department office. Expectations of daily practice and improvement will be established by each applied instructor. Students should expect to spend twice as much time in preparation for one-hour lessons as they would for half-hour lessons. Normal progress in repertoire and technique is expected in subsequent registration at this level. Attending performance seminars is required. The fee and refund policy for these applied lessons is listed under "Student Charges and Terms of Payment," "Explanation of Fees," and "Studio Instruction in Music." These applied courses may not be taken Credit/No Credit. For specific course numbers designated for different instruments see "Applied Music Course Numbers" at the end of the departmental courses. Credit: Section 1, two semester hours: weekly half-hour lessons; Section 2, three semester hours: weekly one-hour lessons.

## 384 Music Literature through Listening

A listening-based survey of the major works of the Western canon. Students experience a large body of major works from Baroque to the present. Prerequisite: Music 287 or permission of instructor.
388 Special Topics in Theory
Not offered during some years.
389 Special Topics in History
Not offered during some years.

## 400 Form and Analysis

An application of functional harmony to the analysis of larger-scale works drawn from piano, symphonic, chamber and choral-orchestral repertoire. Prerequisite: Music 289. Credit: Two semester hours.

## 401 Styles: Post-Tonal Music

An extensive survey of post-tonal music from early Stravinsky to the present time. The course concerns successors to the Major-minor key system, including atonality, polytonality, Viennese serialism, midcentury developments such as minimalism, event-based music, chance music, and the belief that all sound, including silence, is music. Two days per week. Credit: Two semester hours. Prerequisites: Music 287 and Music 400.

## 430-479 Applied Music Lessons

Individual instruction for students at the advanced level. A minimum level of repertoire difficulty; attendance and performance at weekly performance seminars; and a final juried exam are required at this level. Specific details on the repertoire requirement for each instrument are on file in the Music Department office. Expectations of daily practice and improvement will be established by each applied instructor. Students should expect to spend twice as much time in preparation for one-hour weekly lessons as they would for half-hour lessons. During the initial enrollment at the 400 -level, the student must demonstrate skills that will accommodate repertoire. Normal progress in repertoire and technique is expected in subsequent registrations at this level. Attendance at and performance in performance seminars are required. A performance before a jury of at least three full-time Music faculty will constitute the final
examination. The fee and refund policy for these applied lessons is listed under "Student Charges and Terms of Payment," "Explanation of Fees," and "Studio Instruction in Music." These applied courses may not be taken Credit/No Credit. For specific course numbers designated for different instruments see "Applied Music Course Numbers" at the end of the departmental courses. Prerequisite: Permission of applied area coordinator. Credit: Section 1, two semester hours: weekly half-hour lessons; Section 2, three semester hours: weekly one-hour lessons.

## 530 Recital

Individual instruction with weekly one-hour lessons. Students must give a public recital to receive credit. The repertoire and length of the recital are to be determined by instructor and area coordinator. Prerequisite: Permission of coordinator of applied program. The fee and refund policy for these applied lessons are listed under "Student Charges and Terms of Payment," "Explanation of Fees," and "Studio Instruction in Music." Credit: Four semester hours, one-hour weekly lessons. This course may not be taken Credit/No Credit.

## 580 Junior Seminar

The Junior Seminar is a bibliography/research seminar which moves from the study of general bibliographical resources to specific tools for research in music. Students research and deliver papers and class presentations on assigned topics. The evolution of Senior Project topics and early research on these topics are two important goals of this course. However, students are not obligated to continue their seminar topics into their Senior Projects. Prerequisites: Music 289 and either Music 286 or Music 287. Credit: Two semester hours.

## 590 Independent Study

Credit: One to four semester hours.

## 600 Senior Project I

Design and approval of the Senior Project proposal; completion of the bibliography and at least one chapter; a formal meeting with the Senior Project Committee for evaluation of the completed chapter(s) and of the current status of the Project. Prerequisites: Music 289, 580, and either 286 or 287. Credit: One semester hour.

## 610 Senior Project II

Completion of Senior Project. Prerequisite or corequisite: Music 600. Credit: Three semester hours.

## Applied Music Course Numbers

For content descriptions of these courses, see Applied Music Lessons 230-279, 330-379 or 430-479 on previous pages.
Brass - see Professor Dearden

| Trumpet | 230 | 330 | 430 |
| :--- | :--- | :--- | :--- |
| French Horn | 231 | 331 | 431 |
| Trombone | 232 | 332 | 432 |
| Baritone/Euphonium | 233 | 333 | 433 |
| Tuba | 234 | 334 | 434 |
| Brass, other | 235 | 335 | 435 |
| Percussion - see Mr. Corsi |  |  |  |
| Percussion | 240 | 340 | 440 |
| Snare Drum | 241 | 341 | 441 |
| Timpani | 242 | 342 | 442 |
| Mallets | 243 | 343 | 443 |


| Keyboard - see Professor Chien |  |  |  | Woodwinds - se |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Piano | 250 | 350 | 450 | Flute/Piccolo | 270 | 370 | 470 |
| Organ | 251 | 351 | 451 | Oboe | 271 | 371 | 471 |
| Harpsichord | 252 | 352 | 452 | Clarinet | 272 | 372 | 472 |
| Voice - see Mrs. Jamison |  |  |  | Bassoon | 273 | 373 | 473 |
| Voice | 255 | 355 | 455 | Saxophone | 274 | 374 | 474 |
| Strings - see Mr. Rudolph |  |  |  | Woodwinds, other | 275 | 375 | 475 |
| Violin | 260 | 360 | 460 |  |  |  |  |
| Viola | 261 | 361 | 461 | Studio Instruction Fees |  |  |  |
| Violoncello | 262 | 362 | 462 | Please refer to "Studio Instruction in Music" listed in Student Charges and Terms of Payment section for information on fees. |  |  |  |
| String Bass | 263 | 363 | 463 |  |  |  |  |
| Harp | 264 | 364 | 464 |  |  |  |  |
| Guitar | 265 | 365 | 465 |  |  |  |  |
| Strings, other | 266 | 366 | 466 |  |  |  |  |

## Neuroscience

Professors Clark, Coates, Conklin, Cross, French, Hollerman, Kleinschmidt, Knupsky, Mumme, J. Palmer, Rankin

An interdisciplinary program, Neuroscience draws primarily upon course offerings of the Biology and Psychology departments. The major is considered a natural science major. Students majoring in Neuroscience may minor in any of the social sciences other than Psychology or in any of the humanities, to meet the College's curricular requirement for a minor outside the division of the major. Students wishing to study Psychology in depth may elect to double major in Neuroscience and Psychology. Students exercising this option must meet all the major requirements for both majors and must also take a minimum of 20 semester hours in Psychology, which are not counted toward the Neuroscience degree. A joint Senior Project for double majors can be arranged.

## The Major

Majors take a group of common introductory core courses and then take advanced courses specific to the Neuroscience emphasis track they select.

## Common Core Courses

(Note: Students who plan to take upper-level Biology courses should take FS Biology 201. FS Biology 201 is required for students interested in the Health Professions. Students may elect to take one course from the Common Core requirements on a Credit/No Credit basis.)
Take:
Biology 220 - Organismal Physiology and Ecology
Biology 221 - Genetics, Development and Evolution
Neuro 110 - Foundations of Neuroscience I
Neuro 120 - Foundations of Neuroscience II

Choose one:
Biology 385 - Biometrics or
Psychology 206-207 - Research Design and Statistics I and II
Take:
Chemistry 110 - Principles of Chemistry I
Chemistry 112 - Principles of Chemistry II
Chemistry 231 - Organic Chemistry I

## Cellular Neurobiology Emphasis

Choose three courses from among the following:
Biology 305 - Molecular Biology
Biology 320 - Cell Biology
Biology 380 - Animal Physiology
Biology/Environmental Science 342 - Toxicology
Neuroscience 405 - Neurophysiology
Psychology 154 - Physiological Psychology (Corequisite: Psychology 155 lab)
Psychology 411 - Systems Neuroscience
Choose one of the following Junior Seminar courses:
Biology 580 - Cellular Neurobiology
Biology 580 - Sensory Neurobiology
Psychology 558 - Behavioral Neuroscience
Psychology 559 - Clinical Neuropsychology
Senior Project I and II: (six semester credit hours)
Neuroscience 600 (two semester credit hours) and Neuroscience 605 (four semester credit hours) to be taken in sequential semesters.

## Behavioral and Cognitive Neuroscience Emphasis

Choose three courses from the following list:
(Note: At least one of these courses must be numbered 350 or above)
Psychology 150 - Sensation and Perception

[^0]
## Neuro 405 Neurophysiology

An exploration of the inner workings of the nervous system. Topics include synaptic transmission (how neurons "talk" to each other), ion channels, receptors, and the neurotransmitter life cycle, and current methods in molecular neuroscience and electrophysiology. Laboratory, one period. Prerequisite: Biology 221.

## Neuro 590 Independent Study

Neuro 600 Senior Project I
Credit: Two semester hours.
Neuro 610 Senior Project II
Credit: Four semester hours.

## Philosophy

Professors Boynton, Bywater, Farrelly-Jackson, E. Palmer

Philosophy has traditionally been the very center of the liberal arts. As most of the other disciplines that form the modern liberal arts curriculum have developed from philosophy to establish their own identities, philosophy continues to deal with problems that are fundamental to all disciplines. Philosophers inquire into structures that form the basis of all that exists, the ways we can justify our claims to knowledge, and the values and goals that guide individuals and society.
Allegheny's Philosophy program pays particular attention to the question of the values and goals that ought to guide individuals and society by exploring lived experience and analyzing the social world. More specifically, courses examine the relationship between society and science through a study of the values that have challenged and have fostered scientific activities and technological developments. Courses also examine ethics as a personal ideal as well as democracy and economic development as global and multicultural ideals.

## The Major

The major in Philosophy leads to the Bachelor of Arts degree. It requires completion of at least 42 semester credit hours, with distribution as outlined below.

1) Two out of three introductory courses: Philosophy 130,140 and 165. It is recommended, but not required, that these courses be taken before courses above the 100 level.
2) Philosophy 220
3) Philosophy 230 or 240
4) Philosophy 260 or 270 or 350
5) Philosophy 310
6) Philosophy 580
7) Philosophy 600 and 610
8) Two elective courses in philosophy or approved cognate courses from another discipline. By consulting with faculty, students may use electives to create an emphasis in a specific area of philosophy.
Philosophy majors are required to have a GPA of at least 2.0 in the major at graduation. All department courses taken at Allegheny on a letter-grade basis are included in that calculation, with the exception of repeated courses for which only the most recent grade counts. No more than two Philosophy courses may be taken Credit/No Credit to count toward the major; one of these must be Philosophy 600, which is only offered Credit/No Credit.

## The Minor

Minors must take:

1) Two courses from among Philosophy $130,140,165$, and 220.
2) Philosophy 310
3) Philosophy 580
4) Two electives to bring the total to 24 credits.

Philosophy minors are required to have a GPA of at least 2.0 in the major at graduation. All department courses taken at Allegheny on a letter-grade basis are included in that calculation, with the exception of repeated courses for which only the most recent grade counts. No more than one Philosophy course that is taken Credit/No Credit will count toward the minor.

## 130 Values and Knowledge

An introduction to the connections between the values and the ways of knowing that are characteristic of modern western culture. The course focuses upon the pursuit and justification of knowledge and scientific understanding and the ethical and political values that are implicit in those endeavors. Not open to seniors.

## 140 Ethics and Community

An examination of contemporary challenges facing democracy as an ideal for the moral life and the moral community. Not open to seniors.

## 165 The Examined Life: Philosophy Through the Ages

A broad introduction to western philosophy through discussion of the perennial questions that have challenged thinkers from ancient Greece to the 21st century: questions about human knowledge, the relation of mind and body, the nature of reality, free will, the existence of God, social justice, ethics, and the meaning of life. Students engage the ideas of philosophers such as Plato, Aristotle, Descartes, Kant, Mill,
Wollstonecraft and Sartre, along with those of contemporary thinkers. Not open to seniors.

## 210 Oppression and Liberation

An overview of analyses of oppression and theories of liberation generated by groups traditionally marginalized in the United States. Prerequisite: Sophomore standing.

## 212 The Problem of the Self: East and West

(also listed as Religious Studies 212)
An examination of the problem of the self in a cross-cultural context. The Eastern traditions are represented by early Buddhism, the Advaita Vedanta philosophy of Sankara, Taoism and Zen Buddhism. The Western tradition is represented by the existential thought of Soren Kierkegaard, the dialogical philosophy of Martin Buber, the deconstructive theology of Mark C. Taylor, and others. This course may alternatively be counted toward a religious studies major or minor. Prerequisite: At least one course in Philosophy or Religious Studies.

## 220 Epistemology: The Theory of Knowledge

What do you really know, and how can you justify your claims to know? This course examines the ways in which philosophers have attempted to
answer these questions. It considers skepticism about the possibility of any certain knowledge, presents analysis of reasonable and unreasonable uses and interpretations of the term "truth," and explores recent failed attempts to provide foundations for knowledge in empirical evidence.

## 227 Religion and the Challenge of Modernity

(also listed as Religious Studies 227)
An exploration of the philosophical study of religion, particularly in light of the contest between traditional modes of religious expression and the rise of a critical mentality in the modern West. Issues to be addressed may include the ethics of belief, theories of rationality and their relevance to religion, the problem of evil, religious experience, and the epistemic status of belief in God. Prerequisite: A previous course in Religious Studies.

## 230 Science in Its Cultural Setting

A study of the structure and justification of scientific theory and of the activities of scientists engaged in theory development. A theoretical component of the course concerns the logical processes of theory acceptance and rejection. That component is fleshed out in historical study of theory development in one or two notable episodes in the history of science, such as the Copernican revolution in astronomy or the development of Darwinian theory in biology. Prerequisites: One course in philosophy or one course in natural science, or permission of instructor.

## 240 Mind and Brain

A philosophical exploration of historical and 20th-century attempts to understand and to model human thought. A study of episodes in the long tradition of the study of mind and brain in philosophy is connected to current work within the disciplines of neuroscience, cognitive science, and artificial intelligence. Students read the writings of past and contemporary philosophers and practitioners within the other disciplines mentioned. Prerequisite: One course in Philosophy or permission of the instructor.

## 250 Philosophy and the Arts

An introduction to a wide range of issues arising in connection with the arts. Students consider the nature of art, aesthetic perception and experience, aesthetic value, expression, representation, interpretation and criticism of the arts, morality and art, and the influence of postmodernism on art and aesthetics. The main ideas of such figures as Plato, Aristotle, Hume, Kant, Nietzsche, Tolstoy, and Freud are discussed alongside those of contemporary philosophers and artists.

## 260 Ancient Greek Philosophy

A comprehensive introduction to ancient Greek philosophy covering the pre-Socratics, Socrates, Plato, and Aristotle. Through close study and discussion of a range of original texts (in translation), students engage the main ideas of these philosophers on such themes as the nature of reality, the soul, knowledge, virtue, and the good life for humans.

## 270 Early Modern Philosophy: Science and Knowledge

A study of translated writings from European thinkers of the 17th and 18th centuries on epistemology, the description of the human mind, and the justification of scientific understanding. Authors may include Galileo, Descartes, Leibniz, Locke, Hume and Kant. The authors present positions relevant to a number of philosophical movements, including the Mechanical Philosophy, Rationalism, Empiricism and Transcendental Philosophy. Prerequisite: One course in Philosophy.

## 290 Business and Management Ethics

A consideration of ethical practice within the activities of management professionals. Case studies are considered in the light of philosophical
theories of the good, of ethical action, and of individual and social purposes. Examples include the development, sale, and marketing of dangerous or damaging products such as tobacco; the responsibilities borne by management toward various stakeholder groups; and the roles of political influence and bribery at home and in other nations. Discussion is cast in the language of business ethics and is also relevant to management activity in governmental and non-governmental organizations.

## 310 Global Justice

An examination of the difficulties facing the ideals of democracy, international aid and development as global and multicultural movements. We consider the justice of such institutions from the perspectives of international responsibilities and local self-determination. Prerequisites: Philosophy 140 or 210 or permission of the instructor.

## 350 Ethics and Existence

A study of some of the major movements in recent continental philosophy with an emphasis on re-imagining ethical responsibility. Among the movements considered are phenomenology, existentialism, philosophical hermeneutics, poststructuralism, deconstruction, and postmodernism. Thinkers to be discussed may include Husserl, Heidegger, Gadamer, Sartre, Foucault, Derrida, Irigaray, Deleuze, Lyotard, and Levinas. Prerequisites: One course in philosophy or permission of the instructor.

## 395 Medical Ethics

A study of the principles of medical ethics as applied to case studies. After studying the nature and foundations of the principles of medical ethics, students present oral and written analyses of medical cases that pose significant ethical issues. Prerequisite: Not open to first-year students.

## 475 Practicum in Teaching Philosophy

An examination of the literature about teaching philosophy to younger students and an experience in teaching philosophy to middle or high school students. Prerequisite: Approval of instructor.

## 580 Philosophy Seminar

An advanced study of a problem or central figure in philosophy. Course content changes substantially from year to year; consequently, seminars offered under this number may be taken more than once. See department members to discuss, and perhaps to suggest, upcoming offerings. Prerequisites: At least one course in philosophy, or permission of the instructor. This course may not be taken on a credit/no credit basis

## 590 Independent Study

## 600 Senior Project Tutorial

Preparation for the Senior Project; preliminary research and project proposal including a discussion of how work done outside the department for the major will be integrated into the project. Credit: Two semester hours. To be taken on a Credit/No Credit basis.

## 610 Senior Project

Final research, presentation and defense of the Senior Project.

## Physics

## Professors Statman, Lombardi, Petasis, Poynor, Rahman, Willey

Physics is crucial for understanding the principles that govern our physical world. It studies everything in nature from the formation of the universe, galaxies, and black holes to the unusual way living systems behave. Technological breakthroughs with lasers, liquid crystal displays, and magnetic resonance imaging have had impact in communications, information technology, and medicine. These have revolutionized our lives in a manner that would not have been possible without physics. From the space shuttle to studies of global warming, physicists work at the forefront of science and technology.
It is the goal of the physics department to help students develop strong backgrounds in experimental, theoretical, and computational physics and to learn the scientific method of investigation. As problems become increasingly complex, it has become clear that successful approaches often combine knowledge from different areas. Because much of 21st century physics is interdisciplinary, we endeavor to teach students how to integrate what they learn in their physics courses with knowledge in other fields. We seek to foster within each student an enthusiasm for learning and critical reasoning which lasts a lifetime.We also help students appreciate physics as a human endeavor that is intellectually satisfying. We strive to make our students aware of the responsibilities facing scientists in our contemporary society and learn how to effectively communicate their ideas in both oral and in written form.
Our graduates pursue a variety of careers or continue graduate studies in various disciplines. Some of our students choose to apply their major in either elementary or secondary public or private school teaching. Students choosing to pursue teacher preparation and certification in physics should contact the physics department and the Coordinator of Teacher Education Programs.
Beginning Courses in Physics: Students should take Physics 065, Introduction to Physics, if they desire an introduction to physics but do not plan to major in a department in the natural science division. If they plan to major in Physics or be part of the $3 / 2$ Engineering Program, they should begin with Physics 110.

## The Major

A major in Physics usually requires a minimum of 64 credit hours, including at least 40 credits in Physics, as well as additional credits in mathematics and other sciences, and leads to a Bachelor of Science Degree. Physics majors are required to have a GPA of at least 2.0 in Physics at graduation. All Physics courses taken at Allegheny on a letter grade basis are included in the calculation, with the exception of courses below the 100 -level (e.g. Physics 020 and Physics 065) and repeated courses for which only the most recent grade counts. Only the first Physics course taken at Allegheny (usually 101 or 110 ) may be taken on a Credit/ No Credit basis. The following courses are required for the major:

## Core Courses

1. Math 160 - Calculus I

Math 170 - Calculus II
Phys 292 - Mathematics for Physical Science (or both Math 210-Calculus III and Math 290 - Ordinary Differential Equations)
(12 credits)
2. Phys 110 - Core Concepts in Physics 1 Phys 120 - Core Concepts in Physics 2 Phys 210 - Core Concepts in Physics 3 (12 credits)

With departmental approval, students may use Phys 101 and 102 in place of Phys 110 and 120.
3. Physics 280 - Programming and Simulation (4 credits)
4. FS Phys 201 - Investigative Approaches in Physics (4 credits)

## Basic Science Courses

1. Chem 110 - Principles of Chemistry 1 or Chem 120 - Chemical Concepts 1 (4 credits)
2. Phys 260 - Introduction to Thermal Physics, Chem 112 Principles of Chemistry 2, or Chem 122 - Chemical Concepts 2 (4 credits).
3. At least 4 credits from the Natural Science Division that are at the 100 -level or above and are not in Physics, Mathematics, or physical chemistry.

## Intermediate courses

A minimum of 12 credits in Physics at the 300-level.

## Advanced courses

1. At least 2 credits in Physics at the 400 -level.
2. 2 credits of Jr. Seminar (Phys 580)
3. At least 4 credits of Sr. Project (Phys 602, or Phys 600 and 610).

Physics has become rather broad, ranging from interdisciplinary subdisciplines in astrophysics, biophysics and chemical physics, to
traditional subdisciplines in condensed matter physics, and optical physics. In order to provide some focus for the student, each student who declares physics as a major must work with an advisor in the physics department to plan a course of study which may be either a standard physics emphasis or a major with an interdisciplinary emphasis. With the aid of his or her advisor, the student must prepare, for departmental approval, a written description and rationale for the course of study. This description must be submitted by the end of the fourth week of the junior year (typically fall semester). It must include a plan of courses to be taken and how those courses satisfy the student's goals.

The standard physics emphasis is for those students interested in pursuing a more traditional course of study. These students would consider taking Physics 310, 340,330 or 350 , and 370 or 380 . Any physics course at the 400 -level would be useful to this emphasis.

Examples of possible interdisciplinary emphases and possible courses beyond the core courses are described below:
Applied Physics: Students interested in applied physics or who plan to go on into engineering disciplines might construct an emphasis that includes both experimental physics courses, Physics 330 and Physics 350 along with Physics 310, 340 or 370 . Chemistry 112 and an additional chemistry course should also be considered. Most physics courses at the 400 -level would be useful for this emphasis.
Astrophysics: Students interested in physics and astronomy might construct an emphasis that includes Physics 320, Physics 310, 340 or 350, and Physics 380. Courses at the 400 -level most useful for this emphasis would be Physics 420-429.
Biophysics: Students interested in the relationship between physics and biology might construct an emphasis that includes Physics 330 or Physics 350, Physics 360, Physics 380, Chemistry 112 and Biology 220. Courses at the 400 -level most useful for this emphasis would be Physics 430-439.
Chemical Physics: Students interested in the relationship between physics and chemistry might construct and emphasis that includes Physics 330 or 350 , Physics 370 , and Physics 380 , along with Chemistry 112 and Chemistry 231. Courses at the 400 -level most useful for this emphasis would be Physics 440-449.

Students are advised that if they are interested in pursuing graduate studies, there may be courses beyond the minimum requirements that they should consider. Such courses might include specific upper level physics courses, as well as additional math, computer science, chemistry, or biology depending on the student's particular interest.

## Cooperative Engineering Program

Students who participate in a cooperative engineering program (3-2 engineering) with a major in Physics are normally required to take 32 semester hours in Physics including Junior Seminar. These students should begin their study of Physics with Physics 110 or Physics 101. In some cases students in cooperative engineering programs may take less Physics credit at Allegheny and additional physics credits while at engineering school. They must also complete an introductory chemistry sequence and one semester of computer science.

## The Minor

A minor field program in Physics requires a minimum of 20 credits, eight of which must be taken at Allegheny. This also includes the completion of the three Core Concepts courses, Phys 110, Phys 120, and Phys 210 (or Physics 101, 102 and Phys 210), and other physics courses totaling eight credits, four of which must be at the 300 or 400 level.

## The Astronomy Minor

A minor in Astronomy requires a total of at least 22 semester hours. The five core courses are Mathematics 158 or 160; Physics 101 or 110; Physics 129 (Fundamentals of Astronomy with lab); Physics 320 (Astrophysics); and a course from Physics 420-429 (Current Topics in Astrophysics). With permission of the department, Physics 020 (Introductory Astronomy) may substitute for Physics 129. The minor is completed with one of the following courses or pairs of courses: Chemistry 110 and 112; Geology 110; Philosophy 230; Physics 102 or a higher level Physics course.

## 020 Introductory Astronomy

A descriptive study of the solar system, the stars, and the universe on its largest scales. Topics covered include the phases of the Moon, the seasons, the tides, the historical roots of astronomy, the constellations, telescopes, the Sun, star formation and evolution, compact objects, and the expansion of the universe. The course is designed to give students an appreciation of the beauty and order of the known universe. Use is made of the Wible Planetarium and the Newton Observatory telescopes. Because observations are weather dependent, students in the course must plan to complete an observation during appropriate evening or other hours. One laboratory per week. Students may not receive credit for both Physics 020 and Physics 129.

## 065 Introduction to Physics

For students not intending to major in one of the natural sciences and, as such, it requires no prerequisite course in mathematics. A basic understanding of mechanics, thermodynamics, sound, light, and nuclear physics, as well as some historical perspective, is developed. Emphasis is placed on the application of physics to modern problems and technology. One laboratory per week. May not be taken for credit following successful completion of Physics 101 or Physics 111.

## 101 Fundamentals of Physics I

An introductory calculus-based course intended primarily for students majoring in biology, environmental science, and geology with an emphasis on physical concepts and principles from the areas of classical mechanics, thermodynamics and waves. One laboratory/recitation session per week. Students who wish to major in physics after taking this course should consult the physics faculty before deciding which course to take next. Students may not receive credit for both Physics 101 and Physics 111. Corequisite: Mathematics 158, Mathematics 160 or permission of instructor. Offered in sequence with Physics 102.

## 102 Fundamentals of Physics II

A continuation of Physics 101 with an emphasis on the concepts of electricity, magnetism, and optics. One laboratory/recitation session per week. Offered in sequence with Physics 101. Students may not receive credit for both Physics 102 and Physics 112. Prerequisite: Physics 101 or permission of instructor.

## 110 Core Concepts in Physics I

An introductory, calculus-based course covering fundamental physical concepts from Newtonian mechanics, such as the conservation of energy and momentum. One laboratory and one recitation session per week. Students cannot receive credit for both Physics 110 and Physics 101. Is restricted to first- and second-year students. Co-requisite: Mathematics 160 or equivalent.

## 120 Core Concepts in Physics II

An introductory, calculus-based physics course covering fundamental physical concepts from relativity, electricity and magnetism. One
laboratory and one recitation session per week. Students cannot receive credit for both Physics 120 and Physics 102. Prerequisite: Physics 110 or permission of instructor. Co-requisite: Mathematics 170 or equivalent.

## 129 Fundamentals of Astronomy

A study of the Earth and heavenly bodies, their observed characteristics and motions, and the theories that account for them. The course is designed to give the students an understanding of the tools and fundamental physical concepts of astronomy. Topics covered include celestial timekeeping, gravity, orbits, light, the birth and evolution of stars, basic relativity theory, black holes and other compact objects, dark matter, dark energy, and the big bang theory. One laboratory per week. Students may not receive credit for both Physics 020 and Physics 129. Co-requisite: Mathematics 157, 159, or equivalent (placement into 160 is sufficient).

## 210 Core Concepts in Physics III

An introductory, calculus-based physics course covering fundamental physical concepts from basic quantum theory and thermodynamics. Prerequisite: Physics 120 or permission of instructor. Co-requisite: FSPhys 201.

## 260 Introduction to Thermal Physics

An introductory course focusing on the three laws of thermodynamics and the statistical approach to understanding heat and thermal phenomena. Prerequisite: Physics 101 or 110 .

## 280 Programming and Simulation

A study of numerical simulation that includes learning an operating system (Unix), a programming language (Fortran), and some techniques of numerical analysis to solve problems useful in physics. Part of the course is devoted to learning a general-purpose computational tool (Mathematica). Computer Science 101 or a course in programming is highly recommended prior to taking this course. Prerequisite: Physics 120 (or Physics 102) or permission of the instructor.

## 292 Mathematics for Physical Science

An introduction to linear algebra, calculus of several variables, and differential equations with special emphasis on applications to linear and non-linear physical systems. Students who have received credit for any two of Mathematics 210, 290 and 320 will not receive credit for Physics 292. Does not count toward optional physics course. Corequisite: Mathematics 170.

## 310 Mechanics of Particles

A mathematical study of particles and systems of particles using Newton's laws of motion and Lagrangian and Hamiltonian dynamics.
Topics include forces, energy, and potential; gravitation and orbits; and momentum and collisions. Prerequisites: Physics 120 (or 102 with permission of the instructor) and Physics 292 or Mathematics 290 (or concurrent registration in Mathematics 290).

## 320 Astrophysics

A quantitative study of topics including celestial mechanics as described by Kepler's and Newton's laws, radiation in astronomy, telescopes, stellar spectra, star formation, the structure and evolution of stars, relativity, and big bang cosmology. Prerequisite: Physics 102 or 120, or permission of instructor. Offered alternate years.

## 330 Analog Electric Circuits and Devices

A study emphasizing AC/DC circuits, semiconductor devices, and analog circuits including amplifiers. One laboratory session per week. Prerequisites: Physics 102 or 120 and Mathematics 170. Computer Science 101 is recommended.

## 340 Electric and Magnetic Fields

A mathematical investigation of static and time-dependent electric and magnetic fields emphasizing vector differential operators. Laplace's, Poisson's, and Maxwell's equations. Prerequisite: Physics 120 (or Physics 102 with the permission of instructor) and Physics 292 or Mathematics 290.

## 350 Physical Optics

A study of geometrical, physical, and quantum optics. Topics may include the theory and applications of spectroscopy, lasers, fiber optics, and detectors, as well as an analysis of interference, diffraction, and polarization. One laboratory session per week. Prerequisite: Physics 102 or 120.

## 360 Introduction to Molecular Biophysics

An introduction to the physical foundations of biological molecules and processes. Topics include the fundamentals of molecular dynamics, transport processes in biological molecules, the physics of biological polymers/membranes, biological energy, membrane excitations, nerve impulses, and signal transduction. Physical methods such as resonance techniques and microscopy and their application to the study of biological molecules are also discussed. Prerequisites: Physics 210 and Chemistry 112, or permission of instructor.

## 370 Introduction to Solid State Physics

An introductory study of crystalline and amorphous materials including symmetry, crystal-binding, crystal-diffraction, phonons (Einstein- and Debye-models), free electron Fermi gas, Bose-Einstein theory, and superconductivity. Topics of current research interest such as computer simulation of amorphous materials, superlattices, and novel mechanisms of superconductivity are also included. Prerequisite: Physics 102 or Physics 120.

## 380 Quantum Mechanics

A study of the concepts of quantum mechanics with an emphasis on mathematical analysis. The course begins with an introduction to the Schrödinger equation and the formalism of quantum mechanics. Dirac representation, Hilbert space, and Hermitian operators are introduced. Quantum mechanical systems are compared with classical systems and discussed with respect to quantum mechanical uncertainty, time development, and conservation theorems. Various applications of quantum mechanics are considered. Prerequisites: Physics 210 or Chemistry 242 and Physics 292 or equivalent.

## 420-429 Current Topics in Astrophysics

An examination of selected current topics of interest in astrophysics, such as dark matter, dark energy, black hole formation, star cluster dynamics, stellar collisions, the mass of neutrinos, planetary formation, and gravity wave sources. Students contribute to the class through discussion and brief presentations. Group discussion is based on readings from journal articles and monographs. Prerequisites: Physics 102 or 120; and Physics 020, 129, or 320; or permission of instructor. Credit: Two semester hours. Offered alternate years.

## 430-439 Current Topics in Biophysics

An examination of a current topic of interest in biophysics. The course focuses on the molecular structure, energetics and dynamics of biological systems with an emphasis on physical spectroscopic techniques. Students contribute to the class through discussion and brief presentations. Group discussion is based on readings from journal articles and monographs. Prerequisite: Physics 210 or permission of instructor. Credit: Two semester hours.

## 440-449 Current Topics in Chemical Physics

An examination of a current topic of interest in chemical physics.
Students contribute to the class through discussion and brief presenta-
tions. Group discussion is based on readings from journal articles and monographs. Some laboratory work may be included. Prerequisite: Physics 210 or permission of instructor. Credit: Two semester hours.

## 450-459 Current Topics in Optical Physics

An examination of a current topic of interest in optical science. Students contribute to the class through discussion and brief presentations. Group discussion is based on readings from journal articles and monographs. Some laboratory work may be included. Prerequisite: Physics 210 or permission of instructor. Credit: Two semester hours.

## 460-469 Current Topics in Theoretical Physics

An examination of some theories that have revolutionized our understanding of nature and the universe. Students contribute to the class through discussion and brief presentations. Group discussion is based on readings from journal articles and monographs. Prerequisite: Physics 210 or permission of instructor. Credit: Two semester hours.

## 470-479 Current Topics in Computational Physics

An examination of theories and computational algorithms that have revolutionized our understanding of nature and the universe. Students contribute to the class through discussion and brief presentations. Group discussion is based on readings from journal articles and monographs. Prerequisite: Physics 210 or permission of instructor. Credit: Two semester hours.

## 480-489 Current Topics in Materials Physics

An examination of current topics of interest in materials physics, such as surface effects, fluid flow, tribology, and polymers. Students contribute to the class through discussion and brief presentations. Group discussion is based on reading from journal articles and monographs. Prerequisites: Physics 210 or permission of the instructor.

## 580 Junior Seminar

A seminar in which students, faculty, and guest lecturers make presentations on current topics in physics. The Junior Seminar has three goals: (1) to begin student preparation for the Senior Project, (2) to facilitate student awareness of the impact of physics on society, and (3) to inform the student of other areas of physics research. This is accomplished by becoming familiar with research in the department, giving an oral presentation on some aspect of physics and society, and preparing a written and oral review of research relevant to a prospective senior project. Students are also expected to attend department seminars. Credit: Two semester hours.

## 590 Independent Study

To be arranged. Credit: variable.

## 600 Senior Project I

The first in a sequence of two courses involving experimental and/or theoretical research under the direction of a faculty member. Background information is collected and preliminary work is carried out. Attendance at departmental lectures is required. Credit: Three semester hours.

## 610 Senior Project II

Completion of the senior research project. Students write reports and discuss their results at an oral presentation given for faculty members. In most cases they also present their findings at regional or national physics meetings and lectures. Taken after successful completion of Physics 600. Credit: Three semester hours.

## 620 Senior Project

Equivalent to the Physics 600-610 sequence and under special circumstances may be taken as an alternate to Physics 600 and 610. Permission of instructor required.

## Sophomore Seminar

## FS PHY 201 Communication in a Discipline:

Investigative Approaches in Phyics
An investigative laboratory course that emphasizes experimental design and analysis, interpretation of data, and written and oral presentation. This course stresses independent and cooperative laboratory work. Writing and speaking in the physical sciences is emphasized through written, oral and poster presentations. Prerequisite: Physics 120 or Physics 102.

# Political Science 

Professors Wesoky, Callen, Gehring, Harward, Kirschner, Maniates, Mattiace, Shea, Smith, Tamashiro

The Department of Political Science offers courses in Civic Engagement and Social Action, Culture and Politics, Globalization and Transnational Politics, Institutions and Processes, Policy Studies, and Problems in Democracy. These courses are designed to help students understand politics, political behavior, and political life and discourse, as well as the institutions and processes through which public policy is formed, in different political systems by: a) examining enduring value issues such as freedom, justice, equality, order, and power; b) exploring the practical and ethical implications of contemporary issues in public policy; c) providing alternative methodological approaches (quantitative, interpretative, dialectical, literary, cultural) to the analysis of politics; d) studying the great texts of political thought; and e) leading students to examine critically their own political beliefs and values and those of others.

## The Major

At graduation Political Science majors must present a GPA of at least 2.0 in the 46 (or, in some cases, 45) semester hours of required Political Science coursework. All courses toward the major taken at Allegheny College are included in the calculation of grade average, with the exception of repeated courses for which only the most recent grade counts. Students other than transfer students may present a total of 16 semester hours toward the major on a Credit/No Credit basis from a) courses taken at other approved institutions or b) specially arranged internships. Any additional credits beyond the 16 -credit limit must be approved by the department chair. All other courses must be graded. One AP course (U.S. Politics or Comparative Politics) will be accepted on a Credit/No Credit basis as a substitute for the department's introductory course, but cannot be used to satisfy the department's subfield distribution requirement described below.

A major in Political Science leads to the Bachelor of Arts degree and requires the successful completion of 46 semester hours ( 45 for some double majors) of coursework in Political Science. All majors must present one introductory course from Political Science 110, 120, 130, 140. Two introductory courses may count toward the major. Students must complete one junior seminar from Political Science 580586; generally five junior seminars of varying topics are offered each year. Students must complete the segmented senior project (Political Science 600,610 ) six credits total. Both Political Science 605 and 610 are taken on a graded-basis only.

From the following, all majors must complete three courses each in two categories. Double counting of courses (for some courses fall into more than one category) is permitted.

## CIVIC ENGAGEMENT and SOCIAL ACTION

Political Science 217 - Women, Suffrage, Political Participation
Political Science 272 - Globalization and Gender
Political Science 317 - Political Parties and Elections
Political Science 323 - Environmental Policymaking in the United States
Political Science 348, 349 - Studies in Community Activism I, II (both required)
Political Science 460-Global Environmental Politics

## CULTURE and POLITICS

Political Science 215 - The Politics of Mass Culture
Political Science 221 - Law and Society
Political Science 228 - Government and Politics of China
Political Science 232 - Government and Politics of the Middle East
Political Science 244 - The Politics of Memory
Political Science 261 - United States - Latin American Relations
Political Science 285 - American Political Thought
Political Science 326 - Sports and the Politics of Race and Nation
Political Science 329 - Islam, Migration \& Race in Western Europe
Political Science 332 - Government and Politics of Latin America
Political Science 336 - Politics and Culture in the Asia-Pacific
Political Science 355 - The Arab-Israeli Conflict
Political Science 391 - Politics and Literature
Political Science 450 - The Politics and Psychology of Persuasion and Prejudice
Political Science 457 - National Security Controversies
Political Science 482 - Race and the American Political Mind
Political Science 484 - American Conservatism
GLOBALIZATION and TRANSNATIONAL POLITICS
Political Science 226 - Government and Politics of Western Europe
Political Science 240 - Political Economy
Political Science 242 - Immigration and Citizenship
Political Science 244 - The Politics of Memory
Political Science 245 - The Politics of Third World Development
Political Science 251 - U.S. Foreign Policy
Political Science 261 - United States-Latin American Relations
Political Science 272 - Globalization and Gender
Political Science 325 - Rights in Comparative Perspective
Political Science 326 - Sports and the Politics of Race and Nation
Political Science 329 - Islam, Migration \& Race in Western Europe
Political Science 354 - War and Peace in the Middle East
Political Science 355 - The Arab-Israeli Conflict
Political Science 427 - The European Union
Political Science 459 - Civil Wars
Political Science 460 - Global Environmental Politics
INSTITUTIONS and PROCESSES
Political Science 217 - Women, Suffrage, Political Participation

Political Science 221 - Law and Society
Political Science 226 - Government and Politics of Western Europe
Political Science 228 - Government and Politics of China
Political Science 232 - Government and Politics of the Middle East
Political Science 240 - Political Economy
Political Science 255 - Law, Politics and Society in Comparative Perspective
Political Science 272 - Globalization and Gender
Political Science 301 - U.S. Constitution: Interpretation and
Development
Political Science 317 - Political Parties and Elections
Political Science 318 - Politics and the Media
Political Science 320 - State and Local Politics
Political Science 321 - Urban Government and Politics
Political Science 324 - Environmental Protection and Institutional Change
Political Science 327 - Political System of Germany
Political Science 332 - Government and Politics of Latin America
Political Science 354 - War and Peace in the Middle East
Political Science 412 - U.S. Congress
Political Science 413 - U.S. Presidency
Political Science 427 - The European Union
Political Science 457 - National Security Controversies
Political Science 459 - Civil War
Political Science 460 - Global Environmental Politics

## POLICY STUDIES

Political Science 191 - The Politics and Policies of Education Reform
Political Science 211 - Women and Public Policy
Political Science 213 - Health Policy in the U.S.
Political Science 242 - Immigration and Citizenship
Political Science 251 - U.S. Foreign Policy
Political Science 255 - Law, Politics and Society in Comparative Perspective
Political Science 261 - United States-Latin American Relations
Political Science 303 - Civil Rights and Liberties
Political Science 323 - Environmental Policymaking in the United States
Political Science 324 - Environmental Protection and Institutional Change
Political Science 325 - Rights in Comparative Perspective
Political Science 450 - The Politics and Psychology of Persuasion and Prejudice
Political Science 453 - Deterrence Theory and Nuclear Defense
Political Science 457 - National Security Controversies
Political Science 489 - Statistics and Data Analysis

## PROBLEMS in DEMOCRACY

Political Science 217 - Women, Suffrage, Political Participation
Political Science 242 - Immigration and Citizenship
Political Science 244 - The Politics of Memory
Political Science 285 - American Political Thought
Political Science 303 - Civil Rights and Liberties
Political Science 318 - Politics and the Media
Political Science 325 - Rights in Comparative Perspective
Political Science 329 - Islam, Migration \& Race in Western Europe
Political Science 332 - Govt. and Politics: Latin America
Political Science 336 - Politics and Culture in the Asia-Pacific
Political Science 380-Classical Political Thought
Political Science 382 - Modern Political Thought

Political Science 459 - Civil War
Political Science 484 - American Conservatism

## The Minor

The minor field program in Political Science requires a minimum of 20 semester hours of coursework, including one of Political Science 110, 120, 130, 140 and four elective courses from Political Science 190 through 586. Two of the four elective courses must be at the 300 -level or above. All courses for the minor must be taken on a graded basis. Students who wish to declare a minor should see Professor Wesoky.

Major programs may be arranged in combination with other departments. Students who are interested in double majors, or in creating a student designed major, should see Professor Wesoky. Students who wish to declare either a major in Political Science or a combined major involving Political Science should obtain a copy of the junior-senior program from the department. All such department majors must follow this program. Students are encouraged to discuss with their academic advisors those cognate courses that should be scheduled to enhance the particular focus of the Political Science or combined major they select.

Political Science majors who are anticipating application for the Washington Semester, Washington Center, or other ACCEL programs should discuss these plans with their advisor as soon as possible. Those wishing to study abroad or to declare an International Studies major should contact Professor Mattiace. All students who wish to take part in an internship should speak with their advisors and the department liaison referred to in the internship descriptions below. Students may offer a maximum of eight semester hours of coursework from internships.

## 110 U.S. National Government and Politics

An introduction to national political institutions in the United States: The Presidency, Congress, Supreme Court, and administrative agencies. Attention is given to citizen participation, elections, political parties, interest groups and public policy making.

## 120 Comparative Government and Politics

An introduction to the development of political institutions and the distribution and exercise of political power in selected western, communist and "Third World" countries. Special attention is devoted to the impact of institutional and cultural patterns upon the quality of life in those countries.

## 130 World Politics

An introduction to politics among nation-states and the conduct of international relations. Topics addressed include the dynamics of war and peace, international law and diplomacy, state and non-state actors in international relations, and transnational economic and environmental issues.

## 140 Political Philosophy

An introduction to political theory with special emphasis on the problem of justice. Topics include human nature and politics, justice and the best way of life, and the possibility of a just society. Readings are drawn from the work of political philosophers, social theorists, and literary figures such as Plato, Aristotle, Hobbes, Locke, Marx, Freud and Dostoyevsky.

## 211 Women and Public Policy

An introductory analysis of the relationship among women, politics, and policy in the United States, focusing on several specific policy areas that affect women in a political world where most of the policy players are male. Topics include, but may not be limited to, education, equal
employment, criminal justice, sexual harassment, economic equity, caregiving, health care and family law. This course assesses changes in public policy to meet the evolving roles and status of women and key legislation affecting women's quest for full equality.

## 213 Health Policy in the U.S.

An examination of the origins, status, and future of health care policies, with a focus on the history of the U.S. health care system and attempts at reform. Special topics to be explored include outbreaks of infectious diseases, the euthanasia movement, funding of medical research, the economic behavior of pharmaceutical companies, and food and nutrition policy. Prerequisites: Political Science 110. Recommended but not required

## 215 The Politics of Mass Culture

An examination of the subtle, yet powerful intersection of popular culture and politics. A core premise of the course is that how we spend our free time may mold expectations, world views, and attitudes toward others. Political themes can be found in sports, music, literature, television, film, and virtually every form of leisure activity. This course explores these themes and how they shape American politics.

## 217 Women, Suffrage and Political Participation

Political participation of women in the United States, from their nineteenth-century fight for suffrage to their current political activities. Employing both cultural and intitutional analyses, topics include: how race and class affected women's suffrage quests, how women were finally enfranchised, and why all women did not support the Nineteenth Amendment. In addition, the course studies voting behavior, office holding, and political activity, as well as media coverage of female politicians, campaign issues and funding, and the influence of women on policy-making.

## 221 Law and Society

An examination of the relationship between society and law. To define "law" the course draws on legal anthropology (and the function of law in primitive societies) and representative schools of jurisprudence. The course emphasizes the role of courts in shaping law and making public policy as well as the administration of criminal justice by police, prosecutors, judges and attorneys. An analysis of major issues with legal implications (such as abortion, death and dying, environment, drugs and alcohol, family relations, psychiatry and the law) is offered. The course concludes with methodological innovations in studying judicial decision-making.

## 226 Government and Politics of Western Europe

An introduction to Western Europe comparing societies, cultures and political institutions. Diverse historical experiences are the background to an analysis of post-war and contemporary issues such as European integration; the welfare state; the evolution of party politics; NATO and changing security issues; and immigration and nationalism.

## 228 Government and Politics of China

An overview of government and politics in 20th-century China, with a stress on state-society relations. A major focus of the course rests on the post-Mao period and questions such as economic reform and the Tiananmen Square student movement and prospects for democracy. Other topics will include women's issues, population and environmental issues, and China's foreign relations. The course draws on autobiographical, journalistic, and cinematic sources as well as text-based readings to chart Chinese politics in this century.
232 Government and Politics of the Middle East

An examination of political trends in the Middle East and North Africa, focusing on issues such as state-society relations, secular-religious tensions, the role of oil wealth, and the status of women. Case studies of several representative states are included.

## 240 Political Economy

An examination of the interdependence between economics and politics in the international arena. Fundamental concepts and theories are drawn from the works of Smith, Ricardo, Marx and dependency theorists. Utilizing these ideas, students examine the changing U.S. position in the international political arena.

## 242 Immigration and Citizenship

An exploration of the large-scale immigration reshaping the political, social, and cultural fabric of Western Europe and North America. Case studies of several countries (e.g., France, Germany, the United States, and Mexico) are used to examine the historical foundations of citizenship, focusing on legal and cultural dimensions, such as race and national identity, border control, and the limits of globalization.
Students also examine the extent to which contemporary immigration patterns are distinct from previous immigrant waves.

## 244 The Politics of Memory

An examination of how newly democratic nations come to grips with periods of political violence. Since the end of the Cold War, dozens of nations around the world (e.g., Argentina, South Africa, Rwanda, Serbia) have struggled with the question of whether to forgive perpetrators of violence or seek justice for victims. Through novels, films, individual testimonies, case studies, and truth commission reports, we examine the moral, legal, and political consequences of remembering and forgetting.

## 245 The Politics of Third World Development

An introduction to the ongoing struggle over the economic and political "development" of Third World nations. Since the end of World War II, the poorer or so-called "Third World" or "developing" countries of the world have sought to develop their economies and political systems. Despite formidable application of resources and expertise, however, so much has seemingly gone wrong: international debt mounts, poverty deepens, environmental systems deteriorate, population grows, famine continues, and the pernicious gap between rich and poor widens. Why is this so and, given the prevailing distribution of power and influence, what can be done? These questions are explored with particular reference to the domestic and international politics of Asia and Africa and special attention to emerging policy alternatives. This course is particularly well-suited to first- and secondyear students with little or no training in political science.

## 251 U.S. Foreign Policy

An examination of the factors that condition the formulation and conduct of U.S. foreign policy. These factors include: the general political, cultural, and economic conditions within the U.S.; various governmental agencies with responsibility for foreign affairs; nongovernmental groupings that affect the scope, direction, and efficacy of U.S. foreign policy; international organizations; and the policy-making process itself.

## 255 Law, Politics and Society in Comparative Perspective

An introduction to the study of comparative law, politics and society. Students study law as a cultural object and as a social science subject and will learn to relate law to the political systems and cultural settings within which law is created, constructed, interpreted and enforced. We consider "the law" in a variety of states such as China, the U.S., Great

Britain, Canada, France, Japan, Germany, and South Africa through class readings, lectures, discussions, and debates.

## 261 U.S.-Latin American Relations

An analysis of United States-Latin American relations over time, with a special emphasis on the post-Cold War period. The central question to be addressed is whether there will be greater harmony between the two regions now that the threat of communism has disappeared or if there will be increased conflict because of the exponential rise of drug trafficking, migratory pressures, growing economic disparity and increasing environmental pressures. An examination of historical case studies will provide students with the requisite background for assessing current issues.

## 272 Globalization and Gender

An exploration of the processes and consequences of globalization, with a focus on how they are gendered. After a general discussion of economic globalization and its ramifications for politics, society, and culture, we assess feminist analyses and critiques of globalization to examine its effects on women in various geographic locations and socioeconomic conditions. Through case studies of issues such as labor, political mobilization, urbanization, and cultural production, we consider how women's experiences of globalization can be both exploitative and empowering.

## 285 American Political Thought

An analysis of selected classics of American political theory from the first settlement throughout the founding of the Republic up to the present. Texts are drawn from the works of theorists and commentators such as Winthrop, Paine, Hamilton, Madison, Jefferson, Lincoln, Tocqueville, Henry Adams, Chesterton and Lippmann, as well as from the work of literary figures such as Hawthorne, Melville, Twain and Faulkner.

## 301 U.S. Constitution: Interpretation and Development

Interpretation of the U.S. Constitution from its ratification (1788) through the "Constitutional Revolution of 1937." This basic course in constitutional law examines significant Supreme Court cases involving judicial review and power, federalism, state police powers, the commerce clause, and substantive due process of law. All students write case briefs (summaries). A research paper emphasizes modes of constitutional interpretation.

## 303 Civil Rights and Liberties

The constitutional interpretation of civil rights and liberties, with emphasis on the Bill of Rights and Warren, Burger and Rehnquist Court cases, and an examination of landmark Supreme Court decisions. Topics include: speech, press, expressive conduct, obscenity, church and state, minority rights, apportionment, gender discrimination, privacy, abortion, "right to die," and the rights of accused persons. Students participate in a moot court decision, arguing a case currently pending before the U.S. Supreme Court.

## 317 Political Parties and Elections

An analysis of party organizations, campaigns, and presidential and congressional politics in the United States. Attention is given to state and local party structures and activities, third party movements, and patterns of voting behavior. Offered every other year.

## 318 Politics and the Media

An examination and evaluation of the role of mass media in American politics. Topics include: the legal framework that enshrouds freedom of the press, the newsmaking process, sources of potential bias, the development of investigative journalism, corporate ownership of the media, the role of the press in elections, the impact of mass media on
individual behavior and opinion formation, and the politics of entertainment, concluding with an exploration of the process by which the media have become a tool, indeed a weapon, in the contemporary U.S. political process. Recommended: Political Science 110.

## 320 State and Local Politics

An examination of the interaction among state and local governments, representatives, institutions and policies. Topics include gubernatiorial policy roles and arenas, the state legislative process, the challenge devolution plays for state and local governments, the role of parties in candidate-focused elections, and interest group organization.

## 321 Urban Government and Politics

An examination of the political institutions and the policy-making processes in American cities. Emphasis is on the impact of historical and social conditions, institutional arrangements, and power relationships on significant problems facing urban areas, including metropolitan organization, taxing and spending, law enforcement, education, social welfare and housing.

## 323 Environmental Policymaking in the United States

An exploration of U.S. environmental policy. Topics include key U.S. environmental policies, regulatory politics at the state and federal level, risk assessment, and competing models of environmental policymaking. Analysis of contemporary policy debates over air, water, energy, waste, and agriculture is also emphasized. Prerequisite: Sophomore status or above.

## 324 Environmental Protection and Institutional Change

(also listed as Environmental Science 347)
An inquiry into how key elements of core U.S. institutions (e.g. the market, the State, the corporation, public education) frame and confront environmental issues, and how impediments to thinking creatively about these institutions exacerbates problems of environmental sustainability and responsive democracy. We pay particular attention to the State: what it is, why it may be a useful unit of analysis, how and why (from competing theoretical perspectives) it chooses to confront environmental ills, and how citizens can most effectively influence it. Although the organizing case study for the course is U.S. environmental policy, students generally interested in analyzing core U.S. institutions with any eye to influencing them will find the course useful.

## 325 Rights in Comparative Perspective

A comparison of legal and political rights throughout the world. We focus on the differences between negative and positive rights, the role of the state in defining and guaranteeing rights, and the spread of "American-style" rights (e.g., rights demanded of the government via the courts that influence social policy) and law-focused social movements throughout the rest of the world. States to be considered include China, the European Union, Germany, India, Japan, Canada, and the United States.

## 326 Sports and the Politics of Race and Nation

A comparative study of the intersection of politics and sports focusing on how sports programs, teams, and fans influence, reinforce, and/or challenge political power. Themes include the relationship between racism and sports; the role of sports in nationalism; how sports are used to resist, or promote, colonialism; how the relaxation of naturalization requirements for athletes can influence immigration policies for nonathletes; how sporting events help forge a national community among diverse peoples; and the impact of globalization on sports. Countries that might be studied include the United States, India, Argentina, Germany, New Zealand, and Japan.

## 327 The Political System of Germany

An introduction to the political system of Germany, with emphasis on actual, daily political events and the current political climate in Germany. Both foreign and domestic issues are discussed, including topics such as East/West relations, disarmament, unification, the environment and Neo-Nazism. Class time is divided between lecture and discussion of outside readings. (Taught in Cologne.)
329 Islam, Migration \& Race in Western Europe
An interdisciplinary immersion into debates over identity, nationalism, citizenship, religious freedom, immigration, freedom of expression, racism, and secularism in Europe. Students explore how different cultures construct racial hierarchies, how religious identification and racialized categories bleed into one another, and how individuals and groups respond to discrimination and subvert and redefine religious and racial identities in Europe.

## 332 Government and Politics of Latin America

An examination of broad themes in Latin American politics including the region's colonial legacy, the relationship between economic and political power and structures, and the tensions of class, race, and gender. The course focuses on key issues confronting Latin American nation-states today such as authoritarianism, corporatism, international debt and dependency and revolution. The course also looks at the attempts of important political actors such as the church, the military and other political movements to deal with these issues.

## 336 Politics and Culture in the Asia-Pacific

A survey of politics in the East Asian region-including China, Japan, Korea, and Southeast Asia, with an emphasis on cultural legacies and their effects on contemporary political structures and processes. Using literature and film as well as textual sources, this course will examine the unique political and economic development of this region. Questions to be addressed include: Why have parts of Asia experienced such economic success but also economic downturns? How can we understand claims that Asian culture is incompatible with democratic forms of governance? What are the ways that citizens in these areas seek to make their political voices heard?

## 354 War and Peace in the Middle East

An examination of several types of conflicts - including revolutions, civil wars, interstate wars, and interventions - in the Middle East. Theories of each type of conflict are applied to specific cases. Peace processes are also analyzed and discussed in the context of resolving current regional crises. Through course readings, drawn from popular nonfiction, mainstream journals, and field-specific journals, students gain basic literacy in both qualitative and quantitative approaches to political science. Prerequisite: Political Science 232 recommended.

## 355 The Arab-Israeli Conflict

An examination of the history of Israeli-Arab relations from the late 19th century, with a focus on understanding why the conflict has been so intractable and the role played by third parties. Students read primary and secondary sources to explore both the historical background to the conflict and a wide range of perspectives on key issues. Prerequisite: sophomore standing or higher recommended.

## 380 Classical Political Thought

An analysis of selected texts from among the political theorists of antiquity with special attention paid to such themes as the nature and purpose of political life, the meaning of citizenship, problems peculiar to political action, and the character of the best regime. Readings are drawn from the
works of dramatists, historians and philosophers such as Aeschylus, Sophocles, Thucydides, Plato and Aristotle. Recommended: Political Science 140 or Political Science 285.

## 382 Modern Political Thought

A study of selected modern political theorists, such as Machiavelli, Hobbes, Locke, Montesquieu, Rousseau, Burke, Tocqueville and J. S. Mill. Themes treated include the creation of the modern state and the meaning of sovereignty, the development of individualism and liberalism, the relation of the individual and the community, and the meaning and dynamics of democracy. Recommended: Political Science 140 or Political Science 285.

## 391 Politics and Literature

(also listed as English 391)
A team-taught course that examines the intersection of politics and literature in a given situation. While the specific topic may change from year to year, the course seeks to transcend the disciplinary borders between Political Science and English by exploring the vital connections between system and story at a given historical moment. The course may be taken for credit in either Political Science or English. Prerequisite: Permission of the instructors.

## 412 U.S. Congress

An examination of the functions, rules, customs and procedures of the United States Congress. Topics include the relationship between the national legislature and other governmental institutions, as well as between Congress and the electorate and the lobbyists. Also taken up is an analysis of informal groups, the committee system, the leadership structure, and proposals for legislative reorganization.

## 413 U.S. Presidency

The changing conceptions and interpretations of the presidential institution and the styles and strategies of the American presidents. Topics include the selection process; the executive advisory system; and the relationship between the President, the press, the Congress and the public. Also covered are decision-making in the White House and the powers, tenure and accountability of the President.

## 427 The European Union

An introduction to the institutions and politics of the European Union. Topics include the history and development of the EU, the extent of Europeanization in particular policy areas such antidiscrimination and monetary union, whether or the EU is a democratic institution, and the possible ascension of new member states such as Turkey.

## 450 The Politics and Psychology of Persuasion and Prejudice

An examination of issues in political psychology connected with persuasion and prejudice. The course will focus on topics of particular relevance to U.S. foreign policy and international politics such as political perception, propaganda, social-cultural explanations of economic prosperity, racism, and ethnocentricism. Completion of Political Science 251 is recommended but not required.

## 453 Deterrence Theory and Nuclear Defense

An examination of nuclear deterrence theories and their theoretical, political, technological and ethical problems. A historical and doctrinal review will be presented covering the impact of nuclear weapons on U.S. military and political affairs. Specific issues to be treated include nuclear proliferation, ethical dilemmas of nuclear deterrence, nuclear winter theories, inadvertent war, nuclear waste problems, nuclear abolition, and human radiation experiments. Political Science 251 is encouraged but not required.

## 457 National Security Controversies

An examination of contemporary controversies relating to national security. A brief overview of the field will be presented, followed by an exploration of key political, social, psychological, and technical problems facing the defense establishment. Specific issues to be treated are the role of women in combat, the growing rift in civil-military relations, the challenge of technological complexity in war, and contending views on the nature of future wars. Political Science 251 is encouraged but not required.

## 459 Civil Wars

An analysis of why civil wars occur, when they become prolonged, how they end, and other major questions relating to this increasingly common type of conflict. Students apply theories on civil wars to explain the dynamics of specific conflicts and draw on knowledge of specific cases to refine existing theories. Topics include: competition for natural resources, ethnic conflicts, mass killing and other humanitarian implications of civil wars, and the roles of third parties in conflict resolution. Prerequisite: Prior coursework in Political Science is strongly recommended.

## 460 Global Environmental Politics

(also listed as Environmental Science 431)
An analysis of several global environmental issues and how these issues have shaped, and are shaping, domestic and international political relations. Special attention is devoted to international conferences and the forging of international environmental agreements. Future policy prospects and political dynamics also are discussed. Prerequisite: Prior coursework in international relations (e.g. Political Science 130, 240, 245 or 251) is strongly encouraged.

## 482 Race and the American Political Mind

An exploration of the psychological, cultural and ethical implications of racism in a political order dedicated to the principle of human equality. Notable among such implications is what Ellison described as the ethical schizophrenia of the American mind. Readings will be drawn from the works of political theorists, social critics, and novelists such as James Baldwin, J.W. Cash, W.E.B. DuBois, Ralph Ellison, William Faulkner, Harriet Jacobs, Toni Morrison, Shelby Steele, Richard Wright and Cornel West.

## 484 American Conservatism

An examination of conservative political theory since World War II and its relation to the emergence of a new American Right. The course focuses on four moments: the role of post-war anti-communism in revitalizing remnants of various other conservatisms, the consolidation of these disparate traditions, especially under the rubric of William F. Buckley's National Review, reaction to the sixties and the emergence of neo-conservatism, and finally, the rise of Right-wing populism. Recommended: Political Science 285.

## 486 The Death and Life of American Liberalism

An examination of the evolution of American liberalism. Themes include the emergence of liberalism against the background of $19^{\text {th }}$ century industrialism and the erosion of an earlier civic equality, the ascendancy of the liberal idea from the New Deal through the Great Society, the eventual loss of a coherent vision, and renewed prospects for an enduring liberal revival. The inquiry is framed by the question of the fate of American liberalism, its characteristic strengths and weaknesses, its dilemmas and myopias, and its roots in the American political tradition.

## 489 Statistics and Data Analysis

Techniques of quantitative analysis of social and political data. Topics include measurement, scaling, description, sampling, inference, and research design. Emphasis is on measures appropriate to nominal and ordinal variables and non-parametric techniques. Students will use the Statistical Package for the Social Sciences for computer analysis of archival data. Prerequisites: the successful completion of Mathematics 110 or 150, or placement in mathematics courses above that level as determined by the Mathematics Placement Test, or permission of the instructor. All students planning to pursue any form of graduate education are advised to take this course.

## 491 Environmental Law

Designed to introduce students to the fundamentals of environmental law. An overview of the U.S. legal system is covered with consideration to the origin and authorities for environmental laws. Students are exposed to major federal statutes and explore the relationship and effect of those statutes on individual states (using Pennsylvania as a model), on industry and on citizens in general. Although a basic understanding of the U.S. legal system and administrative law would be of great benefit, there are no prerequisites.

## Undergraduate Internships

## 500 Internship

Credit-bearing internships are available through the Political Science Department, often in coordination with ACCEL. Credit, and work done to earn such credit, is at the discretion of the supervising faculty member. Typically, internships for credit are offered during the summer. Students should consult with the relevant faculty member for information, approval, and requirements.

## 520 Internship in Environmental Law and Regulation, Office of Chief Counsel, Northwest Region, Department of Environmental Resources, Commonwealth of Pennsylvania

Liaison: Professor Seddig
An internship that acquaints the student with the basics of legal research and writing. Phase One is conducted as a small class, concentrating on, but not limited to, environmental regulation. A second phase of the internship (available to a more limited number of students each semester) focuses on the civil and criminal aspects of environmental law and regulation in Pennsylvania. Prerequisites: Approval of the faculty liaison, as well as basic familiarity with the U.S. legal system. An interview with a lawyer in the Office of Chief Counsel is required, as is Environmental Science 110. At least one course from Political Science 221,343 or 347 is recommended. Phase One: Two semester hours. Phase Two: The student contracts for semester hour credit, generally two hours. Credit/No Credit basis only.

## 580-586 Seminars

A Political Science major or minor will satisfy the seminar requirement by taking a seminar in the Political Science 580-586 series. If possible, the selection should be the seminar in the general area in which the student expects to do a Political Science Senior Project. It is recommended that the seminar selected for this purpose be taken in the junior year or, at the latest, in the first semester of the senior year. A major may take more than one seminar; one of them may be counted toward some other Political Science Department requirement. The Political Science 580-586 seminars may be taken by non-majors with permission of the instructor. All seminars offered by the department are designed to expose students to methods of analysis and current research findings
drawn from a subfield within Political Science. A research paper is required. Permission of instructor is a prerequisite for enrollment in all seminars. The topics for 2011-2012 are listed below.

## 580 Seminar in U.S. Politics

A written proposal is to be submitted to the professor prior to the semester in which the course will be taken. Prerequisite: Approval of the instructor from whose area the study is chosen. One to four semester credit hours.

## 600 Senior Project Proposal

Required of all majors in preparation for the writing of the Senior Project. The course, which may be taken either during the spring of the junior year or the fall of the senior year, results in the writing of a specific Senior Project proposal that is presented in conference to a two-person faculty committee. Graded basis only. Credit: Two semester hours.

## 610 Senior Project

The Senior Project will be written in the semester following the 600 course. The project is supervised, read, and evaluated by a two-person faculty examining committee. Prerequisite: Political Science 600.

## Sophomore Seminars

## FS POL 201 Communication in a Discipline

## Law, Courts, and Social Change

An introduction to writing and speaking in the discipline of Political Science. The popular understanding of the legal system in the U.S. holds that courts are-for better or worse-uniquely positioned to bring about social change. Many disadvantaged groups have gone to the courts to secure the rights denied them by the political branches of government. In this discussion-oriented examination of courts as agents of social reform, we see that studies have shown that-in addition to legal resources-institutional factors, judicial ideology, litigant type, and local political culture can affect the outcome of cases involving disadvantaged groups.

## Psychology

Professors Searle-White, Clark, Coddington, Conklin, Cross, DeLamarter, Dickey, Güngör, Hancock, Heuchert, Hollerman, Knupsky, C. Lockridge, Ozorak, Paulson, L. Petasis, Rutledge, Saltsman,

Psychology is a field of inquiry devoted to understanding human thought and behavior. Although largely concerned with the study of humans, other animals are studied as well, often with specific interest in comparing their behavior to that of humans. Psychology is a blend of paradigms or ways of understanding. Some approaches view psychology as a science, while others emphasize the applied, eclectic nature of the discipline. Psychology has its roots and shares its goals with many neighboring fields such as philosophy, physiology and sociology. The Psychology Department faculty reflects the diverse nature of the discipline by representing a wide range of conceptions and interests in psychology.
Courses in the department address issues such as how our biological nature prepares us for the ways in which we behave; the impact of developmental tasks on our conceptions of who we are; the ways in which we learn, perceive, and remember; how individual differences develop and shape our lives; and the extent to which we are susceptible to social influences. The major program is designed to provide both breadth and depth in the field. Students take coursework in the basic principles and methods of psychology and from the major subfields. In addition, advanced courses provide in-depth work in areas of particular interest. The major in Psychology is designed to support students who wish to pursue the major as a liberal arts focus as well as those who plan to enter graduate school.

## The Major

Psychology majors are required to have a GPA of at least 2.0 in Psychology at graduation. Only Psychology courses taken at Allegheny on a letter grade basis and only the most recent grade for repeated courses are included in the calculation. All psychology courses are counted in the calculation; exceptions can be granted only by petition to the department.

The major field program in Psychology leads to either the Bachelor of Arts or the Bachelor of Science degree. Students may elect to receive either degree. Both degrees require the successful completion of the following:
A. Research Design and Statistics (Psychology 206-207);
B. One course from each of the three Core Area Categories: Basic Processes (Psychology 150-159)

Human Processes (Psychology 160-169) Individual Differences (Psychology 170-179);
C. Two four-credit courses from those numbered in the 300s or 400s;
D. FS PSY 201 or one additional four-credit elective in Psychology;
E. A Junior Seminar (Psychology 550-589);
F. A Senior Project (Psychology 600/610, 620 or 630).

The major in Psychology requires the completion of a minimum of 40 semester hours. Psychology majors are encouraged to take FS 201 within the Psychology department. FS 201 in Psychology (the Sophomore Seminar) may be counted toward the major. No courses counted for the major may be taken on a Credit/No Credit basis.

## The Minor

Psychology minors are required to have a GPA of at least 2.0 in Psychology at graduation. Only Psychology courses taken at Allegheny on a letter grade basis and only the most recent grade for repeated courses are included in the calculation. All psychology courses are counted in the calculation; exceptions can be granted only by petition to the department.

The minor field program in Psychology requires the successful completion of a total of five courses ( 20 smester hours):

1. FS PSY 201 or any $\mathbf{1 0 0}$ level psychology course;
2. Psychology 206;
3. One course from each of two Core Area Categories:

Basic Processes (Psychology 150-159)
Human Processes (Psychology 160-169)
Individual Differences (Psychology 170-179);
4. One course from those numbered in the 300s or 400s.

No courses for the minor may be taken on the Credit/No Credit basis. Students majoring in Neuroscience may not minor in Psychology.

## Introductory Courses

These courses are designed to serve as an entry to the field of Psychology. Each course introduces psychological principles and applications.

## 102 Sex and Gender

A study of the impact of sex and gender on human experience, including relationships, well being, and role prescriptions. The validity of stereotypical assumptions about differences between females and males is examined. Models of gender socialization contrasting the relative importance of biology and culture are considered. Particular emphasis is given to the interactions among gender, status, and role expectations.

## 103 Drugs and Society

This course provides an overview of basic pharmacological principles, discusses behavioral and physiological mechanisms of action of several classes of medicinal and recreational drugs, and surveys the factors thought to contribute to responsible and irresponsible drug intake.

## 105 Foundations of Psychology

An introduction to five major sub-areas of psychology: human development, learning and memory, motivation and emotion, social behavior, and individual differences. Students become acquainted with the major methods of data collection such as laboratory experiments, field and case
studies, and observation; with important theories including the behavioral, biological, cognitive, psychodynamic, and humanistic points of view; and with findings of each sub-field. Important concepts are exemplified by a study of selected topics and applied issues within each of the five areas.

## 106 Educational Psychology

An introduction to the psychological theories that have influenced educational thought and shaped educational practice in American schools since the turn of the 20th century. Topics include Piaget's theory of cognitive development, Vygotsky's socio-cultural theory, behaviorism, information processing theory, constructivism, motivation and learning theory. Case studies and re-enactions of classroom scenarios are used to explore how each theory is applied in educational settings and to brainstorm solutions to educational problems.

## 108 Psychology of Consciousness

An exploration of the psychology of consciousness. Topics include such phenomena as attention, working and episodic memory, imagery and dissociation (hypnosis, out of body and near death experiences), reality vs. imagination, unconsciousness in sleep, anesthesia and waking (skills, language, creativity), and self-consciousness and self-perception.

## Core Courses

These courses are designed to provide an introduction to the major subareas of psychology. Although introductions, they also provide foundation in a specific area of theory and research within the general framework of psychology. Core courses are grouped in three categories; majors are required to take one course from each category.

## Category A: Basic Processes

## 150 Sensation and Perception

An introduction to the phenomena and sensory processes that play a role in human visual and auditory perception. Topics include light and the visual pathways, contrast and contours, motion and space perception, color, depth and size, as well as perceptual development and learning. In addition, sound, the physiology of the auditory system, and language perception are examined. Particular concern is directed to the role of physiology and information processing models in understanding human perception. Extensive laboratory experiences that replicate some of the most important and often cited research in sensory and perceptual psychology are included as part of the course requirements. One laboratory period per week.

## 152 Behavioral Psychology

A study of basic processes and concepts in the conditioning and learning of human and nonhuman behavior, including acquisition and extinction, stimulus discrimination and generalization, avoidance and punishment, biological constraints on learning, and the role of motivation in lerning. Theoretical trends in issues such as mediation, attention, memory, and concept learning are also discussed. Clinical and educational applications of basic principles of learning are explored. In addition, laboratory operant conditioning studies are conducted. Two 50minute lectures and two laboratory periods per week.

## 154 Physiological Psychology

An examination of the relationships between brain function and behavior and the various methods by which physiological psychologists study these relationships. Content areas include basic neuronal physiology and brain anatomy, neural/endocrine interactions,
methods in physiological psychology, control of movement, sexual development and behavior, sleep, ingestive behaviors, learning and memory, and physiological correlates of psychopathology. Corequisite: Psychology 155.

## 155 Physiological Psychology Lab

Introduction to the basic methods of brain investigation in physiological psychology via a set of experiments involving surgical and histological preparations. Designed to complement materials discussed in Psychology 154. One laboratory period per week. Corequisite: Psychology 154. Credit: Two semester hours.

## Category B: Human Processes

## 160 Life Span Developmental Psychology

Theory and methods of understanding the nature of human development over the life span are compared and evaluated. Individual development is studied as a function of biological, social, and psychological factors. Life stages are examined and differences in individual experiences are evaluated in relation to social systems, such as family and community. Continuity and change are considered in terms of personality, identity, and roles. Cultural diversity in accomplishing developmental tasks is emphasized.

## 162 Human Social Behavior

Social psychology is the study of how the individual affects and is affected by social situations. This course surveys the major topics, theoretical models, and applications in this area of psychology. Included are attribution, attitudes, interpersonal attraction, social influence, groups, aggression and sex roles.

## 164 Cognitive Psychology

The study of human mental processes, including attention, perception, memory, language and problem solving. Course content includes cognitive strengths, such as creativity and expertise, and weaknesses, such as biases and mindlessness. Differences related to gender, age and culture are also considered.

## Category C: Individual Differences

## 170 Abnormal Behavior

An introduction to concepts and contemporary categories of abnormal behavior from several points of view: biological, behavioral, cognitive, psychodynamic and humanistic. Additional topics include consideration of how theoretical orientations guide contemporary research and reflect therapy techniques.

## 172 Health Psychology

An introduction to the relation between behavior and physical, as well as mental, health. General psychological principles are studied as they apply to health behaviors including the role of behavior in the etiology and treatment of disease; problems with eating, drinking, sleeping, and sex; reactions to disease; and maximization of longevity and quality of life.

## 176 Personality

An introduction to personality theory and research and how they can be used to understand ourselves and others. Applications of personality theories to psychotherapy, popular culture, and assessment of normal and abnormal personality are examined. Contributions of biology, family, and culture to personality development are considered.

## 178 Positive Psychology

An examination of human strengths, caring, and helping behavior from
the perspectives of emotions, motivation, traits, and environmental factors. Topics include personal and community well-being, coping and problem-solving, creativity, optimal performance, and altruism.

## Methodology and Statistics

These courses provide methodological background required for advanced coursework in psychology. Students planning to major in Psychology should begin this series in their sophomore year.

## 206 Research Design and Statistics I

Part I of a two-semester sequence, which presents the complementary topics of research analysis and statistics. Topics include the nature of research and theory, research methods, measurement theory and procedures, ways of controlling and manipulating variables, univariate and bivariate descriptive statistics, graphical methods, correlation, and regression methods. The basics of probability, sampling distributions and estimation are also presented. Prerequisites: A core course in Psychology. Students are strongly encouraged to take Psychology 206 and Psychology 207 in sequential semesters.

## 207 Research Design and Statistics II

Part II of a two-semester sequence, which provides a structured way of posing questions and analyzing data with classical experimental designs. The course introduces statistical inference and hypothesis testing with single-group studies, single-factor experiments, and factorial designs. Alternative ways of carrying out research are also reviewed, including the treatment of categorical data, single-subject quasi-experiments, case studies, surveys, archival and small-N research. A research proposal is required. Prerequisite: Psychology 206, completed with a grade of "C-" or better. Students are encouraged to take Psychology 207 in the semester following Psychology 206.

## Advanced Topics Courses

Courses in this category are intended primarily for junior and senior Psychology majors. Majors are required to take any two courses from those numbered in the 300 s or 400 s.

## Advanced Topics in Applied Psychology

350 Clinical Psychology
An overview of clinical psychology including: consideration of clinical psychology as a behavioral science and/or profession, origins and development of the field, models of clinical training, controversies regarding legal and ethical issues, and processing and communication of assessment data and procedures. Specialized topics or areas are studied and reported by students in some depth. These may include single or clusters of diagnostic categories; individual, group, and family therapy approaches; and community interventions. Topics vary from year to year. Prerequisites: Psychology 206 and 170 or 172.

## 360 Health and Psychophysiology

The impact of psychological principles, stress, emotionality, personality, and self-defeating behaviors on health. The practice of health psychology is examined by analyzing psychological responses and the physiological concomitants involved. Prerequisites: Psychology 206 and 170 or 172 . Corequisite: Psychology 365.

## 365 Health and Psychophysiology Lab

A series of laboratory experiments in psychophysiology. Students learn to assess EMG, EOG, EDA, ECG, EGG, respiration, pulse, and blood pressure responses to psychological stimuli. Moreover students study the relationship of these responses to health. Designed to complement issues
discussed in Psychology 360. One laboratory period per week. Credit: Two semester hours. Prerequisites: Psychology 206 and 170 or 172. Co-requisite: Psych 360.

## 370 Tests and Measurement

An introduction to the background and methodology of psychological and educational assessment. Discussion focuses on test theory, including reliability, validity, norms, and errors of measurement. Attention is given to selecting and evaluating devices intended for the assessment of mental ability, achievement, personality and interests. Controversies and issues in testing including cultural and ethical issues are considered. Prerequisites: Psychology 206 and any core course in Psychology.

## 375 Community Psychology

An exploration of community dynamics with attention to local and national issues. Various psychological perspectives are used to address such questions as: What makes communities work well? What challenges do communities face in the $21^{\text {st }}$ century? How can communities support the well-being of all of their citizens? How do citizens mobilize available assets and resources? The course includes site visits and a community participation component. The final project involves community-based research and public presentation of the results. Prerequisites: one core course in psychology from either the Human Processes (160s) or Individual Differences (170s) category and Psychology 206.

## 380 Behavior Modification

A study of the application of basic research on behavior principles to real-world problems. This is accomplished through an in-depth reading of the research literature in behavior therapy as well as an examination of conceptual and ethical issues. Applied research design and behavior therapy techniques are presented as we study particular behavior problems. Topics include: self-injurious behavior, health and wellness, safety, aggression, workplace performance, academic performance and classroom behavior, anxiety and drug abuse. Prerequisites: Psychology 152 or 416, and Psychology 206.

## 400 Developmental Psychopathology

An exploration of the etiology, diagnosis, and treatment of developmental psychopathology in children. This involves applying developmental principles to the study of high-risk children to understand different pathways leading to emotional problems, maladaptive behavior, and developmental delays and disturbances. Different perspectives on childhood psychological disorders, in terms of theory, ethics, research, and assessment, are explored. The developmental courses of a range of childhood disorders are considered. The psychological, sociocultural, and biological factors that promote or hinder optimal development are examined through presentations, discussions, and lectures. Prerequisites: Psychology 206 and 160 or 170.

## Advanced Topics in Behavioral/Physiological Psychology

## 410 Cognitive Neuroscience

An exploration of current research and theory on human neuropathological conditions and animal models of these conditions as they pertain to brain function and behavior. The course emphasizes various methods for studying mechanisms that relate brain and behavior, critical analysis of relevant literature, ethical considerations in human and animal biomedical research, and the generation of proposals for research projects. Prerequisites: Psychology 206 and 154 or Biology 380.

## 411 Systems Neuroscience

An examination of our current knowledge of the neural processes underlying behavior and mental processes from the perspective of systems neuroscience. The focus is on how this perspective utilizes a combination of behavioral, electrophysiological, anatomical and biochemical approaches in order to increase our understanding of these processes. These issues are addressed through both the critical evaluation of the existing experimental literature and also the processes involved in the development of a research project utilizing these techniques. Current ideas regarding the processes involved in both normal and abnormal function in areas such as learning and memory, motivation, cognition and personality are discussed. Prerequisites: Psychology 206 and one of the following: Psychology 154, Biology 380 or Neuroscience 110.

## 412 Verbal Behavior

An analysis of the acquisition of language and communication from a behavioral learning perspective. We examine in detail how forms of verbal behavior, such as speaking, listening, writing, and thinking, originate and are modified through interactions with other members of the verbal community. Emphasis is placed on the function, rather than the form, of verbal behavior and communication. Specific topics include audience control over verbal behavior, the function of grammar and syntax in oral and written communication, thinking and other private forms of communication, and self-editing in thinking, writing, and speaking. Prerequisites: Psychology 152; or corequisite Psychology 416 or Psychology 585.

## 415 Behavioral Pharmacology

An in-depth examination of the methods used in the systematic discovery of clinically efficacious drugs. A central focus of this course is the techniques used to better understand the behavioral actions of drugs through laboratory analysis. Topics include the stimulus properties of drugs, drug effects on learning and memory, and how complex operant behavior may be altered by various drugs. Ethical issues concerning human and nonhuman research are also discussed. In addition, the course emphasizes a critical evaluation of relevant literature. Prerequisites: Psychology 206 and 152, 154, or Biology 380.

## 416 Experimental Analysis of Behavior

Designed to explore complex issues in the experimental analysis of behavior. Topics include matching equation and maximizing; conditioned motivative relations; rule-governed behavior; adjunctive behavior; schedule-induced behavior, and other aspects of operant behavior. In addition, the course provides the student with an overview of the applications of behavioral technology. Prerequisites: Psychology 206 and 152 or 415 .

## Advanced Topics in Developmental Psychology

## 421 Social-Cultural Nature of Child Development

An advanced course on human development. The assumptions embedded in alternative theories of development are examined. Special attention is paid to the profound impact of the social niche on child development. Rather than describing age-related statuses of the North American child, the processes of development are considered through exploration of diverse cultures. The intersection between personal and collective culture is examined in terms of such issues as the social organization of pregnancy and childbirth, social development in infancy and childhood, cultural transmission via informal and formal educations, and the transition from childhood into incipient adulthood. Prerequisites: Psychology 206 and 160, 162 or 164.

## 423 Gender and Families

An examination of issues raised by the diverse roles that women, men, and children play in families. Although the primary focus is families in the United States, cross-cultural variations in family forms are also addressed. We pay particular attention to the social construction of gender in families, examining families in their social, economic, and political contexts. Topics include adult intimate relationships, ideologies of motherhood and fatherhood, the dynamics of power relations in families, and the impact of social policies on families' lives. Prerequisite: Psychology 160-level core course or permission of the instructor

## 426 Aging

A broad overview of aging and developmental issues occurring in later life. Topics covered include developmental theories, research techniques, and biological, psychological, and social aspects of aging. Prerequisites: Psychology 206 and one other course in Psychology.

## Advanced Topics in Social Psychology

## 433 Justice

An examination of the psychological processes underlying the perception of justice and fairness. The distinction between procedural and distributive justice is developed. The personal and social implications of justice norms, including equity, equality, responsiveness and reciprocity, are explored. The course is primarily discussion and emphasizes the analysis of original research. Prerequisites: Psychology 206 and 160, 162 or 164.

## 434 Attitude Formation and Change

An examination of the research/theory concerning attitude formation and change. Beginning with learning approaches to attitude formation, the course explores the variables that affect attitude change, propaganda, and persuasion. Learning, functional, consistency, and cognitive theories are developed through an examination of original research.
The course is primarily discussion. Prerequisites: Psychology 206 and 160, 162 or 164.

## 435 Psychology and Law

An application of psychological research/theory to the judicial process with an emphasis on social psychology. The course focuses on criminal justice models of justice as well as applications of research/theory from arrest through trial. Topics include confession, eyewitness testimony, jury selection, expert testimony, and punishment. The course format is lecture/discussion. Prerequisites: Psychology 206 and 162, 164 or 170. Psychology 162 is recommended.

## Advanced Topics in Cognitive Psychology

## 440 Psychology of Language

An exploration of important issues about language and its impact on people's perceptions of one another. Topics include the comprehension of spoken and signed languages in social contexts, the acquisition of language, analysis of styles and registers, the role of language in maintaining social structures, and the cognitive and social aspects of bilingualism. Special attention is given to the ways in which language can contribute to stereotypes, discrimination and conflict, as well as to understanding and cooperation. Prerequisites: Psychology 206 and 160, 162 or 164.

## 441 Human Memory Processes

An examination of the encoding, storage, and retrieval processes of human memory: Special attention is given to classic and current models of memory from the fields of cognitive psychology and cognitive neuroscience. This discussion-oriented course critically examines arguments and techniques presented in primary sources. Topics covered
include individual differences in memory, constructive memory, emotional memory, and memory across the lifespan. Prerequisites: Psychology 206 and Psychology 164 or 150.

## 445 Psychology of Reading

An examination of developmental issues associated with reading and the use of books in therapeutic settings. Topics include cognitive processes in word recognition, reading comprehension, reading development, reading difficulties, teaching reading, and the science behind biblio-therapy. Special focus is given to the practical applications of reading research and how reading can be used to improve thinking, language and learning. The course includes a service-learning component. Prerequisite: Psychology 160 or 164.

## Advanced Topics: General

Courses in this group are designed for junior and senior majors and non-majors alike. Prerequisites are specified in the course descriptions.

## 450 Contemporary Social Issues

An application of current psychological research and theory to selected contemporary social issues. Topics change yearly. Issues such as television and social behavior, sexual harassment, peace research, and conflict resolution will be examined. This course is a discussion course using original sources. Prerequisite: One core course in Psychology.

## 451 Psychology of the African-American Experience

An examination of a broad spectrum of theory, research, and practice that focuses on the study of the psychosocial experience of African Americans. Some of the themes addressed include: historical and philosophical foundations and research paradigms of African/Black Psychology, psychosocial legacies of enslavement, African/Black personality and identity, education and intelligence, and the psychosocial implications of Black popular culture. Prerequisites: Psychology 105, or one core course in Psychology from either the Human Processes (160s) or Individual Differences (170s) category, or permission of the instructor.

## 452 Psychology of Prejudice

An overview of the theoretical perspectives, research methods, empirical findings, and practical applications of psychological research on prejudice, stigma, and intergroup relations. Topics include, but are not limited to, the development of prejudice among children, the role of cognitive, social, personality, and motivation factors in maintaining prejudice and stigma, the psychological consequences of prejudice and stigma, and strategies for reducing prejudice, stigma, and intergroup conflict. Prerequisites: Psychology 105, or one core course in Psychology from either the Human Processes (160s) or Individual Differences (170s) category, or permission of the instructor.

## 455 History of Psychological Theories

An examination of the historical roots of the various theoretical approaches adopted by modern psychologists. A major theme of the course is an examination of the conflict between advocates of introspection, or the study of human experience, and behavior observation, the study of human action. After a brief survey of classical contributions, the course concentrates on the 19th- and 20th-century theories ranging from Wundt, Freud and James to Bandura and Piaget. Consideration is given to how psychological theories are applied in the clinic and the workplace, and special attention is given to the developing division between applied and research psychology. Recommended for students going to graduate school. Prerequisite: One core course in Psychology.

## 461 Bilingualism and Second Language Acquisition

An exploration of psychological research from the fields of bilingualism and second language acquisition (SLA). Topics include an examination of current cognitive models of bilingual language acquisition, production, and comprehension as well as the impact of cultural factors on bilingual language use and maintenance. In addition, approaches to second language instruction are considered with an emphasis on both in-class and immersion contexts. Prerequisite: Psychology 105; or one core course in Psychology from either the Human Processes (160s) or Individual Differences (170s) category; or permission of the instructor.

## 475 Psychology and Religion

(also listed as Religious Studies 475)
An examination of Judeo-Christian religious belief and experience from psychological and religious studies perspectives. Cognitive, theological, historical-critical and psychodynamic theories will be explored and applied to empirical studies and biographical accounts of the faith lives of men and women, past and present. This course will be mainly discussion, based on primary sources. Prerequisites: One course each in Psychology and Religious Studies.

## 480 Food and Hunger in Society

Various perspectives—including psychological, biological, economic and sociocultural-are used to study in depth how human beings produce, select and use food. The objective is to understand how these perspectives converge to explain both individual and collective food choices and the ways in which those choices are affected by culture, gender and social class. The causes and consequences of excess and scarcity will also be examined. The course is discussionoriented, with emphasis on primary sources, and includes a community activism component. Prerequisite: One core course in Psychology.

## 490-494 Special Advanced Topics in Psychology

Prerequisites: Psychology 206 and one core course in Psychology.

## Internships

## 501 Internship at CHAPS

Liaison: Professor Paulson
An internship at the Crawford County Center for Mental Health Awareness (CHAPS). CHAPS is an agency that provides a drop-in center, housing assistance, job training and other services for mental health consumers. The intern works with staff and consumers to assess satisfaction with services, conduct advocacy and education about mental health issues, and facilitate the work of the drop-in center. The student is jointly evaluated by the CHAPS staff and the faculty liaison: Credit: Two semester hours. Prerequisites: Psychology 170 and approval of the liaison. Corequisite: Psychology 540.

## 502 Internship at the State Correctional Institution, Cambridge Springs

Liaison: Professor Paulson
An internship at the State Correctional Institution at Cambridge Springs (SCICS), a minimum-security women's prison. The intern works with the prison's treatment staff, observes group therapy and other group counseling techniques, typically in specialized group settings such as those for substance abusers or sexual offenders, and learns about the multidisciplinary approach to inmate rehabilitation. The student is jointly evaluated by the SCICS staff and the faculty liaison. Credit: Two semester hours. Prerequisites: Psychology 170 and the approval of the liaison. Corequisite: Psychology 540.

## 503 Internship at the Meadville Medical Center, Pain Management Center

Liaison: Professor Paulson

An internship at the Pain Management Center at the Meadville Medical Center. The intern observes and/or participates in various aspects of the multidisciplinary treatment of chronic pain, including educational presentations, individual psychotherapy, physical therapy, biofeedback and medical procedures. The student is jointly evaluated by the Pain Management Center staff and the faculty liaison. Credit: Two semester hours. Prerequisites: Psychology 172 and the approval of the liaison. Corequisite: Psychology 540.

## 505 Internship in Psychological Research

Liaison: Professor Paulson
Research experience at Allegheny College to be directed by any member of the Psychology Department. The completed project is evaluated jointly by the supervising faculty member and the liaison person. Credit: Two or four semester hours. May be repeated for credit. Prerequisites: Psychology 206 and 207 and/or the approval of both the faculty liaison person and the faculty member in charge of the project.

## 506 Internship in Surveying and Data Analysis

Liaison: Professor Paulson
An internship with one or more local social service agencies in which the intern assists in the design, pre-testing, implementation, and evaluation of survey instruments. Additional responsibilities might include cataloguing, evaluation, and other data management procedures. Provides hands-on experience for students with research methods, statistics, and data management. May be repeated for credit. Prerequisites: Psychology 206 and 207 and/or the approval of both the faculty liaison person and the faculty member in charge of the project.

## 520 Internship at Bethesda Youth Services, Meadville

Liaison: Professor Paulson
An internship in therapy and evaluation programs for delinquent and dependent adolescents in short-term or long-term residential grouphome or settings. Students are evaluated jointly by the Bethesda staff and the faculty liaison and on the keeping of a daily journal. Credit: Two semester hours. May be repeated for credit. Prerequisites: Psychology 160 or 170 and the approval of the liaison. Corequisite: Psychology 540.

## 522 Internship in Child Care

## Liaison: Professor Paulson

An internship at one of two child care sites: Meadville Children's Center or Head Start Meadville Branch. The internship 1) acquaints the student with a child care agency serving children four years of age and under; 2) enables the intern to observe normal physical, cognitive, and social-emotional developmental processes in young children; 3) involves the student in planning and implementing appropriate activities for infants, toddlers, and preschoolers; and 4) requires that the intern read current theory and research and reflect on social issues and public policies regarding young children and their families. The intern meets regularly with an agency administrator for discussion and supervision and confers regularly with the internship instructor to review assigned readings. The intern's performance is evaluated by the on-site supervisor in consultation with the supervising faculty member. In addition, the supervising faculty member will evaluate the student's journal, which integrates the on-site experiences with the assigned readings. Credit: Two semester hours. May be repeated for credit. Prerequisites: Psychology 160, 421 or 425 and the approval of the liaison. Corequisite: Psychology 540.

## 525 Internship with Active Aging

## Liaison: Professor Paulson

Active Aging is a state-supported area office on aging that provides a wide variety of services to senior citizens living in Crawford County. The center provides congregate meals, home-delivered meals, educational activities, health-promotive services and activities, and social activities for active seniors. The student becomes involved in several facets of operating a center for older adults, from developing appropriate activities and services to implementing them. The internship involves selected readings and discussion with the on-site supervisor and staff. Professional performance is evaluated by the on-site supervisor in consultation with the supervising faculty member. The student's academic performance is evaluated via a journal of internship experiences and a research paper. Credit: Two semester hours. May be repeated for credit. Prerequisites: Psychology 160 and the approval of the liaison. Corequisite: Psychology 540.

## 527 Internship with Wesbury United Methodist Retirement Community

Liaison: Professor Paulson
The internship provides students with an opportunity to observe and to be involved in the operation of a retirement community, as well as to interact with residents. Depending on the student's interest, the internship experience can be tailored to include, but is not limited to activities, programming, health advancement, community outreach, public relations, accounting, and administration. Performance will be evaluated jointly by the on-site supervisor and the supervising faculty member. Credit: Two credit hours. Prerequisites: Psychology 160 and approval of the liaison. Corequisite: Psychology 540.

## 529 One-Time or Infrequent Internships

530 Internship in the Teaching of Psychology
Liaison: Professor Paulson
Designed to provide practical teaching experience in a variety of Psychology courses, this internship involves working closely with an instructor in a particular course such as Introductory Psychology, Learning, or Physiological Psychology. Although the specific duties vary with the course involved, students may be asked to attend lectures, act as discussion facilitators, hold regular office hours, assist with laboratory sessions, and act as writing tutors. In addition to the practical work, the student intern meets on a regular basis with the supervisor to review his or her work. Interns are also exposed to some of the basic principles of learning and cognitive psychology as they apply to teaching and learning. Signature course. May be taken on Credit/No Credit basis only. Credit: Two to four semester hours. May be repeated for credit. Prerequisites: Permission of liaison and supervising faculty member.

## 540 Internship Seminar

A corequisite course for all students participating in applied internships in the Psychology department (i.e., all internships except Psychology 505, 506, and 530). The course focuses on integrating students' internship experiences with their understanding of psychological theory and research. Students meet biweekly during the first two weeks and last two weeks of the semester and weekly during the balance of the semester. Topics such as ethics, appropriate workplace behavior, and relationships with supervisors and co-workers provide the focus of the early meetings, and the rest of the semester is devoted to examining students' internship experiences and the on-going ethical or practice issues. A paper and formal in-class presentation, assessing the relationship of the student's field experience to current psychological theory and
research, are required. Credit: Two semester hours. May be repeated for credit. Corequisite: Enrollment in any Psychology Department internship except Psychology 505, 506 or 530.

## Seminars

Psychology 206 and 207 and core courses are prerequisite to all seminars. Additional prerequisites are specified in course descriptions. Students are encouraged to take their seminar as a junior in preparation for the Senior Project.

## Junior Seminars in Applied Psychology (Clinical, Applied Social and Health)

## 550 Junior Seminar: Clinical Disorders

An examination of current research and theory about the nature and qualities of psychological disorders, particularly those included in the Diagnostic and Statistical Manual of Mental Disorders. Topics may include the following: What are the relative strengths and weaknesses of correlational, experimental, and single case designs in clinical research? How can the psychological, social and physiological precursors of various disorders be understood in relation to one another? Can the effects of medication or psychotherapy be used as evidence for or against a particular cause for a disorder? The course may focus on adult or adolescent disorders and emphasizes close reading of selected primary sources, in-class discussion, and extensive writing, culminating in a detailed research proposal. Prerequisites: Psychology 206, 207, and 170, 172, 176 or 178.
553 Junior Seminar: Psychology of Alcohol Use and Abuse An examination of current research and theory in the area of alcohol studies. The primary focus is on the psychology of alcohol use and abuse, with a special emphasis on it prevalence, consequences, and causes. Issues of treatment also are addressed. Particular attention is paid to methodological issues in alchohol research, especially statistics. The course also emphasizes close reading of selected primary sources, in-class discussion, and extensive writing, culminating in a detailed research proposal. Prerequisites: Psychology 206, 207, and one from Psychology 170, 172, 176 or 178.

## 555 Junior Seminar: Behavior, Cognition, and Health

An in-depth examination of topics in the area of the effects of behavior and cognition on health and vice versa. Students prepare and discuss presentations on themes such as wellness, pain management, stress, and reactions to, and control of, disease. Prerequisites: Psychology 206, 207, and $170,172,176$ or 178 .

## Junior Seminars in Physiology and Animal Behavior

## 556 Junior Seminar: Physiological Mechanisms of

 Animal BehaviorAn examination of animal behavior from the neuro-ethologist's perspective. Specific topics include methods of neuro-ethological research, adaptation and evolution of behavior, social behavior, physiological control systems, and ethological theory past and present. Recommended for majors in both Biology and Psychology and for any student with an interest in physiological mechanisms of animal behavior. Prerequisites: Psychology 206, 207, and 150, 152 or 154.

## 557 Junior Seminar: Behavioral Mechanisms of Drug Action

 A study of the various behavioral and environmental mechanisms by which drugs and other substances may alter behavior. Students examine the actions of drugs from a behavior and analytic perspective. Specific topics include the factors involved in the initiation and maintenance ofself-administered drugs. Moreover, the students examine the status of behavioral pharmacology in the area of neuroscience, in addition to ethical issues. Of primary concern is the examination of the development of a scientific analysis of the effects of drugs on human and nonhuman behavior. Prerequisites: Psychology 206, 207, and 150, 152 or 154.

## 558 Junior Seminar: Behavioral Neuroscience

Examination of research on basic neural processes underlying behavior and mental processes. Students engage in the examination and evaluation of research addressing questions regarding the neural bases of motivation, learning, and cognition. Various techniques are discussed, including electrophysiological, anatomical and biochemical. The relevance of such basic research to clinical disorders is addressed. Prerequisites: Psychology 206, 207, and 150, 152 or 154.

## 559 Junior Seminar: Clinical Neuropsychology

Examination of primary literature that addresses the etiology, diagnosis, treatment strategies, and experimental animal models of disorders of the human nervous system. Topics include neurodegenerative disorders such as Alzheimer's and Parkinson's diseases, schizophrenia, affective disorders, and injuries of the brain and spinal cord. Prerequisites: Psychology 206, 207, and one from among Psychology 154/155, 170, 172, Biology 072, or Neuroscience 110.

## Junior Seminars in Human Processes

## 561 Junior Seminar: Socialization in the Family

An examination of the family as a developing communal system embedded in broader social contexts. In particular, we look at how families influence development and how the impact of family socialization changes over time. The seminar explores psychological research investigating characteristics of parental socialization, changes in influence as children enter adolescence, outcomes associated with parental socialization practices, and diversity in family life-including social class, ethnic and cultural variations. The class includes close reading of primary text material, in-class discussion and presentations, and extensive writing, culminating in a detailed research proposal. Prerequisites: Psychology 206, 207, and 160, 162 or 164.

## 580 Junior Seminar: Judgment, Choice, and Ethics

An exploration of the processes of judgment and decision making from a variety of psychological perspectives, with special attention to the social and moral influences that affect human choice. Value judgment, ethical decision making and perception of risks and benefits will be explored through study of life choices in a variety of areas such as family, health, law, education and social action. Prerequisites: Psychology 206, 207 and 160, 162 or 164.

## 582 Junior Seminar: Memory Processes

An examination of current research and theory in human memory processing. Specific topics may include the consolidation of memories, false memories, individual differences in memory, and the application of memory research to the classroom. Particular attention is paid to methodological issues in memory research. The course also emphasizes close reading of selected primary sources, in-class discussion, and extensive writing, culminating in a detailed research proposal for the senior project. Prerequisites: Psychology 206, 207, and 160, 162, or 164.

## 583 Junior Seminar: Creative Problem Solving

An exploration of the processes of problem solving including both welldefined hypothetical problems and often ill-defined real-world problems. The role of creative thinking in selecting, inventing and applying strategies in explored, with attention to the obstacles that
prevent people from solving problems as well as they might. The course is discussion-oriented with emphasis on proimary sources and includes a community service activism component. Prerequisites: Psychology 206, 207, and 160, 162, or 164.

## 584 Junior Seminar: Language Processes

An examination of current research and theory in discourse processing. Specific topics may include politeness theory, sarcasm, generation of insults, characteristics of instant-messaging and e-mail, development of slang, commitment language in therapy, rules of conversation, and speechlessness. The course emphasizes close reading of selected primary sources, in-class discussion, and extensive writing, culminating in a detailed research proposal. Prerequisites: Psychology 206, 207, and 160, 162 or 164.

## 585 Junior Seminar: Stimulus Control: Learning and Remembering

A stimulus-control approach to understanding how we learn new behavior, why we pay attention to particular events, how we remember, and why we forget. We examine in detail the empirical animal and human literature on learning, memory, and stimulus discrimination and generalization, as well as discuss several theoretical perspectives, including those arguing against a stimulus-control explanation. We also apply these explanatory frameworks to complex mental behavior such as categorization, concept formation, and relational learning, and discuss stimulus-control based interventions on clinical and other behavior problems. Prerequisites: Psychology 206, 207 and 150, 152, or 164.
590 Independent Study
591 Group Study
592 Teaching in the Elementary or Secondary Schools
593 Peer Mentoring

## Senior Project

Involves the completion of the Senior Project under the supervision of a Senior Project advisor and a second reader. Students meet regularly with the Senior Project advisor to discuss topics such as ethical standards for research, strategies for literature searches, organization and format of the project, and techniques for coding and interpreting data. Each student is required to have at least one meeting (termed the "Preliminary Conference") with both readers no later than the middle of the first semester of work on the project. An oral defense of the completed project is also required.

The Senior Project in Psychology may be completed in one semester for four credits (Psychology 620 or 630) or in two semesters for six credits (Psychology 600 for two credits and then either 610 or 630 for four credits). Before registering for the Senior Project, students must submit a one-page research proposal, which is approved by the Senior Project advisor and second reader. This approval must be secured before students register for courses for their senior year. Departmental policies regarding the Senior Project are outlined on the Psychology Department's information web page. Prequisites: Psychology 206, 207, one Advanced Topics course and the Junior Seminar.

## 600 Senior Project

First semester of a two-semester senior project. Two credits.

## 610 Senior Project

Second semester of a two-semester senior project. Four credits.

## 620 Senior Project

A one-semester senior project. Four credits.

## 630 Senior Project Seminar

A one-semester senior project or the second semester of a two-semester project, completed with a group of students with similar research topics. Four credits.

## Sophomore Seminars

## FS PSY $201 \quad$ Communication in a Discipline

## Disorders of Thought

An exploration of the evolution of the research and theory on a specific topic in psychology. Through an examination of relevant primary source materials, the course demonstrates how questions prompting research on a specific topic, as well as research methodologies, have evolved.
Effective writing and speaking within the guidelines of the discipline are emphasized. The focus for this section is the evolution of thought regarding identification of, explanations for, and treatment of psychotic behavior. Prerequisite: Any course in Psychology. Psychology majors are encouraged to take their sophomore seminar in the Psychology Department. May count toward a major or minor in Psychology.

## FS PSY $201 \quad$ Communication in a Discipline

Children and Families Contemporary Psychological Examinations of Adoption
An exploration of the evolution of the research and theory on a specific topic in psychology. Through an examination of relevant primary source materials, the course demonstrates how questions prompting research on a specific topic, as well as research methodologies, have evolved. Effective writing and speaking within the guidelines of the discipline are emphasized. The focus for this section is an examination of writings and studies from psychologists and social welfare professionals in the international and domestic adoption research field who have investigated the various facets of the adoption experience from both the parents' and the adoptees' perspectives. Prerequisite: any course in Psychology. Psychology majors are encouraged to take their sophomore seminar in the Psychology Department. May count toward a major or minor in Psychology.

## FS PSY 201 Communication in a Discipline

Psychological Inquiry: Ethics in Biomedical / Psychological Research An examination of the evolution of the research and theory on a specific topic in psychology. Through an examination of the relevant research and theory, the course will demonstrate how questions prompting research on a specific topic, as well as research methodologies, have evolved. Effective writing and speaking in psychology will be emphasized as well as evaluating original source materials. The focus for this section is on the ethical issues related to psychological and biomedical research with both human and nonhuman populations. Psychology majors are encouraged to take their sophomore seminar in the Psychology Department. May count toward a major or minor in psychology. Prerequisite: Any course in Psychology.

## FS PSY $201 \quad$ Communication in a Discipline

Origins of the Human Potential Movement
An exploration of the evolution of the research and theory on a specific topic in psychology. Through an examination of relevant primary source materials, the course demonstrates how questions prompting research on a specific topic, as well as research methodologies, have evolved. Effective writing and speaking within the guidelines of the discipline are emphasized. The focus for this section is an examination of writings from psychologists in the psychodynamic and humanistic traditions who attempted to understand the vast potential of human beings for development and growth. Psychology majors are encouraged to take their sophomore seminar in the Psychology Department. May count toward a major or minor in Psychology. Prerequisite: Any course in psychology.

## Religious Studies

Professors Boynton, Bernstein-Goff, Gardner, Holland, Olson

No area of human thought or action falls outside the consideration of religious thinkers. Religious traditions teach about ultimate values and their relationship to our worldly lives. The study of religious rituals, practices, and systems of thought, both our own and others', helps us to understand the continually evolving relationship of the individual within those traditions as well as the role of religion in the complex global context. Some of the traditions studied in this major are the oldest extant bodies of thought and remain to this day some of the most vibrant and significant. The study of religion intersects with many fields, utilizing various methodologies and approaches while providing additional meaning to symbols, practices, and rhetoric that in turn enrich the work of other cognate disciplines.
Courses in Religious Studies are divided into three approaches to religion and are further differentiated by five main religious traditions. Religious Studies investigates the sources and texts, history and context, and the nature and relevance of religion embodied in these separate traditions.

## The Major

Religious Studies majors are required to have a GPA of at least 2.0 in Religious Studies at graduation. All department courses taken at Allegheny on a letter-grade basis are included in that calculation, with the exception of repeated courses for which only the most recent grade counts. No more than two Religious Studies courses may be taken Credit/No Credit; one of these must be RS 600, which is only offered Credit/No Credit.

The major in Religious Studies leads to the Bachelor of Arts degree and requires the successful completion of 42 semester credit hours in Religious Studies. A major program should include at least one course from each of the following approaches below. Specific courses may appear in multiple approaches, but double-counting courses for multiple approaches is not permitted.

## Approaches

Text
(Religious Studies 115, 130, 150, 160, 200, 222, 229, 230, 275, 350, 440);

## Context

(Religious Studies 117, 120, 140, 142, 144, 146, 147, 150, 160, 165, 170, 180, 200, 210, 224, 240, 250, 260, 375);
Methodical analysis
(Religious Studies 175, 185, 188, 205, 212, 215, 224, 227, 360, 365, 370, 375, 440, 475).

In addition, the major should include courses in three of the five different religious traditions listed below. Specific courses may appear in multiple traditions, but double-counting courses for multiple traditions is not permitted. Courses that satisfy the approaches requirement can satisfy the traditions requirement.

## Traditions

## Judaism

(Religious Studies 120, 147, 185, 188, 205, 224, 229);

## Christianity

(Religious Studies 130, 185, 200, 240, 250, 260, 350);
Islam
(Religious Studies 140, 142, 144, 146, 188, 215, 222, 275, 370, 375);
India / China / Japan
(Religious Studies 150, 160, 165, 170, 212);
Ancient Mediterranean World
(Religious Studies 115, 117).

Majors in Religious Studies can take an approved cognate course from another discipline in fulfilling major requirements, which along with carefully chosen electives, can create an emphasis in a specific area of Religious Studies. In addition to Religious Studies 580, 600, and 610, which are required, students must take two courses above the 100 level and an additional course above the 200 level.

## The Minor

A minor in Religious Studies consists of at least 20 semester credit hours of courses in Religious Studies, including at least one course above the 100 level and another course above the 200 level. The minor program should include two of the five different religious traditions listed above. Specific courses may appear in multiple traditions, but double-counting courses for multiple traditions is not permitted.

## 115 Religion in the Ancient Near East

An examination of religious beliefs, trends, and practices in ancient Egypt, Mesopotamia, and Syria-Palestine, from prehistory to the conquests of Alexander the Great. Topics include the history and development of the different religious cultures, the role of sacrifice, kingship, prophecy, mythology, different ideas about the nature of the divine world, and the distinctions between "official" and "popular" religious culture. Students have an opportunity to read primary sources
reflecting the diversity of religious beliefs and practices among the civilization of the ancient Near East.

## 117 Religion in the Ancient Greco-Roman World

An examination of religious beliefs, trends, and practices in ancient Greece, the Hellenistic empire founded by Alexander the Great, and Rome and its empire, from prehistory to the reign of Constantine. Topics include the history and development of the religious cultures of Greece and Rome, the role of augury, astrology and magic, the philosophical challenge to traditional religion, the spread of the mystery religions in the Hellenistic era, and the origins and growth of the Jesus movement. Students have an opportunity to read primary sources reflecting the diversity of religious beliefs and practices among the Greeks and Romans. This course counts toward the Classical Studies minor.

## 120 The Faith of Ancient Israel

An investigation of the faith and history of ancient Israel as chronicled in the Hebrew Bible (the Christian Old Testament). Both literary and historical critical methods are used to understand ancient Israelite religion and its gradual evolution into the faith that is the basis of Christianity as well as modern Judaism.

## 130 The New Testament

A literary and historical critical examination of the various interpretations of Jesus Christ, his life and mission, as preserved in the writings of the New Testament. The New Testament is also investigated as an expression of the faith of the earliest Christian communities and as a reflection of the issues that concerned them.

## 140 Introduction to Islam

An introduction to the Islamic faith through its history and its practices from the seventh century to the present. We consider the way Islam has adapted and changed through time and over different regions, balancing universal aspects of the faith with the particular adaptations encountered in the lived experience of Muslims. Using a variety of media, including music and art, we examine the voices of Arabic-speaking Muslims (in translation), but also Persian, Turkic, and American expressions. This course counts toward the International Studies major and the Asian Studies minor.

## 142 Early Islamic History

A survey of the social and political history of the Islamic Middle East from the seventh to the eighteenth centuries. Topics include the development of Islamic empires, the beginnings of the Ottoman empire, and the earliest Shi'ite government. Although the course has an emphasis on the Islamic Middle East, Jewish and Christian historical understandings are also considered as well as Islamic Spain and North Africa. This course counts toward the History major or minor and the International Studies major.

## 144 Modern Islamic History

A survey of the political, religious, and social history of the Islamic Middle East from the early eighteenth through the early twenty-first century. Special attention is paid to changes in intellectual currents of the Middle East due to colonization as well as the regions of Islamic Central Asia (including Afghanistan) and Islamic North Africa. Issues related to Muslim migrants to the United States are also considered. This course counts toward the History major or minor and the International Studies major.

## 146 Islam in America

A survey of the variety of Islamic adaptations in North America from the forced migrations of the first Muslims from Africa through present-
day American Muslim youth cultures. The course examines the practices and self-understandings of the Nation of Islam and other socalled "Black Muslim" movements, as well as the impact of changes over time of racial constructions. Prior or current study in Religious Studies 140 is recommended. This class counts towards the Black Studies minor.

## 147 Judaism

A survey of the Jewish experience, examining the historic forces that shape the belief and practices of Judaism. We examine issues in Jewish life such as the relationships among God, Torah, and (the people) Israel through ritual, sacred literature, and theology. Topics include Jewish faith and practice, the Bible from a Jewish perspective, rabbinic literature, the importance of Zionism and the State of Israel, and movements within American Judaism. This course counts toward the International Studies major.

## 150 Hinduism

An examination of the Hindu way of life from its origins to modern sectarian movements. Emphasis is given to the fundamental problems of human existence and their solution in the Upanishads, Bhagavad Gita and Puranic literature. Includes an examination of the importance of sacrifice, the sacramental and social structure of life, myth, the Hindu temple, puja, festivals and pilgrimage. This course counts toward the Asian Studies minor.

## 160 Buddhism

An examination of the life and teachings of the Buddha, the rise of the Therevada and Mahayana schools, and the spread of Buddhism to Tibet and Japan (e.g. Pure Land and Zen sects). Major consideration is given to such issues as suffering, non-self, dependent origination, karma, rebirth, world renunciation, meditation and nirvana. This course counts toward the International Studies major and the Asian Studies minor.

## 165 Zen Buddhism and Japanese Culture

An examination of the origin of Zen, its development in China, and its transmission to Japan forms the historical background for an investigation of the nature of Zen, its philosophy, method of attaining enlightenment, monastic life and important masters (e.g. the Sixth Patriarch, Dogen, Basho, Hakuin). The course also examines the influence of Zen on Japanese cultural phenomena like poetry, tea, painting, rock gardens and the martial arts. This course counts toward the International Studies major and the Asian Studies minor.

## 170 Religions of China

A study of the major traditions of China, Confucianism, Taoism, Buddhism, and folk religion. The Chinese religion is considered on four levels: the personal, the family, community, state. The course concludes with a look at religion in contemporary China: Maoism and its decline and the Buddhist struggle to survive. This course counts toward the International Studies major and the Asian Studies minor.

## 175 Contemporary Religious Thought

An introductory course exploring the basic issues and concerns in 20thcentury religious thought around the world and across traditions. Topics include: key religious figures; the place of religious thought in the contemporary world; religion, skepticism, and secularization; religion, violence, and conflict; religion and globalization; religious social ethics and political liberation; religious pluralism and diversity; religion and ecological crisis; religion and technology.

## 180 Religion in American Life

A social history of Protestant, Catholic, and non-Christian groups in the U.S. context; the role of women and African Americans in various
religions is included along with the emergence of sects and denominations, and the religious faiths of immigrant and ethnic populations. The course examines the inherent tension between the Protestant mainstream and the religious diversity resulting from the First Amendment guarantee of religious freedom. This course counts toward the American Studies minor.

## 185 Jewish and Christian Relations

An exploration of the on-going historic encounters between Judaism and Christianity and the impact of those encounters on the theology, liturgy, and sacred festivals of both monotheistic faiths. Students explore the constructive potential in the relationship between these two faith communities in the face of both Anti-Semitism and Philo-Semitism.

## 188 Muslim Jewish Relations

An investigation of the religious sources in both Islam and Judaism of the current conflict between Jews and Muslims in the Middle East. We explore the significant points of contact between Judaism and Islam from the time of Muhammad until the present to determine whether peace, understanding, and accommodation are possible between Jews and Muslims in the 21st century. The current Arab/Israeli conflict is examined with special focus on the role of religious messianic ideology in both Judaism and Islam.

## 200 Christian Ethics

An introduction to the study of Christian ethics considered within an ecumenical framework and across the broad span of the history of theology. Focusing on the primary issues that arise for any ethic that is identifiably Christian, this inquiry also involves learning to analyze and construct moral arguments. This course counts toward the VESA and Science, Health, and Society minors.

## 205 Jewish Perspectives on Ethical Dilemmas

An examination of contemporary ethical issues using the lens of the Jewish ethical tradition, including Orthodox, Conservative, Reform and Reconstructionist Jewish perspectives. The course takes a holistic approach as the views of Christian ethicists are also considered to illustrate commonalities and contrasts with Jewish ethical perspectives and to aid students in clarifying their own personal ethical values regarding ethical dilemmas.

## 210 Native American and African Religious Traditions

A study of the cosmology, myths, supreme beings, ritual process, types of religious authority, millenarian movements, messianism, and eschatology in selected peoples of North America and Africa.

## 212 The Problem of the Self: East and West

(also listed as Philosophy 212)
An examination of the problem of the self in a cross-cultural context.
The Eastern traditions are represented by early Buddhism, the Advaita Vedanta philosophy of Sankara, Taoism and Zen Buddhism. The Western tradition is represented by the existential thought of Soren Kierkegaard, the dialogical philosophy of Martin Buber, the deconstructive theology of Mark C. Taylor, and others. This course may alternatively be counted toward a philosophy major or minor. This course also counts toward the Asian Studies minor. Prerequisite: At least one course in Philosophy or Religious Studies.

## 215 Gender and Sexuality in the Islamic World

An examination of constructions of gender in the literature, languages, and cultures of the Middle East from the seventh century through the present. We contrast the constructions of gender in the Islamic Middle East with those in Jewish and Christian worlds. Islamic law and cultural
understanding of homosexual and homosocial activity as well as intersex individuals are discussed. No previous knowledge of the Arabic language, Islam, or the Middle East is assumed. This class counts toward the Women's Studies major and minor, the International Studies major, and the minor in Lesbian, Gay, Bisexual and Transgender Studies.

## 222 The Qur'an

An examination of one of the dominant scriptural sources in Islam, the Qur'an, in English translation. Through a close reading of the text, students study the ways Muslims draw on the text in prayer, find meaning from the text, and have used interpretations to provide meaning to new generations.

## 224 Jewish Theology and the Holocaust

An examination of the character of God, revelation, and redemption by exposure to the enormous range of theological viewpoints and methods that have characterized Jewish theological reflection in modern times. Students study Holocaust theologians and theological reflections on the significance of the modern State of Israel as well as essays by prominent Jewish feminist theologians.

## 227 Religion and the Challenge of Modernity

(also listed as Philosophy 227)
An exploration of the philosophical study of religion, particularly in light of the contest between traditional modes of religious expression and the rise of a critical mentality in the modern West. Issues to be addressed may include the ethics of belief, theories of rationality and their relevance to religion, the problem of evil, religious experience, and the epistemic status of belief in God. This course counts toward the VESA minor.

## 229 The Rabbi's Bible

An examination of the Hebrew Bible and the rabbis' unique process of interpretation called midrash. This course encourages a multi-faith conversation on the challenges posed by these texts to people of the twenty-first century and cultivates awareness of the contemporary relevance of the so-called "Old Testament." Scripture is approached as a source of practical wisdom that may form a basis for personal and collective self-understanding. This course counts toward the International Studies major.

## 230 Topics in Scriptural Studies

Investigations of selected topics relevant to one of the Abrahamic faiths (Judaism, Christianity, Islam) through the use of the faith system's scriptural text(s). Topics vary, and the course may be repeated for credit.

## 240 History of Christianity 1: The Triumph of the Church

A study of the development of the Christian tradition from the New Testament era to the papacy of Gregory and Great at the dawn of the seventh century. Particular attention is given to the various controversies that determined the shape of Christian doctrine and the social and cultural factors that defined the church as a part of the Roman imperial society. This course counts toward the Classical Studies minor.

## 250 History of Christianity 2: The Age of Faith

A study of Western Christianity from the fall of the Roman empire to the end of the religious wars in Europe in 1648 . The medieval era and the Renaissance are studied in terms of theological, intellectual, and social movements, the growth of nationalism, and the impact of the Reformation and Counter-Reformation. This course counts toward the Medieval and Renaissance Studies minor.

## 260 History of Christianity 3: The Eclipse of Christendom

A historical survey of Christianity from the 17th century to the middle of
the 20th century. Students explore theological shifts in relation to important political and social changes that have altered the relationships of the Christian churches to Western culture.

## 275 The Middle East in Film

An exploration of films produced in a particular Middle Eastern country in an effort to understand the complex idea of "culture." The careful analysis of location, clothing, music, and historical setting is emphasized. Topics may include childhood and its representations, women and family life, and representations of the rural and urban. Course texts focus on the cinema of the country studied, supplemented with readings on the subtopics of the films and histories of the region. This course counts toward the International Studies minor.

## 350 Paul the Apostle

An examination of the life, works, and legacy of Paul of Tarsus within the context of the Jesus movement and early Christianity in the eastern Mediterranean during the first centuries of the Roman Empire. Students examine Paul's letters as literary products that reveal both the teachings and the personality of their author. Paul's influence on the Christian movement is considered through letters written by others but attributed to Paul, and through second, third, and fourth-century oral and literary traditions about Paul's missionary activities.
360 Religion and Ecology (also listed as Environmental Science 360) An exploration of the intersection between religion and environmentalism, and how religion can both contribute to and help address environmental problems. Topics include religion's role in shaping human relationships with nature, and ecological themes that cut across religions and worldviews. In considering how religious communities can address environmental problems, students take part in service learning projects with local congregations or environmental groups. This course counts toward the VESA minor. Prerequisite: ENVSC 110 or at least one course in Religious Studies.

## 365 Theory and Method in the Study of Religion

A critical examination of the different theories about the nature of religion and methodological approaches to the study of the subject from the nineteenth to the twenty-first centuries. Students study the origins of the discipline of Religious Studies in the quest for the origin of religion and the possibility of a science of religion as well as the various methods applied to the study of religion, including phenomenology, history, sociology, anthropology, psychology, ecology, biology, feminism, and postmodernism.

## 370 Islamic Ritual Practices

An examination of the ritual practices of a variety of Islamic groups over time. Students study the details of such everyday practices as the
five daily prayers, as well as more esoteric practices including shrine visitations. Sectarianism, gender differentiation, and regional variation are considered. Course work may include visits to regional mosques. This course counts toward the International Studies major. Religious Studies 140 is recommended.

## 375 Muhammad in the Eyes of Muslims

An examination of the life of Muhammad b. 'Abdullah, considered by most Muslims the final prophet of Islam. Students study how this important figure has been historically interpreted and reinterpreted, from the earliest Islamic biographies to modern, post-9/11 presentations of Muhammad. Prerequisite: Upperclass standing or permission of the instructor.

## 440 Issues in Religious Studies

An upper-level course enabling in-depth study of a particular issue in religious studies across various perspectives. Students consider and discuss specific aspects of the study of religion and develop critiques of prevailing approaches to the subject. Topics change each time the course is offered. May be repeated for credit. Prerequisite: Permission of instructor

## 475 Psychology and Religion

(also listed as Psychology 475)
An examination of the Judeo-Christian religious belief and experience from psychological and religious studies perspectives. Cognitive, theological, historical-critical, and psychodynamic theories are explored and applied to empirical studies and biographical accounts of the faith lives of men and women, past and present. The course is mainly discussion, based on primary sources. Prerequisites: One course each in Psychology and Religious Studies.

## 580 Junior Group Tutorial

This course may not be taken on a credit/no credit basis.
590 Independent Study
591 Group Study
593 Peer Mentoring
600 Senior Tutorial
A course involving preparation for the Senior Project such as preliminary research and project proposal. Credit: Two semester hours. To be taken on a Credit/No Credit basis.

## 610 Senior Project

A course consisting of the presentation and defense of the Senior Project.

# Values, Ethics and Social Action (VESA) 

Professor Schindler

An interdisciplinary program that draws on courses across the curriculum, especially in the social sciences and humanities, to offer sudents an intellectual framework for understanding social action and its ethics as well as the societal problems that typically inspire such action. The objectives of the program are: (1) to support the development of thoughtful civic engagement; (2) to embed students' experiences of engagement in a broader social context; (3) to equip students for complex thinking about social issues by providing them with theoretical and empirical tools for understanding communities and the dynamics of change within them; (4) to encourage students to examine and perhaps revise their beliefs about community life and its needs and assets, as well as responsibilities to one's community.

## The Minor

The VESA minor requires 26 credits distributed as follows:

1. Foundation course: take VESA 160 - Introduction to Values, Ethics \& Social Action (4 credits)
2. Ethics requirement: take one of the following (4 credits):
a. Phil 140 - Ethics and Community
b. Rel St 200 - Christian Ethics
3. Social Science requirement: take one of the following (4 credits):
a. Psych 162 - Human Social Behavior
b. Psych 178 - Positive Psychology
c. Soc An 200 - Intro to Cultural Anthropology
4. Methods requirement: Take one of the following (4 credits):
a. VESA 201 and 202 - Service-Learning: Theory and Practice I and Service-Learning: Theory and Practice II
b. Wom St 200 - Feminist Theory and Methods
c. Psych 206 - Research Design and Statistics I
d. Env Sc 250 - Environmental Education
e. Educ 220 - Social Foundations of Education
f. INTDS 301 - Envisioning Environmental Futures
5. Seminar requirement: VESA 560 - VESA Capstone Seminar (4 credits).
6. Service Leadership requirement: take one of the following (2 credits):
a. VESA 520 and 521 - Service Leadership and Social Action I and Service Leadership and Social Action II
b. A community-based learning internship approved by the VESA steering committee. Examples include Env Sc 518-529; Wom St 501, 502; and Psych 501, 502, 503, 520, 522, 525, 527 (note that internships in Psychology require Psych 540 as a co-requisite).
7. Elective ( 4 credits). The elective course must be approved by the VESA steering committee; a list of approved courses is available on the VESA website.

No courses for the minor may be taken on a credit/no credit basis except for internships required to be taken CR/NC. With prior approval from the VESA steering committee, students may substitute other appropriate courses for those listed above.

## 160 Introduction to Values, Ethics \& Social Action

An introduction to the theories and ethics of social action, with a focus
on community service. Theories of social dynamics and ethical systems are explored as a way to understand how social action can be useful to a community as well as the problems that can arise in implementing social action plans. Students participate in a service-learning component, which they reflect upon in writing and discussion, so as to better understand how the theories apply and where they may fall short. Attention is also paid to the ways in which class, race and gender shape the processes and outcomes of social action. Prerequisites: first-year, sophomore or junior standing.

## 201 Service Learning: Theory and Practice I

A seminar focusing on the use of service and community engagement as a pedagogy for higher education. Students study the definitions, theories, and assessments of community-based service-learning as "text." The role of reflection in fostering student learning is explored in depth. This is the first of a two-part sequence on service-learning theory and practice and culminates in the design of a service-learning component for an existing course. Credit: Two semester hours. Prerequisite: One service-learning course.

## 202 Service Learning: Theory and Practice II

A seminar and practicum focusing on the use of service and community engagement as a pedagogy for higher education. Students carry out the service-learning plan designed in the preceding course and serve as peer mentors for students in VESA 201. This is the second of a two-part sequence on service-learning theory and practice and culminates in a formal presentation on the service-learning project undertaken. Credit: Two semester hours. Prerequisite: VESA 201 and permission of instructor.

## 520 Connecting Action and Reflection I

Part one of a two-semester course sequence in service learning. This seminar combines community engagement with guided reflection, and participants must hold concurrently, or have recently completed, a cocurricular service leader position. Examples of approved leadership positions include: Bonner Leader, Bonner Scholar, Allegheny Volunteer Service Leader, Davies Community Service Leader, Farhner Fellowship, CEED internship, America Reads Site Supervisor, and Computer Tutor Site Supervisor. One semester credit hour.

## 521 Connecting Action and Reflection II

Part two of a two-semester course sequence in service learning. This seminar combines community engagement with guided reflection, and participants must hold a co-curricular service leadership position while enrolled. Examples of approved leadership positions include: Bonner Leader, Bonner Scholar, Allegheny Volunteer Service Leader, Davies

Community Service Leader, Farhner Fellowship, CEED internship, America Reads Site Supervisor, and Computer Tutor Site Supervisor. Prerequisite: VESA 520. One semester credit hour.

## 560 VESA Capstone Seminar

Selected topics relating to the study and application of social action and ethics from multi-disciplinary perspectives. The class is discussion-
oriented with emphasis on primary sources. Students complete and present a broadly integrative community-based research and activism project. Prerequisites: Completion of INTDS 160 with a grade of C or better, two courses from the Core Course Requirement, a course from the Methods Course Requirement, and at least one term of a service leadership position.

## Women's Studies

Professors Dickey, Hellwarth, McCullough, Shaw, Treckel, Werner, Wesoky

Women's Studies is an interdisciplinary liberal arts program that uncovers, documents, and validates the diverse realities of women's lives, examining the reasons for and consequences of the social distinctions between women and men. Going beyond, and often challenging, the traditional knowledge, methods and theories of other areas of inquiry, women's studies develops a new and more comprehensive understanding of social relations. The objectives of the major are: 1) to provide a coherent body of scholarship for the study of gender; 2) to critically analyze the historical development of feminist theory; 3) to consider the lives of women across time and culture; and 4) to provide instruction in research methods for investigating gender.
Women's Studies draws upon the disciplines of Art, Biology, Dance Studies, Communication Arts, Economics, English, Environmental Studies, History, Modern and Classical Languages, Philosophy and Religious Studies, Political Science, and Psychology. It permits flexibility in course selection so that students' individual interests and needs are met, while at the same time encouraging a developmental and substantively focused approach to studies.

## The Major

A major in Women's Studies leads to the Bachelor of Arts degree and requires the completion of a minimum of 36 semester credit hours. At graduation, Women's Studies majors are required to have a GPA of at least 2.0 in fulfillment of major requirements. All Allegheny courses required for a Women's Studies major must be taken on a letter grade basis, and are included in the calculation, with the exception of repeated courses for which only the most recent grade counts. All majors are required to take Women's Studies 100, 200, 580 and 620, and five electives. Double majors are possible.

## The Minor

The minor requires the completion of 20 semester credit hours. It includes Women's Studies 100, 200, 580 and two courses selected from two of the four areas listed below. As an interdisciplinary minor, Women's Studies may be combined with majors from any other division: humanities, natural sciences, or social sciences.

## Electives

Majors are required to take at least one course from each of the four categories listed below (historical perspectives; representations and images of women; theoretical perspectives; contemporary issues). At least two of the courses must be at the 300 -level or above. Majors must consult with their academic advisors (members of the Steering Committee as listed above) for assistance in selecting a combination of courses that exhibits substantive integrity.

In addition to the following regularly offered courses, some special topics courses may qualify to be counted in the Women's Studies program. For more information about elective courses, students may contact Professor Dickey.

1) Historical Perspectives (choose at least one course): History 261- Survey of American Women's History History 337- History of American Masculinity History 339- Problems in the History of American Women History 560 - Witchcraft in Colonial New England History 562 - The Family in American History INTDS 306 - Cultural and Evolutionary History of Sexuality Political Science 303 - Civil Rights and Liberties
2) Representations and Images of Women (choose at least one course):
Art 330 - The Renaissance Woman
Communication Arts 351 - Media and Identity
English 211 - Women and Literature
Spanish 425 - Latin American Women Writers
Women's Studies 150 - Women and Popular Culture
3) Theoretical Perspectives (choose at least one course):

FS Psychology 201 - Language and Gender
INTDS 320 - Science and Transformation of American Life
Philosophy 210 - Oppression and Liberation
Religious Studies 215 - Gender-Sexuality/Islamic World
Women's Studies 325 - Topics in Feminist Theory
4) Contemporary Issues (choose at least one course):

Communication Arts 255 - Topics in Rhetoric: Visualizing the Body
FS Psychology 201 - Psychological Measurement of Feminity and Masculinity
INTDS 207 - Human Sexual Identities
Psychology 102 - Sex and Gender
Psychology 540 - Internship Seminar (when taken with WS 501 and WS 502)
Women's Studies 501 - Women's Services Internship I
Women's Studies 502 - Women's Services Internship II

## Affiliated Faculty

Professor Carr, Art; Professors Coenen and Kleinschmidt, Biology; Professor Murphree, Chemistry; Professors Bailey, Branch, Silva, SinhaRoy, Watkins and Yochim, Communication Arts; Professors Cabellero, D'Amico, Lockridge, Miller, Quinn, and Slote, English; Professors Forts and Pinnow, History; Professor Lakins, Mathematics; Professor Riess, Modern and Classical Languages; Professors Bywater and Gardner, Philosophy and Religious Studies; Professors Heuchert, Knupsky, Ozorak and Searle-White, Psychology.

## 100 Introduction to Women's Studies

An introduction to women's studies that delineates some of the parameters and interdisciplinary connections in feminist scholarship. The evolution of power structures and associated representations of women are explored and the ways in which femininity and masculinity are constructed by cultures are analyzed. In considering the impact of cultures, we explore how the realities of women are influenced by race, class, and sexuality. Factors associated with change are considered, including women's empowerment in the face of asymmetrical gender arrangements.

## 150 Women and Popular Culture

An examination of women and U.S. popular culture. Students explore the ways in which each of us is a user of, and used by, the media as gendered subjects. We keep in mind how racial identity, ethnicity, class status, ability, sexuality, and nationality intersect with the representation of gender. Students use a variety of interdependent critical approaches to analyze popular culture and questions of empowerment and social change.

## 200 Feminist Theory and Methods

An examination of debates about contemporary feminist theories with an emphasis on their shifting conceptualizations of gender, race, class and sexual orientation. Feminist critiques of traditional knowledge, methods and theories in other areas of inquiry are examined along with the possibilities for distinctive feminist methodologies. Prerequisite: Women's Studies 100 or permission of the instructor.

## 325 Topics in Feminist Theory

An upper division course that focuses upon a specific aspect of feminist theory, a particular theorist, or the evolution of a specific strain of thought within women's studies. This advanced course builds upon a basic understanding of feminist theory while providing for a sustained and concentrated examination of theoretical modes of thought. Possible emphases include: the work of Luce Irigaray; the theoretical basis of eco-feminism; theorizing political and social justice within a feminist context. Prerequisites: Women's Studies 100 and Women's Studies 200. The latter may be taken concurrently.

## 501 Women's Services Internship I

A two-semester internship at Women's Services, a non-profit social service agency for women and children in Crawford County. Students complete the Women's Services volunteer training during part one of the internship and participate in one or more aspects of the organization's program: advocacy, support, information and referral, community education and crisis intervention. The intern meets regularly with the agency administration for discussion and supervision and has regular conferences with the internship instructor. The intern's performance is evaluated by the on-site supervisor in consultation with the supervising faculty member. In addition, the supervising faculty member evaluates the student's written work consisting of a journal integrating on-site experience with assigned readings. In the context of the corequisite, Psychology 540, the student develops an in-depth research project. The student is expected to take Women's Services Internship II the following semester. The sequence may be begun in either the Fall or Spring semester. Two credit hours. Prerequisites: Women's Studies 100, Psychology 102 or 160, and/or approval of the supervising faculty member. Corequisite: Psychology 540.

## 502 Women's Services Internship II

An extension of Women's Services Internship I in which the student continues participation in the agency's program and completes the research project, as described above. Two credit hours. Prerequisite: Women's Studies 501. Corequisite: Psychology 540.

## 503 Internship: Women's Prison

An internship at the State Correctional Institution at Cambridge Springs (SCICS), a minimum-security women's prison. The intern works with the prison's treatment staff, interacts with inmates, observes group therapy and other group counseling techniques (such as those for learning parenting skills or treating substance abusers or sexual offenders) and learns about the issues involved in the incarceration of women, as well as the multidisciplinary approach to inmate rehabilitation. Credit: Two semester hours. Prerequisites: Women's Studies 100 and approval of the faculty liaison. Corequisite: Psychology 540.

## 580-583 Junior Seminar

Selected topics relating to the study of women from multi-disciplinary and feminist perspectives. Students normally are expected to complete a major research project and to present their research to the seminar in a formal oral presentation. Prerequisites: Women's Studies 100, Women's Studies 200 or permission of the instructor.

## 590 Independent Study <br> 620 Senior Project

Research, presentation and defense of the Senior Project.

## Student Life and Services

The Student Affairs Division and other offices provide a variety of programs and services to Allegheny students. These activities are designed to promote the living/learning philosophy of the College, emphasizing the integration of academics, out-of-class educational experiences, and recreational activities in order to stimulate the personal and intellectual growth of all members of the Allegheny community.
The Dean of Students Office staff act in an advisory capacity and advocacy role for individual students and for student groups. Specific functions of this office include supporting students with general concerns about student life at Allegheny, as well as maintaining student files and assisting students who wish to withdraw or take a leave of absence from the College. The division of Student Affairs comprises the following offices: ACCEL (Community Service and Service-Learning, International Programs and Services, Career Services, Leadership Programs, Pre-Professional Studies), Athletics, Counseling Center, Office of Student Life (Residence Life and Dean of Students), Health Center, Safety and Security, and Student Involvement.

## Allegheny College Center for Experiential Learning (ACCEL)

Experiential learning is a component of the educational process in which students are active participants in events and activities leading to the accumulation of knowledge, skills and values in settings beyond the classroom. These learning activities may promote intellectual enrichment, cross-cultural and global engagement, civic and social responsibility, ethical development, career exploration and personal growth. This learning occurs through the acquisition of knowledge and reflection.

The Allegheny College Center for Experiential Learning (ACCEL) coordinates a variety of activities-non-credit career internships, offcampus study programs (nationally and abroad), service-learning, preprofessional advising, and leadership development-that are designed to help students make connections between their academic programs and co-curricular experiences. Students are active learners.

Through participation in experiential learning activities, students develop interpersonal communication, critical thinking and job-related skills; gain self-confidence; and experience to enhance their marketability. ACCEL serves as a clearinghouse for experiential learning activities, and staff members are available to assist students with the creation and selection of these activities. The Center offers materials on all of these areas and programs. The ACCEL website offers a comprehensive experiential learning database, through which students can research various opportunities.

ACCEL includes Career Services, Community Service and Service Learning, International Programs and Services, Leadership Development, and Pre-Professional Studies. ACCEL programs include an integrated Experiential Learning (EL) Term, following the conclusion of Spring Semester. EL Term programs include non-credit internships, faculty-led travel seminars to national and international locations, and various service-learning and leadership opportunities.
A list of courses offered through ACCEL is given under "Experiential Learning" in the "Courses of Instruction" section of this catalogue.

## Career Services

Career Services, as part of ACCEL, is committed to facilitating student success by connecting students and alumni with resources that support
career and life planning. Career counselors network with various partners, both on and off campus, to develop internships and job shadowing opportunities, educational programs, and employment leads to help students attain their personal and professional goals. Since career development is an ongoing process, the staff assists students at all stages of their Allegheny experience. For instance, students who are experiencing uncertainty about a major or career direction can work with exercises and assessment instruments which, when combined with effective counseling, can help them to clarify their interests, skills and personality characteristics and relate them to career options and majors.

Career Services also helps students to develop skills for seeking employment. Internships, work experiences, volunteer work and campus involvement can also strongly affect students' employability. The staff encourages all students to begin the career planning process early in their college years. The staff works to develop Allegheny-specific internships and includes a large range of internship opportunities in the experiential learning database to supplement those offered through the academic departments.

Students have an opportunity to interact with alumni at campus events and to contact alumni who have volunteered to serve as career mentors.

Career Service coordinates an on-campus recruiting program in which a variety of employers visit campus to interview seniors for positions and undergraduates for internships. Additional services include group workshops on topics such as resume writing and job interviewing, practice job interviews, consortium job fairs, etiquette dinners, and an experiential learning database with over 3,000 internships, jobs and volunteer opportunities.

## Community Service and Service-Learning

As a part of ACCEL, Community Service and Service-Learning helps provide structure and support to the student service movement that matches the real needs of the community to the resources of the student body. Allegheny students serve at over 30 local agencies on a consistent basis completing over 25,000 hours of community
service annually. Through service, students demonstrate their civic commitment to issues such as poverty, homelessness, literacy, environmental protection, and domestic violence. They spend time with the elderly, low-income children and families, at-risk youth, wounded/abandoned animals, people with developmental issues, and survivors of sexual assault.

The office is involved in organizing special service events such as Make A Difference Day, Senior Citizen Recognition Day, and Alternative Spring Break Service trips.

Through the Bonner Program, and the Allegheny Volunteer Service Leader Program, student Service Leaders are trained to be liaisons to community agencies to recruit, train, and orient groups of Allegheny volunteers for work at the service sites. Some service programs, such as the Bonner Program, the America Reads Program, and the Computer Literacy Tutoring Program, offer financial assistance to students. Staff members collaborate with faculty and student service leaders to incorporate service-learning into Allegheny courses through the Service-Learning Challenge and through independent work with faculty.

## Pre-Professional Studies

Allegheny is especially well known for the undergraduate preparation for medical, legal, and teaching professions. Our graduates do more than gain admission to professional school: they perform exceptionally well once there, and they fashion fulfilling careers.

Features of ACCEL's Pre-Professional program at Allegheny include one-on-one advising all four years, application assistance, mock interviews, experiential learning opportunities, trips to professional schools, and programs featuring professional school admissions personnel as well as alumni practitioners.

In Pre-Health Advising a key feature of the program is the Committee Letter of Recommendation. This letter draws from many sources including an interview with the Health Professions Advisory Committee. An extensive library of materials from test preparation guides to medical literature is available to students. Notable experiential opportunities include a semester long shadowing program with the local hospital and physicians, and the 3 week EL Term Healthcare Shadowing Program with alumni and local health care providers. Each year the Lehman Medical Ethics Lecture is presented as a complement to the course on case studies in medical ethics. Several cooperative programs are available in allied health and several special programs are available with medical schools.

Pre-Law Advising is provided through a partnership between a faculty member and career services pre-law advisor. Students are encouraged to begin meeting with a pre-law advisor no later than the first semester of junior year although earlier is highly recommended. The Pre-Law Library which includes information on preparing for the LSAT and the law school application process is housed within ACCEL's library, $2^{\text {nd }}$ floor Reis Hall. Career Services provides assistance to students seeking legal shadowing and/or internship opportunities. Presentations, round table discussions and opportunities to connect with alumni who work in the legal field are organized in conjunction with various departments and the pre-law club, a student organization.

Teacher Preparation is done in conjunction with the University of Pittsburgh, Columbia Teachers College, and Xavier University (Cincinnati, OH). Students complete the basic course work for their area of certification during their four years at Allegheny. Their graduate work includes student teaching, and results in the MAT or MEd degree
and certification to teach. Admissions representatives from the three graduate schools visit the College at least once a year. Opportunities to observe teachers and assist in classes are available through the local public school system. Opportunities to volunteer with children and teens are readily available through ACCEL sponsored programs.

## International Programs and Services

International Programs and Services (IO), is committed to the internationalization of Allegheny College by assisting students and faculty going overseas, assisting students who are interested in national study programs, and providing immigration and programming services to international students and scholars.

## Off-campus study

Allegheny sponsors 25 semester and year programs, and six or seven short-term summer programs. Our programs offer an attractive complement to what we strive to cultivate at Allegheny: an openness of mind and spirit, an appreciation for the unexpected, a willingness to take ideas seriously and observe their importance to the way we live and what we come to expect of ourselves and others. In the spirit of experiential learning, the entire off-campus experience becomes a "teachable moment"; and the teachers who clarify and make meaning of these moments are not just the program faculty and staff, but the students themselves, who always seem to be in active conversation and reflection about their classroom experiences, their reading of the local newspapers, their conversations with local university students or host families, or their travels to famous sites. For more information on specific programs, see pages 9 and 10 .

## International student services

Allegheny's diverse international community includes degree-seeking students, exchange students, global nomads (US citizens who have lived abroad all/most of their lives), tenure-track and visiting faculty. International Programs and Services works with the International Club and the Language Houses in North Village I to sponsor programming that facilitates interactions between international students and US citizens, such as international movie nights, music radio broadcasts, soccer tournaments, service projects, field trips, presentations at local elementary schools, and forums on relevant topics. International Education Week is a wonderful opportunity for the Allegheny community to learn about different cultures and global issues through the International Dinner, visiting lecturers and artists.

## Leadership Development

To help fulfill the mission of the College, Allegheny provides a number of opportunities that encourage students to consider and develop a personal philosophy of leadership. The foundation of Allegheny's leadership programs is based upon the following premises: Every student is a potential leader; leadership is a form of service; leaders are active members of the community and are sensitive to the issues of justice and social responsibility; and leaders need opportunities to learn and develop skills in order to be empowered and to empower others.

The ACCEL staff works collaboratively on a comprehensive leadership program. This includes the Collegiate Leadership Conference and the Emerging Leaders Retreat for first year students. ACCEL serves as a clearinghouse for leadership opportunities and reviews programs regularly to respond to changing needs and interests.

## Campus Safety and Security

The Safety and Security Department is located in the Newton Observatory and is open 24 hours a day, seven days a week. The Safety and Security Department provides protection and security services to the Allegheny College community.

The Department is responsible for enforcing College rules and regulations, Access Control, ID Cards and Pennyslvania state laws, as well as conducting fire drills and inspecting fire detection and prevention equipment. The services provided by this office include investigations of possible college violations, escort services, emergency medical transport, and lost and found information. The College Motor Pool and Driver's Safety Program is also a part of this department.

## The Counseling Center

The Counseling Center is a place where students can come to discuss concerns, sort out feelings, and get help making choices. The staff is dedicated to helping students succeed academically, work well with others, appreciate Allegheny's diversity, adjust to a residential college experience, develop a healthy lifestyle, and prepare for life after college. Services are confidential and free to Allegheny students. The number of visits is limited. Students with serious concerns must always be followed and treated by qualified mental health professionals off campus but may seek occasional crisis help from the center.

## Residence Life

Allegheny is a residential liberal arts college strongly committed to learning and growth beyond the classroom. The College has consequently enriched its residential communities with support networks, creative programs, social activities, and cultural diversity. Because daily life in these residential communities brings new perspectives to concepts studied in class and otherwise helps to broaden horizons, living on campus is considered an integral part of the Allegheny educational experience.

In accordance with this philosophy, the College has an on-campus living requirement that students reside on campus for a total of six semesters during their first three years at Allegheny. To underscore our residential commitment, the College guarantees housing space to all students who sign a housing contract. For further details about this policy, please see the "Residence Hall Contract and Refund Policy" in the Admissions and Financial Information section of the Catalogue.

The Office of Residence Life, located in Reis Hall, directly serves students living in College-owned housing and offers support to students in a number of areas. These areas include educational and social programming, assisting with roommate and personal concerns, and coordinating the communication of maintenance concerns in College residences. The Residence Life staff currently includes Area Coordinators (ACs) and carefully selected and trained upperclass students who serve as Resident Advisors (RAs), House Coordinators (HCs), and Community Advisors (CAs), all of whom live on campus and are available to address student needs.

Residence halls offer students many options in living styles. These include all-male, all-female, all first-year, and co-ed buildings and rooms configured as suites, singles, doubles, triples, and quads. Additionally, a quiet study (24-hour quiet) is available. Many College-owned houses are also organized around special interest themes such as language, culture, or academic programs.

Allegheny students are allowed to take advantage of the room
personalization policy. This policy allows students to contract with the Office of Residence Life to make changes to their rooms that make them more comfortable and attractive.

Students will not be permitted in residence halls prior to the official hall opening and will not be allowed to stay past the official closing. The residence halls are open during Fall and Spring breaks, and are closed between semesters. College-owned houses are open during Fall, Winter, and Spring breaks. A student must leave the residence hall within 24 hours of the end of his or her last examination period each semester. Students for whom this presents excessive hardship should contact the Office of Residence Life.

## Winslow Health Center

Winslow Health Center serves the entire Allegheny student community, including both on- and off-campus residents. The Health Center is open when the College is in session and provides prompt treatment of medical problems as they occur. A registered nurse is on duty during the day, and nurse practitioners and/or the College physician hold clinic hours Monday through Friday. The Center is equipped for routine diagnosis and treatment. When necessary, students are referred to specialists in Meadville, and there is a medical center within one-half mile of the College that offers complete hospital care and services. Family Planning of Meadville provides reproductive health services at a clinic nearby. (See "Medical Insurance" in the Student Charges section under Explanation of Fees.)

Winslow Health Center is located in Schultz Hall and is open from 8 a.m. to 4 p.m., Monday through Friday. The phone number is 814 -332-4355.

## Student Involvement

Student Involvement serves as a gateway to involvement at Allegheny. The office directly advises Greek Life, student government, the programming board (GAP), and The Kaldron yearbook. The staff provides advising, resources and training to all student groups. OSI manages the Henderson Campus Center including the Game Room, the Resource Room and coordinating break shuttle transportation. The staff also partners with ACCEL in coordinating leadership events and programs on campus.

## Dining Services

The Dining Services administrative office is located in Bentley Hall. Office hours are Monday through Friday from 8 a.m. until 4:30 p.m. The phone numbers are 332-2317 or 332-2318, along with a 24 -hour answering service. We encourage customer feedback as part of our continuous improvement program. Comment cards are available in McKinley and Brooks dining rooms.

## Institutional Diversity, Equity $\mathcal{E}$ Access (IDEA)

## Center for Intercultural Advancement and Student Success

The Center for Intercultural Advancement and Student Success (CIASS) is located on the third floor of the Campus Center. CIASS is dedicated to supporting IDEA's core values and principles and Allegheny College in its ongoing commitment to create and foster an intellectually and culturally diverse campus community. To this end,

CIASS works collaboratively and cooperatively with the campus and external constituencies to develop initiatives that enrich the academic, social, cultural, and personal development of students. The primary commitment of CIASS is to serve students, and is implemented through a variety of programs, research, and strategic planning activities that:

- Provide supplemental resources to enhance the academic achievement levels of all intercultural students
- Enhance the leadership skills and competencies of intercultural student leaders and student organizations
- Develop an understanding of interculturalism, social justice, cultural diversity, and student development through a liberal arts experience and beyond
- Improve the overall campus climate to support the activities and culture of our diverse campus community
- Support faculty and staff efforts to infuse interculturalism in curriculum, scholarship, and creative work
- Highlight the educational and societal value of campus diversity experiences - helping to prepare students for the challenges that they will face as citizens in an intercultural and global community


## Spiritual and Religious Life

The Office of Spiritual and Religious Life supports members of the Allegheny community in learning, growing in leadership, and developing as whole persons. Through programs, worship experiences, discussions, and fellowship groups, the office seeks to nurture and encourage persons of faith to deepen their engagement with their own faith traditions, while developing respect for difference. Allegheny's commitment to diversity extends to religion and compels our support for students of all faith traditions, and to the need to prepare students to live in a religiously diverse world.

The office supports seven student fellowship groups, including those for evangelical, Protestant, and Catholic Christians; Jewish, Muslim, Buddhist, and Hindu students. Students of faith come together through the Interfaith Fellowship for discussion, service and programming. We provide weekly ecumenical chapel services and Catholic Mass, plus services for the Jewish High Holidays, Passover, and regular Shabbats. We work in partnership with congregations in the area to support students whose faith traditions are not represented in large numbers on campus.

The College Chaplain works with a staff that includes a Catholic priest and advisors for Hillel and Christian fellowship groups. A rabbi on faculty leads services, and faculty members advise the Muslim and Buddhist/Hindu student groups. The Chaplain is available to all students for pastoral counseling, spiritual guidance, and vocational assistance. We seek to support students of any faith, or of none, in exploring questions of meaning and purpose, and as they develop in mind, body, and spirit.

## Student Policies

## Conduct

The College reserves the right to place reasonable restrictions on conduct and to protect the integrity of the academic process. The Allegheny College Honor Code and the College policies regarding conduct are published in The Compass, the student handbook, which is given to all students at the start of the academic year. Upon admission to the College, students acknowledge their obligations under these documents and the authority of the College to impose appropriate
sanctions in the event of infractions, including suspension or expulsion. Students should refer to The Compass for detailed information and explanations concerning the Honor Code, the student conduct system, residence life policies, the alcohol policy and other policies.

## Discriminatory Harassment and Sexual Assault Policies and Response Protocols

Allegheny College is an Equal Employment Opportunity Employer and does not discriminate on the basis of race, color, creed, sexual orientation, national origin, sex, age, or handicap in any of its educational programs, activities, or with respect to employment, including the provisions of Title IX of the Education Amendment Act of 1972. Additionally, the College has adopted a number of policies and response protocols (including a discriminatory harassment and hate crimes policy and sexual harassment and sexual assault policy) designed to protect the integrity of the individual and the institution.

Inquiries related to EEO, Title VI, or Section 504 of the Rehabilitation Act should be directed to the Chief Diversity Officer/EEO Officer or Director of Human Resources. The following should be directed to:

- Inquiries related to Title IX to the Title IX Compliance Officer
- Inquiries related to discriminatory harassment and hate crimes to the Chief Diversity Officer
- Inquiries related to sexual harassment and sexual assault to the Sexual Harassment Officer.
For specific information on any of the above people, please contact the Dean of Student's Office at 814-332-4356, Human Resources Office at 814-332-2312, or Chief Diversity Officer/EEO Officer at 814-332-6240.


## Privacy of Student Records and Directory Information

The Family Educational Rights and Privacy Act of 1974, (FERPA) mandates that educational institutions maintain the confidentiality of student educational records as defined by FERPA. Specifically, FERPA states (a) that a written institutional policy must be established, and (b) that a statement of adopted procedures be made available, covering the privacy rights of students. The following policy outlines Allegheny College's definitions, policies, and procedures related to access to educational records. Students will be notified of their FERPA rights annually by publication of this policy in The Compass.

## Educational Records

A. "Educational Records" include records directly related to a student that are maintained by Allegheny College, such as admissions materials, transcripts/grades, student conduct records, financial records/billing statements, e-mails, and financial aid information. Educational records do not include: records of instructional, administrative, and educational personnel that are in the sole possession of the maker and are not accessible or revealed to any individual except a temporary substitute; law enforcement records of the Security Office; health records of the Health Center and Counseling Center; employment records of full-time employees who are also students; alumni records that contain information about a person after she/he is no longer in attendance at the College and that do not relate to the person as a student. These records are not necessarily available to a student, but health records may be reviewed by health care provider(s) of the student's choosing.
B. No one outside the College community shall have access to, nor will the College disclose, any information from a student's educational records without the written consent of the student, except to
persons who are permitted access under the Act. These are: authorized representatives of federal or state agencies for audit, evaluation, enforcement or compliance with federal or state requirements; officials of other institutions in which students seek to enroll or where the student is already enrolled so long as the disclosure is for purposes related to the student's enrollment or transfer; persons or organizations providing students financial aid; accrediting agencies carrying out their accreditation function; authorized researchers who provide for confidentiality of the records; parent(s) of students who have established that student's status as a dependent according to federal tax laws; persons in compliance with a court order/subpoena or ex parte court order as determined relevant by law; necessary persons, including parents of an eligible student, in an emergency in order to protect the health or safety of students or other persons; and the alleged victims of incidents of violent behavior of the outcomes of student conduct proceedings with respect to those incidents.
FERPA allows the release of any information from a student's educational record without the written consent of the student to the parent(s) of a student who have established the student's status as a dependent according to federal tax laws. Information concerning a student who is a dependent, within the meaning of Section 152 of the Internal Revenue Code of 1954, may be released to that student's parent(s). The Internal Revenue Code defines a dependent student as one who has attended an educational institution full time for any five calendar months of a tax year and who was provided more than one-half of his/her support as claimed by the parent(s) on their income tax statement. A student may change his/ her status regarding dependency by submitting the proper form and necessary supporting documents to the Financial Services Office. For purposes of this policy, the assumption will be that a student is not a dependent within the meaning of the Internal Revenue Code, unless individually certified to the contrary under the criteria above. Regardless of dependency, a student may submit a release form authorizing the College to share information with his/her parent(s). The submission of such a release is encouraged and can be done by contacting the Dean of Students Office.
C. Within the Allegheny College community, only College officials, individually or collectively, acting in the student's legitimate educational interest are allowed access to student educational records. College officials are persons: employed by the College in academic, administrative, or support staff positions; serving on institutional governing bodies; or contracted by the College to perform certain tasks. A College official has a legitimate educational interest if the information requested is necessary for that official in performing a task that is specified in his/her position description or contract agreement or is performing a task related to the student's education.

## Directory Information

A. At its discretion, the College may provide directory information to the public, without prior approval, to include: student name, local and permanent address, photographs, telephone number, e-mail address, date and place of birth, enrollment status, major field of study, date of attendance (including graduation date), degrees and awards received, participation in officially recognized activities and sports, and weight and height of members of athletic teams.

Directory information includes a student ID number, user ID, or other unique personal identifier used by the student but only if that information cannot be used directly to gain access to educational records. (ID numbers at Allegheny College are used primarily for internal practices and are NOT included in any documents such as The Compass (Allegheny student handbook) or student directory.
B. A student may withhold directory information from public disclosure by notifying the Office of Residence Life in writing. Directory information can be withheld at any time of year and once a student requests non-disclosure this will be in effect until the student gives written notice to change their non-disclosure status. A parent or eligible student may not opt out of directory information disclosures to prevent the institution from disclosing or or requiring a student to disclose the student's name, student ID number, or institutional e-mail address in a class in which the student is enrolled. Directory information will be withheld even after graduation until Allegheny College is notified otherwise. At the beginning of each academic year, students who have not already requested a hold on directory information and who want to withhold directory information from the Allegheny student government telephone directory must do so by the end of the add period for Fall classes.
Inspection and Review of Educational Records
A. A student has the right to inspect and review (within forty-five days of request) information contained in his/her educational records (as defined above); to challenge the contents of his/her educational records and to have a hearing, if the outcome of the challenge is unsatisfactory; and to submit explanatory statements for inclusion in his/her records if they feel the outcome of the hearing is unacceptable.
B. The Dean of Students or designee coordinates the inspection and review procedures for student educational records. Such records are maintained at several locations on the campus; these locations are listed at the end of this policy. A student who wishes to review his/ her educational records must make written requests to the offices maintaining the records. If a student is uncertain as to the location of a particular record, the written request should be addressed to the Dean of Students listing the item(s) of interest.
C. A student may have copies made of his/her records unless a financial, academic, or disciplinary "hold" has been placed on the record by an appropriate College official. Such copies will be made at the student's expense with the exception of a student transcript, which should be requested through the Registrar's Office at a cost determined by that office.
D. A student may not inspect or review the following: financial information submitted by their parents; confidential letters and recommendations associated with admissions, employment, job placement, or honors to which they have waived their rights of inspection and review; or educational records containing personally identifiable information about other students. The institution is not required to permit a student to inspect or review confidential letters and recommendations placed in his/her file prior to January 1, 1975, providing those letters were collected under established policies of confidentiality and were used only for the purposes for which they were collected.

## Amendment of Educational Records

A. If a student believes that the information contained in his/her
educational records is inaccurate or misleading, or that it violates privacy or other rights, the student may request that the College amend the record. Such request shall be in writing addressed to the Dean of Students, and shall specify the amendment sought.
B. The Dean of Students or designee shall, within 30 days after receiving the student's request, and after consulting with appropriate College officials, decide whether the record will be amended in accordance with the request and inform the student in writing. If the decision is to amend the record in accordance with the request, the Dean of Students or designee shall correct the records within ten days. If the decision is to refuse to amend the record in accordance with the request, the Dean of Students or designee shall simultaneously advise the student that he/she may request a hearing to challenge the content of the educational records by contacting the Dean of Students in writing.
C. If a request for a hearing is received, the Dean of Students or designee shall request that the President appoint a panel of three College faculty members or administrators to conduct the hearing. Persons appointed shall be individuals who have no direct interest in the outcome of the hearing. The President shall designate a chairperson for the panel and shall provide the panel such assistance as deemed appropriate.
D. The chairperson of the hearing panel shall notify the student and the Dean of Students or designee of the date, time and place of the hearing at least five days before the hearing.
E. The student shall be afforded a full and fair opportunity to present evidence relevant to the issue whether the information in the student's educational record is inaccurate, misleading, or otherwise in violation of the student's privacy or other rights. The Dean of Students or designee shall be afforded a like opportunity. The panel shall make its decision solely on the basis of the evidence presented at the hearing.
F. The student may be assisted throughout the process by a Community Support Person. The Community Support Person must be a current student or employee of the College who is chosen by the student to serve in an advisory capacity during the hearing. The primary role of the Community Support Person is to assist the student in preparing for the hearing and to attend the hearing as support for the student. The student is responsible for presenting his/her own information and, therefore, advisors are not permitted to speak or participate directly in the hearing without approval from the chairperson.
G. The chairperson of the hearing panel shall, within five days after the hearing, inform the student of the panel's decision in writing including a summary of the evidence and the reasons for the decision. If the decision is to amend the record in accordance with the request, the Dean of Students or designee shall correct the records within ten days. If the decision is to refuse to amend the record in accordance with the request, the chairperson shall simultaneously advise the student that he/she has the right to place in the educational record a statement commenting on the records and setting forth the reasons for disagreeing with the College. Such statement shall thereafter be maintained as part of the educational record and thereafter disclosed to any party to whom the contested record is disclosed.
H. If the student believes that their challenge and/or hearing was handled incorrectly or was not in keeping with the requirements of the Act, he/she may direct a written appeal to the President. Furthermore, students who believe that their rights have been abridged, may file complaints with the Family Policy Compliance Office, U.S. Department of Education, 600 Independence Avenue, SE, Washington, DC 20202-4605.

For further information or to obtain a copy of FERPA, students may consult the Dean of Students Office.

## Location of Student Records

Academic Records: Registrar's Office, Ann Sheffield, Bentley Hall
Admissions Records: Admissions Office, 454 House (prematriculation), Dean of Students Office, Reis Hall (post-matriculation)
Campus Security Records: Safety \& Security Office, Newton Observatory
Career Planning \& Placement Records: ACCEL. Reis Hall Counseling Records: Counseling Center, Reis Hall Employment Records: Human Resources Office, Bentley Hall (full-time) Financial Aid Office, 454 House (work study)
Enrollment Records: Registrar's Office, Bentley Hall
Financial Aid Records: Financial Aid Office, 454 House International Student Program Records: ACCEL, Reis Hall Learning Common Records: Learning Commons, Pelletier Library Medical Records: Winslow Health Center, Schultz Hall
Student Accounts Records: Financial Services Office, Schultz Hall
Student Athletes Records: Athletic Department, Wise Center
Student Conduct Records: Residence Life Office, Reis Hall
Student Life Records:
Dean of Students Office, Reis Hall

## Student Consumer Information

In this Catalogue and elsewhere, Allegheny complies with eligibility requirements for Title IV federal funding by routinely giving current and prospective students certain "consumer information." The following information is available on our website at hhtp://sites.allegheny.edu/ consumerinfo. This page provides links to information about Allegheny College as required by the Higher Education Opportunity Act of 2008.

## Academic Information and Policies

- Accreditation
- Academic Programs
- Articulation Agreements
- Computer/File Sharing Policies
- Copyright Policies and Sanctions
- Faculty Information
- Instructional Facilities
- Planned Academic Improvements
- Privacy of Student Records - Family Educational Rights and Privacy Act (FERPA)
- Teacher Preparation
- Transfer Credit Policy
- Withdrawal Procedure


## Health and Safety Information

- Campus Security Report (includes crime statistics and drug and alcohol abuse prevention information)
- Emergency Procedures
- Fire Emergency Plan
- Fire Safety Report
- Procedures for Missing Persons are available by contacting the Dean of Students Office in Reis Hall, (814) 332-4356, or the Office of Safety and Security in Newton Observatory, (814) 332-3357.
- Vaccination Policies


## Student Information and Policies

- Athletic Program Participation
- Diversity of Student Body
- Graduation, Retention and Transfer Out Rates
- Payment Policies
- Refund Policies
- Services Provided to Students with Disabilities
- Student Activities Information
- Textbook Price Information
- Tuition, Fees and Expenses
- Voter Registration Information


## Student Outcomes Information

- Career and Placement Services
- Employment and Graduate School Placement Rates


## Student Financial Assistance

- Contact Information for Assistance in Obtaining Institutional or Financial Aid Information (The Office of Financial Aid and Enrollment Support, located in Schultz Hall, can be contacted at (814) 332-2701 or fao@allegheny.edu. Additional information is available on the Financial Aid and Enrollment Support website.
- Notice of Availability of Institutional and Financial Aid Information
- Aid Application Procedures: Prospective Students/Current Students
- Code of Conduct for Educational Loans
- Description of Available Aid
- Entrance Counseling Information: Stafford Loan/Perkins Loan
- Exit Counseling Information
- Financial Aid Implications for Study Abroad
- Information on Athletic Financial Support (As an NCAA Division III member, Allegheny College does not provide athletic scholarships.
- National Student Loan Data System Information
- Preferred Lender List/Arrangements for Private Educational Loans
- Price of Attendance: Prospective Students/Current Students
- Private Educational Loan Disclosures
- State Grant Assistance Information
- Student Loan Information Published by the Department of Education
- Title IV Terms and Conditions
- Work-study Information


## Campus Life

## Athletics

The College sponsors outstanding intercollegiate athletic programs for men and women. Allegheny's 21 varsity athletic teams compete in the North Coast Athletic Conference and are members of the National Collegiate Athletic Association, Division III. The varsity teams known as the "Gators" have enjoyed a tradition of success. Since baseball became the first varsity sport in 1867, the Gators have accumulated 15 national titles, 180 conference championships, and 540 NCAA AllAmericans. In 2010-2011, the Athletic program had nine All-

Americans, three Academic All-Americans, six NCAC Players of the Year, 132 All-Conference honors, and set 29 school records. Academically, the average student-athlete grade point average was a 3.0, with $47 \%$ earning a 3.0 or higher; $15 \%$ were higher than a 3.5 GPA .

Allegheny currently fields women's teams in basketball, cross country, golf, lacrosse, soccer, softball, swimming and diving, tennis, indoor track and field, outdoor track and field, and volleyball The ten varsity sports for men are baseball, basketball, cross country, football, golf, soccer, swimming and diving, tennis, indoor track and field, and outdoor track and field.

## Intramurals / Club Sports

The College offers recreational opportunities through intramural and club sports programs that include a variety of activities for the competitive as well as the non-competitive participant. In addition, individuals can experience a variety of outdoor adventures as a member of the Outing Club.

Intramural sports have included basketball (5-on-5), bowling, dodgeball, soccer (indoor and outdoor), flag football, floor hockey, volleyball ( 6 -on-6 and 4-on-4), rand acquetball.

Club sports have included boxing, cheerleading, cycling, equestrian, fencing, men's ice hockey, kung fu san soo, rowing, rugby (men's and women's), skiing and snowboarding, ultimate frisbee, and volleyball (men's).

All students are welcome to participate in recreation at the Wise Sport and Fitness Center. The facility offers a dance/aerobic studio, weight room, racquetball courts, sports forum, swimming pool, jogging track, performance gym, and the use of cardiovascular equipment.

## Public Events

The Public Events Committee is responsible for bringing music, dance, theatre and special events to campus as cultural contributions to life at Allegheny. Some featured artists in the past include Angelique Kidjo, Ballet Hispanico, National Dance Company of Ireland, Ailey II, Cirque Voila!, Richie Havens, St. Petersburg State Ice Ballet, Capitol Steps, and the Polish Philharmonic. Students wishing to join the Public Events Committee should submit an application to ASG for consideration or stop by the Office of Conference and Event Services in Schultz Hall.

## Spiritual Life

Allegheny College strives to engage people of faith, whether they are Catholic or Jewish, Hindu or Presbyterian, as well as those who seek spiritual enrichment in less formal experiences. We recognize that intellectual development must be balanced by opportunities to explore questions of meaning, purpose, and values, and to grow in compassion and connection to others.

Affiliated with the United Methodist Church, Allegheny College takes a nonsectarian aproach to religion and fosters an environment that facilitates the practice of any faith. In addition to regular Christian and Jewish worship services on campus, we celebrate important observances in Islam and Hinduism. Through fellowship groups and other programs, students can take part in meditations, retreats, service projects, Bible study, mission trips, lunch discussions, and other opportunities to deepen roots in their own religious tradition.

An interfaith group brings together members of different religions for conversation and service projects, offering the chance to learn about other faiths, as well as how to articulate their own beliefs in such encounters. Those who do not fit neatly into a defined religious tradition are welcome to participate in these interfaith engagements, and
many do. We partner with other campus groups to offer events that explore the inner life through encounters with nature, music, and animals.

## Social Life

Allegheny College provides a variety of opportunities for students, faculty, administrators, and staff to interact, exchange ideas, and foster relationships with one another. Students are involved in planning and attending activities such as dances, lectures, concerts, comedy acts and films. Informal gatherings and recreational events also respond to the needs and interests of the College community.

## Clubs and Organizations

Allegheny offers over 100 diverse clubs and organizations, giving all students the opportunity to participate in a wide range of activities. These student groups include student government, honorary societies, athletic organizations, College committees, community service, Greek life, media organizations, performance groups, religious organizations and special interest groups.

All new students receive a copy of The Compass, the student handbook, when they arrive on campus. A section of The Compass lists the name of at least one contact person for each student organization so that interested students can obtain more information at any time. In addition, an Involvement Fair at the beginning of fall semester gives new students a chance to learn about Allegheny's clubs and organizations in relaxed, enjoyable environment.

## Allegheny Student Government (ASG)

Through ASG, students participate in the governance of the College. ASG officers and senators are elected by popular student ballot. ASG is responsible for appointing students to serve on the standing committees of the College and of the board of trustees. ASG also allocates student activity fees to campus organizations, and oversees a number of student programs.

## Gator Activities Programming (GAP)

Gator Activities Programming is the all-college programming board designed to provide diverse social events for students and the campus community. GAP sponsors a wide range of events throughout the year in response to student input and suggestions.

## Fraternities and Sororities

Allegheny has an active fraternity and sorority life with chapters of five national social fraternities and five national social sororities on campus. There are chapters of Delta Tau Delta, Phi Delta Theta, Phi Kappa Psi, Sigma Alpha Epsilon, and Theta Chi fraternities. Sororities include Alpha Chi Omega, Alpha Delta Pi, Kappa Alpha Theta, Delta Delta Delta, and Kappa Kappa Gamma. Fraternity and sorority activities include both service projects and social events; many of the latter are open to the campus community. Students must be regularly matriculated for one semester to participate in formal membership recruitment activities. The Interfraternity Council and the Panhellenic Council serve as governing bodies for the College's fraternities and sororities.

## Honorary and Leadership Societies

Students who meet certain academic requirements and other qualifications may be invited to join one or more of the College's honorary societies and service groups. Honorary organizations include but are not limited to: Beta Beta Beta (biology honor society), Lambda Sigma (leadership), Omnicron Delta Epsilon (economics), Phi Alpha Theta (history honorary), Phi Beta Kappa (national scholastic society), Phi Sigma Iota (foreign languages), Phi Sigma Tau (philosophy), Pi Kappa Delta (forensics), Pi Mu Epsilon (mathematics honorary), Pi Sigma

Alpha (political science honorary), Psi Chi (psychology honorary), Sigma Tau Delta (English), and Sigma Xi (scientific research).

## Interest Clubs and Organizations

Students with different backgrounds and interests have the opportunity to learn from each other by participating in interest clubs and organizations. These groups at Allegheny include but are not limited to: the Association for the Advancement of Black Culture (ABC), Legion of Allegheny Gamers, Amnesty International USA, Allegheny Role Playing and Gaming Organization, Association for Computing Machinery, Association for Asian and Asian American Awareness (A5), Chemii (chemistry), cheerleaders, College Democrats, College Republicans, Dimensions (math), Economics Society, Fencing Club, Geology Club, Grounds for Change (coffeehouse), International Club, Model UN, Outing Club, Queers and Allies (Q'n A), Ski and Snowboarding Club, Students Advocating for Reproductive Options, Students for Environmental Action, Student Art Society, and Union Latina.

## Media Organizations

Several publications are produced by students, including: The Campus student newspaper; The Allegheny Review, a collection of essays, fiction and poetry drawn from material submitted by undergraduates nationwide; the Allegheny Literary Journal, featuring fiction, poetry and photography by Allegheny students exclusively; French Creek, an undergraduate journal of environmental fiction; the Civic Engagement Newsletter, published by technical/ professional writing class students; and the Kaldron, senior yearbook.
WARC-FM is the radio voice of Allegheny College. Through the combined efforts of student programmers, producers, engineers, and announcers, WARC broadcasts daily throughout the academic year. Students also produce programs broadcast over the local cable channel, ACTV.

## Performing Groups

Membership in performing groups is open to all students, although some require auditions before accepting new members. The composition of the organizations varies; some are all-student groups, while others include faculty members and community residents. Examples of Allegheny's performing groups include the American Music Ensemble (jazz), the Chamber Choir, the Chamber Orchestra, the Civic Symphony, the College Choir, the College Chorus, Jade, Dance Team, Liturgical Dance Choir, Orchesis, Playshop Theatre, the Student Experimental Theatre, the Wind Symphony, the Wind Ensemble, and the Women's Ensemble.

## Religious Organizations

Allegheny students have many opportunities to explore their religious and spiritual beliefs through the following organizations: Allegheny Christian Outreach, Hillel, Islamic Awareness Society, Newman Organization, Sojourners Christian Fellowship, Fellowship of Christian Athletes, Society for Buddhist and Hindu Students, and Interfaith Fellowship.

## Service Organizations

Approximately half of Allegheny students, as well as many others in the Allegheny community, engage in service throughout the year. A wide range of opportunities exist for both individual and group participation through partnerships with many local service agencies. Examples of organizations solely dedicated to service include Alpha Phi Omega (a coed service fraternity), Up 'til Dawn, and a campus chapter of Habitat for Humanity. Many other student organizations regularly engage in service, including Greek societies, residence halls, religious groups, special interest clubs, honorary societies, and athletic teams. Allegheny Volunteer Service Leaders and Bonner Leaders and Scholars, as well as the Office of Community Service, assist individuals and organizations in finding appropriate service options.

## Admission Information

From the time a prospective student first contacts Allegheny, the emphasis of the College's approach is directed to the unique character, needs and aspirations of each candidate. In this endeavor, primary attention is focused on those criteria that indicate academic promise. Beyond that, careful consideration is also given to those personal qualities that are vitally important in the total success of the college experience. The result is a highly personalized approach to the selection of students and one that is consistent with the aims of the College, incorporates all available data into the decision-making process, that respects the individuality of each applicant, and ensures equal consideration of every candidate. The College encourages diversity and actively seeks students from all ethnic, religious, racial, political, geographic and social backgrounds.

## Admission Procedures

## Application

Interested students may apply for admission by using the College's website (www.allegheny.edu). Allegheny accepts the Common Application to which it gives equal consideration. Completed applications should be returned to the Office of Admissions, Allegheny College, Meadville, Pennsylvania 16335, together with an application fee of $\$ 35$. The check or money order should be made payable to Allegheny College. No portion of the fee may be returned, nor is it credited to any account. A fee waiver may be requested if financial hardship is demonstrated. There is no application fee to submit the online Common Application.

Candidates for fall enrollment may elect either the Early Decision or the Regular Decision admission plan. The deadline for Early Decision is November 15, with rolling notification to December 15. The deadline for Regular Decision is February 15. Applications received after February 15 are considered for fall enrollment if space permits.

Candidates desiring entrance for the Spring Semester should apply by November 1.

All Applications for Admission are acknowledged promptly; but, in the event that confirmation of the application's arrival is not received from the College within two weeks, the student should contact the Office of Admissions.

## Secondary School Studies

The College assumes that candidates for admission have followed a strong college preparatory program that includes at least four major academic subjects in each of the final three years of secondary school preparation. More specifically, Allegheny recommends the completion of four years of English, three years of social studies, mathematics, and science, and at least two years of language. Those individuals who elect more than the minimum number of subjects are considered to have stronger entrance credentials. Applicants are encouraged to participate in any honors or Advanced Placement (AP) courses that the secondary school may offer.

We expect all regular incoming students have earned a high school diploma, equivalent certificate (if home-schooled) or a GED. A regular student who has not met one of these criteria will provide a high school transcript, which indicates the student has excelled in high school. The
student must no longer be enrolled in high school and plan to be a degree-seeking student at Allegheny. Additionally, the student will have also met the age of compulsory high school attendance as defined by the Commonwealth of Pennsylvania (22 PA Code 11.13).

Candidates for admission are responsible for having the official secondary school transcript, midyear senior grades, and required recommendations forwarded to Allegheny. The forms for the transcript and recommendations are included in the application packet and should be distributed to the appropriate individuals according to the instructions on the forms. Steps also should be taken with the school counselor to authorize the release of the school records to the College. Candidates should be aware that the applications are not reviewed until they are complete.

## Standardized Tests

Standardized tests have been an integral part of the college admissions process for many years. However, no student is admitted or denied acceptance to Allegheny based solely on standardized test scores. The use of "score cut-offs" is not practiced, nor are scores used in isolation in evaluating a candidate for admission.

All applicants for admission as first-year students are required to take either the SAT or the ACT. Students may take these tests in the sophomore and junior years or by January of the final year of secondary schooling. The candidate is responsible for having the scores forwarded to Allegheny either by the testing organization or by the secondary school counselor.

For students applying for admission for Fall 2012, the College will use the SAT Critical Reasoning and Math subsections, and less so the Writing subsection for admission evaluation.

Students are encouraged to submit results of all test dates. The Admission Committee combines the highest combination of the Critical Reasoning and Math scores on the SAT or the highest combination of all subject test scores on the ACT- resulting in the best possible score.

## Campus Visits

The Office of Admissions strongly encourages prospective students and their families to visit the Allegheny campus to explore the College's educational programs, campus atmosphere, and physical facilities.

Although a meeting with a member of the admissions staff is not a requirement, this conference can provide the applicant a deeper insight into the character and personality of the College. It also allows the admissions staff the opportunity to learn more about the applicant. Individuals wishing to visit the campus should contact the Office of Admissions (1-800-521-5293 or at www.allegheny.edu) preferably one to two weeks in advance to confirm arrangements. Meetings with members of the faculty or with other Allegheny personnel can also be scheduled upon request.

## Admission Notification

The admission process involves a continuing review of each candidate's credential file as various materials are received throughout the year. For Early Decision applicants, rolling notification occurs through December 15. For Regular Decision applicants, notification occurs no later than April 1 if the credential file is complete.

Accepted applicants will be expected to complete the initial registration process according to instructions in the letter of notification. Candidates are encouraged to consider their college plans carefully prior to the notification date in order to comply with the reply deadline of May 1. A nonrefundable $\$ 400$ deposit is part of the initial registration process; accepted students must adhere to the procedures outlined in the acceptance letter and the Provisions of Acceptance statement (enclosed with the acceptance leter) to ensure enrollment.

## Financial Aid

Financial aid is available to students who qualify on the basis of both need and achievement. An explanation of the program is included in the "Financial Assistance" section. To enable the College to coordinate the financial aid awards with the admissions decisions, students who are seeking financial aid are required to submit the Free Application for Federal Student Aid (FAFSA).

## Early Decision

A formal Early Decision program permits students who demonstrate academic promise and who especially desire to attend Allegheny to have their credentials considered in advance of the regular selection process. Prospective students should not become candidates for Early Decision unless Allegheny is the first choice college and unless they intend to accept an offer of admission. Early Decision candidates may submit Regular Decision applications to other colleges, but these applications should be withdrawn when acceptance to Allegheny is confirmed.

The Early Decision procedures are identical to those for Regular Decision, except for the application deadlines.

The notification of admissions action may include one of the following decisions:
(a) Accept for admission. Approved candidates must pay a nonrefundable $\$ 400$ deposit by the date indicated in the letter of acceptance (normally four weeks are allowed for decision-making) or the applicant will be withdrawn and no further request for consideration honored.
(b) Delay final notification. This action by the Admissions Committee suggests that additional school achievement or test information or an interview is desired prior to making the final decision during the regular admissions process. Candidates may opt to retake the SAT or ACT. The additional scores will be included in the folder of credentials. No additional application is required, and a candidate's
admission status will not be adversely influenced by the Committee's action to delay final notification.
(c) Deny entrance. Applicants who should direct their college planning to other institutions will be notified accordingly.
Early Decision candidates seeking financial assistance will not be required to forward the $\$ 400$ initial deposit before they receive an estimate of the financial aid award. As the reply deadline nears, applicants should contact the Office of Admissions if they have not heard about financial aid.

## Early Admission

Secondary school students who wish to begin college study at the conclusion of the junior year may request consideration under an Early Admission plan. The admissions procedures are identical to those outlined earlier, except the ACT or SAT exam should be taken no later than January prior to the date of desired entrance. In addition, a letter should be forwarded from a senior administrator of the secondary school indicating full understanding and approval of the Early Admission plan. An interview with an admissions staff member should be scheduled to discuss the particulars of such an enrollment plan.

## Early Graduation

Prospective students who have pursued an accelerated program of secondary school coursework may elect to graduate early and to commence college study at Allegheny early. The Regular Decision admissions procedures described earlier should be followed.

## Deferred Entrance

A student may elect to defer entrance to Allegheny for one calendar year. A written request should be submitted to the Office of Admissions after all enrollment procedures have been completed. The $\$ 400$ deposit will reserve the space for one year.

## Transfer Credit

Transfer credit for advanced work done by secondary school students at the collegiate level will be considered according to certain conditions. Students may also earn college credit by achieving an acceptable score on the AP, College Level Examination Program (CLEP), or International Baccalaureate (IB) examinations. See Academic Regulations and Policies and Credit by Examination in the "Curriculum" section.

## International Students

Students from other countries, cultures, and backgrounds add considerably to the diversity of the Allegheny community. Interested students should follow the same application procedures as students residing in the United States. The appropriate standardized test results, which may also include the Test of English as a Foreign Language (TOEFL), and a Statement of Finances must be submitted.

## Transfer Students

Transfer students may matriculate in both the Fall and Spring Semesters. The credentials required for entrance consideration consist of the Application for Admission, letter of recommendation, Statement of Good Standing form, and transcripts from all previous colleges and universities attended. Prospective transfer students should also authorize the release of the secondary school records to Allegheny and ensure that the standardized test results (SAT and/or ACT) are forwarded to Allegheny either by the testing organization or by the secondary school. An interview with a member of the admissions staff may be invaluable to the transfer candidate and is strongly encouraged.

Applications for fall entrance should be submitted by July 1, and for Spring Semester by November 1. Notification of admissions action will be sent as soon as possible after the credentials become complete.

Transfer students who elect to matriculate at Allegheny College because of the advantages offered by cooperative programs arranged with other institutions and by the study abroad program, should be aware that acceptance into those programs usually requires an extended period of resident academic work at the College.

## Visiting Students

Full-time students enrolled at other institutions of higher education may seek entrance to Allegheny for a designated period of time to accommodate specific educational or personal goals. Normally this experience will not exceed two academic semesters, but it may be as limited as one semester, depending on the candidate's preference.

A visiting student must fulfill all the admissions responsibilities of a transfer candidate, plus have a letter forwarded from the appropriate administrator at the sending institution indicating full understanding and approval of the short-term enrollment at Allegheny. The student with visiting status may not seek entrance later as a degree candidate without the knowledge and approval of the home institution.

## Non-Degree Candidates

Persons desiring to pursue studies in the College are, as a rule, expected to be prepared to enter the first-year class as candidates for a degree. Under exceptional circumstances, however, individuals who are not seeking a degree may be admitted as non-degree candidates and allowed to follow selected studies to a maximum of two courses per semester. Non-degree candidates should be aware that full-time degree-seeking students are given priority during registration for classes. An interview with a member of the admissions staff is necessary to discuss the particular educational aims of the candidate and the requirements of the non-degree program.

## Financial Services

## Student Charges $\mathcal{E}$ Terms of Payment

Allegheny College is a non-profit institution. The basic charges that students pay (tuition, fees, room and board) cover approximately 75 percent of the cost of their educations. The remaining funds come primarily from gifts and grants, including alumni and corporate contributions, and income from the College's endowment.

## Basic Fees and Charges

The basic charges for students enrolling at Allegheny for the 2011-2012 academic year are as follows:

|  | Per Semester <br> Tuition <br> Residence Hall Double | $\$ 17,925$ |
| :--- | :---: | ---: |
| Plan C - 165 meals | 2,410 | Full Year <br> $\$ 35,850$ |
| w/\$310 Munch |  | 4,820 |
| Health Center Fees | 2,170 | 4,340 |
| Student Activities Fee | 95 | 190 |
| $\quad$ Total | $\mathbf{7 5}$ | $\mathbf{1 5 0}$ |
|  | $\$ 22,675$ | $\$ 45,350$ |

Residence hall room charge is for a double, triple or quad. Other types of room fees are listed under "Residence Hall Contract."

Board Plan C is included in the basic fees. Alternative board plans and their costs are summarized in the "Meal Plan" section, and are described fully on line at www.allegheny.edu/administration/finserv.

All full-time and part-time students enrolled at the College are eligible to use Winslow Health Center services.

## Normal Schedule and Terms of Payment

For each semester of the 2011-2012 academic year, payment of one-half of the annual tuition, required fees, and room and board charges, less applicable financial aid, is due and payable in full on or before each of the following dates (except for those participating in the Allegheny College Tuition Payment Plan):
Fall Semester
July 31
Spring Semester
December 31

A statement of the semester's charges will be sent in early July 2011 and early December 2011to students.

Checks for payment of student charges should be made payable to Allegheny College and sent to the Financial Services Office. Should you have any difficulty in meeting the above payment deadlines, please contact the Financial Services Office prior to the deadline to discuss possible alternatives. Payments received after a deadline are considered late and incur a $\$ 35$ monthly late payment fee. This may also result in withdrawal of course registration for the student.

Adjustments and additional billing throughout the year should be paid by the subsequent due date (example: Bookstore charges). The due
date is usually three weeks after the monthly bill date. Students with outstanding balances should refer to the "Delinquent Accounts" section below.

The College reserves the right to assess an interest charge on all outstanding balances from the date that the entire balance is due until the date that the entire balance is paid. Payments shall first be applied to the interest then due and owing and the remainder, if any, shall be applied to the principal. Subsequent interest is to be computed on the balance of the principal remaining due.

## Delinquent Accounts

Students whose accounts are delinquent will not be permitted to register for further courses, receive transcripts of their records, or receive their diplomas upon graduation. Students whose accounts are delinquent after the first week in August for Fall Semester, or the first week in January for Spring Semester, will be informed that their course registrations could be withdrawn for the upcoming semester. Students whose accounts are brought current after these dates and prior to the first day of classes for the next semester will be permitted to re-register for courses (though they cannot be guaranteed enrollment in the courses for which they had originally registered).

A student who wishes to transfer credits to another institution must pay in full all indebtedness to Allegheny before an official transcript of record will be issued. Any costs incurred in the collection of a delinquent account, including collection agency fees, attorney fees and other charges, will be added to the amount due.

## Allegheny College Tuition Payment Plan

Allegheny College in partnership withTuition Management Systems (TMS) at www.afford.com offers the ability to pay college expenses by enrolling in a TMS payment plan or by making a one time payment using a credit card or electronic check.

The Allegheny Tuition Payment Plan administered by TMS is recommended to help you budget payment of your educational expenses and limit your debt. This plan provides a convenient method for paying tuition, required fees, room and board in monthly installments. It is available to parents of Allegheny students and in some instances may be made available directly to students. The only cost is an enrollment fee.

Credit cards currently supported for one time payments include MasterCard, Discover and American Express. There is a convenience fee charged for credit card transactions based on a fee schedule determined by the amount of the transaction. There is a $\$ 5$ fee charged for
electronic check transactions.
In preparation of using the TMS website it is helpful to have your Student ID number, an Allegheny College statement, credit card, and banking information.

## Application of Financial Aid Funds

With the exception of wages from the College Work-Study and Campus Employment Program and some outside scholarships awarded directly to recipients, financial aid is credited directly to the Allegheny student's tuition account. Awards handled directly through Allegheny are applied equally to each of the two semesters of the academic year.

At the beginning of each smester, the student bill includes applicable pending financial aid. The aid is displayed at the bottom of the statement. Finalized aid is posted to the account early in the semester. After financial aid is posted, any aid that is pending due to incompletion is not applied to the account and the outstanding balance is due. This balance can be paid or aid can be completed and applied to the account.

Work-study and campus employment earnings are paid directly to the student for hours worked and reported. These funds are generally used for personal expenses, books, or the following semester's charges.

## Loan Disbursements

Lenders are required to make two separate disbursements of educational loans in an academic period. For loans approved for the full academic year, the first disbursement will be at the beginning of Fall Semester in August or September and the second disbursement will occur in January. For loans processed for Fall Semester only, the second disbursement will be in mid-October.

The College disburses Federal Perkins Loan funds after the student has signed the promissory note and completed the required entrance counseling session. Stafford Loans also require a signed Master Promissory note and required entrance counseling. All other educational loans must be applied for, processed and approved by the lender, certified by the Office of Financial Aid, and disbursed by the lender before being credited to the student's account.

## Deposits

All new Allegheny students are required to make a pre-matriculation deposit of $\$ 400$ to hold their place in the freshman class. After the student matriculates, this money is held by the College as a general deposit to indicate that the student plans to return to Allegheny for each succeeding academic year or semester. It also continues to obligate the College to reserve a place for that student. The student is expected to notify the Office of the Dean of Students in writing if he or she intends to withdraw from the College. This is done by July 1 prior to the start of the Fall Semester, and by one week prior to the first official day of classes for the Spring Semester. Failure to give such notification by these deadlines results in the forfeiture of $\$ 200$ of the deposit. Any balance of the deposit held by the College (after any outstanding charges have been deducted) is refundable after graduation or withdrawal from the College.

## Explanation of Fees

Tuition covers most laboratory charges and other general fees. Courses with an additional special fee include studio instruction in music and ceramics, as well as some laboratory courses. Extra expenses, such as the costs incurred for research or Senior Projects, are occasionally incurred in other courses.

## Medical Insurance

Allegheny requires that all of its students will be adequately insured in case of illness or injury while in Meadville. The Winslow Health Center provides routine diagnosis and treatment, but other services may call for illness/accident insurance that is valid in Pennsylvania.

Allegheny offers insurance coverage through Bollinger Insurance Solutions. An optional accident/sickness insurance fee (currently $\$ 250$ for the year for U.S. resident) is therefore automatically added to each student's bill.

Students may reject this College-facilitated insurance coverage by demonstrating that they have comparable coverage that is valid in Pennsylvania. Please go to your WebAdvisor account to access and complete the on-line Waiver form. (This is independent of the Health Center Fees and is subject to an annual change.)

International students are offered more comprehensive insurance coverage designed especially for them. The fee for this insurance currently is $\$ 804$ per year. (This fee is independent of the Health Center Fees and is subject to an annual change.) If appropriate, coverage may be offered on a single semester basis.

## Studio Instruction in Music

Upon registering for individual music-instruction studio classes (voice, organ, piano, orchestral instruments, etc.), the fee of $\$ 300$ per semester for a weekly half-hour lesson or $\$ 600$ per semester for a weekly one-hour lesson is assessed. If you have been billed for music lessons and are no longer planning to receive them, the lesson(s) must be dropped through the Registrar's Office via an Add/Drop card. If you believe a Music Lesson Fee is appearing on your account in error, first check your schedule on WebAdvisor to see if the lesson is still on your schedule. If it is, it will be necessary to obtain an Add/Drop card from the Registrar's Office, 210 Bentley Hall. If the lesson no longer appears on your schedule, please contact Financial Services at 1-800-376-7075.

## Fees for Auditing

Full-time students may audit additional courses with the permission of the instructor. Other individuals must: (1) obtain the permission of the instructor and of the Office of Admissions, (2) list their intention to audit the course with the Financial Services Office, and (3) pay a fee equal to one-half of the semester course fee (a four-credit course normally carries a fee of $\$ 5,975$ ). Non-degree seeking students auditing courses are responsible for any special laboratory or damage fee, but will not be charged Required Fees.

## Late Fees

Payments received after the deadline are considered late. A \$35 late payment fee will be incurred each month if there is an outstanding balance. Should you anticipate difficulty in meeting a payment deadline, please contact Financial Services prior to the deadline to discuss possible alternatives. Financial Services can be reached at 1-800-376-7075.

## Lost Card Fee

If a student ID card is lost or damaged, the student must report the issue to the Office of Safety and Security. The card is cancelled and a new card is issued. A $\$ 25$ fee will be charged to the student's account.

## Parking Fines

Parking Fines are assessed by the Office of Safety and Security. Students have three days to appeal a parking ticket. After the third day, an email notice is sent to the student informing him or her of the amount of the fine and that the fine will be billed to their student account.

## Lost Key Fee

If you lose any of the keys issued to you, you should report this to the Office of Residence Life and/or the Office of Safety and Security as soon as possible. If keys are lost, stolen, or not returned for any other reason, you will be charged $\$ 125$ per key to cover the cost of lock changes. Failure to return College keys within 24 hours of moving out will result in an improper checkout charge. Additionally, College keys should not be reproduced; such action is subject to conduct action including a fine.

## Other Special Charges

When a check is returned unpaid for any reason, $\$ 20$ will be charged to the student's account.

An administrative fee is charged to each student who elects to study on an approved off-campus program. This fee is $\$ 300$ per semester.

A processing fee of $\$ 50$ for a two-year program and $\$ 25$ for a one-year program is charged upon application to each student who applies for enrollment in a Cooperative Program (a 3-2 or 3-1 program). This fee helps to offset the costs of special record maintenance, correspondence, and transfer credit. All accounts must be in good standing before appproval for the application will be given.

## Part-Time Students

Degree-seeking undergraduate students registered for fewer than 12 semester credit hours qualify for part-time status.

In addition to a semester credit hour-based tuition, part-time students are charged the required fees of $\$ 170$ per semester unless there is evidence that their program will cause them to be absent from campus. Requests for waiver of the required fees should be submitted to the Financial Services Office. Tuition will equal the per-semester credit hour charge, $\$ 1,494$, times the number of hours for which the student is enrolled at the end of the add period. Physical Education classes are charged at the rate of two semester credit hours for each seven-week experience. Part-time status is officially determined at $5 \mathrm{p} . \mathrm{m}$. on the last day of the add period. Charges are based on registration at that time.

Students should be aware that part-time status may alter their financial aid eligibility, and they should clarify their standing with the Financial Aid Office.

## Residence Hall Contract and Refund Policy

The room charge for students residing in residence halls is $\$ 2,410$ per semester, $\$ 4,820$ per year, for doubles, triples and quads. The room charge for single rooms is $\$ 2,685$ per semester, $\$ 5,370$ per year. The charge for College-owned apartments (such as College Court) and houses is $\$ 2,865$ per student, per semester, $\$ 5,370$ per year. The charge for Allegheny Commons is $\$ 2,965$ per student, per semester, $\$ 5,930$ per year. The charge for North Village I for single rooms is $\$ 3,365$ per semester, $\$ 6,730$ per year. The charge for North Village II for single rooms is $\$ 3,155$ per semester, $\$ 6,310$ per year. For landline phone service, please contact WindStream directly (800-347-1991). Access to the Internet and cable television is provided.

Allegheny's on-campus living policy requires students to reside on campus for a total of six semesters during their first three years at college. Living in a residence hall, College-owned house, or approved fraternity house meets the requirement for on-campus residency.

Students may be exempt from the residency requirement for the following reasons:

1. The student has lived on campus at other colleges or universities (and may be exempt from the Allegheny requirement for the number of semesters he or she lived on campus elsewhere).
2. The student commutes from the primary residence of a parent or guardian. The residence must be within 50 miles of the Allegheny campus.
3. The student is married, has dependents, or other circumstances that require accommodations not available in College-owned housing.
4. The student is 23 years of age or older.
5. The student is enrolled part-time.

Students who believe that they qualify for an exemption from the oncampus residency requirement should submit a written request to the Office of Residence Life.

New students are assigned a room in a residence hall and are sent a housing contract prior to enrollment. Returning students select their rooms and sign their housing contracts or house leases during the room selection process (Room Draw) held each year. Upon signing a College housing contract or house lease, a student is guaranteed housing in one of Allegheny's residence halls or College-owned houses. This guarantee is not for a specific room or with a specific roommate, although every effort will be made to accommodate each student's individual preference. The housing contract is binding for the entire academic year. Students who can show cause may obtain permission from the Office of Residence Life prior to the end of Room Draw for a partial year contract.

With the exception of withdrawal from the College, an official Leave of Absence, a College-approved off-campus study program, or other action sanctioned by the Office of Residence Life, signed housing contracts will not be canceled without forfeiture of housing charges. Students who withdraw or take a Leave of Absence during a semester are entitled to a refund of the room charge as stated in the College's General Refund Policy.

## Identification Card

All students are provided with an Allcard, Allegheny's photo ID. All students are required to have a permanent College ID. This cards serves both as a permanent picture identification card and is keyed to serve as an access card for students living in residence halls. It is also used as a library card, to attend certain sporting events and campus-wide activites, to use the Wise Sport and Fitness Center, and to access certain class labs. The AllCard can also be linked to a new or existing PNC Bank checking account, allowing you to use your card as a debit/ATM card at participating businesses both in Meadville and elsewhere. The card may be used only by the individual to whom it is registered and is non-transferable. If lost or damaged, the student must report the issue to the Office of Safety and Security. The card is cancelled and a new card is issued upon payment of the replacement fee.

Each card comes preprogrammed with basic services. It can then be customized to suit each student's individual needs. The following services are currently available on all AllCard cards:

## Library

For checking out books and other materials at Pelletier Library.

## Dine

Students on a meal plan use the AllCard card to pay for their meals. At

Brooks, a card swipe will deduct a board meal, while at McKinley's, a card swipe will deduct MUNCH money.

## MUNCH

Flexible eating money that is included in most meal plans.

## SHOP

The AllCard card also functions as a "debit card." Funds can be predeposited in the SHOP account at the Financial Services Office.

This is the master deposit account. It can be used to make purchases in the Bookstore, eat at any food service location, or buy tickets for Campus Center events.

## Textbook Charges

The AllCard card can be used to charge only textbooks and New York Times subscriptions at the Book Store. Charges are applied to the student's tuition account and are payable within the following billing cycle.

## Activities

Use your card at the Wise Center, the 24 -hour computer lab and for admission to many sporting and campus events. It is also your voting card for on-campus elections.

## Residence Halls

Various residence halls offer keyless card access into the building

## Off-campus Banking

Link you Allegheny College AllCard to your PNC Bank Ascount(s). Once the card is linked to your checking account, it becomes your ATM card too. For more information visit pnc.com/Allegheny, call 1-877-PNC-1000 or stop by the PNC Bank Branch at 868 Park Avenue.

## Meal Plans

At Allegheny College our dining program offers students a variety of options to make their dining experience enjoyable. McKinley's Food Court has proven to be a very popular option for students and offers a variety of food choices as well as extended hours. Brooks Dining Hall offers a traditional setting with a full-time chef who incorporates student preferences and feedback into the menu offerings. Both venues provide an opportunity for students to enjoy the convenience of oncampus dining through a wide selection of meal plan options. Students have access to dining options from early in the morning until late at night, even into the very early morning hours on weekends.

Students may request or change a meal plan by completing the appropriate form on WedAdvisor through the first three weeks of classes.

The College offers the following meal plans for the 2011-2012 academic year:

| Plan | $\underline{\text { Per Semester }}$ | $\underline{\text { Full Year }}$ |
| :--- | :--- | :--- |
| Plan A | $\$ 2,395.00$ | $\$ 4,790.00$ |

235 meals with $\$ 190$ in MUNCH* money per semester.
Plan B $\quad \$ 2,395.00 \quad \$ 4,790.00$

125 meals with $\$ 715$ in MUNCH* money per semester.
Plan C $\quad \$ 2,170.00 \quad \$ 4,340.00$

165 meals with $\$ 320$ in MUNCH* money per semester.
Plan D $\quad \$ 2,170.00 \quad \$ 4,340.00$
85 meals with $\$ 720$ MUNCH* money per semester.
Plan F $\quad \$ 1,760.00 \quad \$ 3,520.00$
45 meals with $\$ 555$ MUNCH* money per semester.
Plan G $\quad \$ 1,760.00 \quad \$ 3,520.00$
100 meals with $\$ 260$ MUNCH* money per semester.
Plan H \$ $500.00 \quad \$ 1,000.00$

30 meals with $\$ 105 \mathrm{MUNCH}^{*}$ money per semester.
Plan I $\quad \$ 2,460.00 \quad \$ 4,920.00$

275 meals with $\$ 80 \mathrm{MUNCH}^{*}$ money per semester.
Plan J \$2,460.00 \$4,920.00
90 meals with $\$ 1,030 \mathrm{MUNCH} *$ money per semester.
Plan K
\$ 720.00
\$1,440.00

30 meals with $\$ 305 \mathrm{MUNCH}^{*}$ money per semester.
*MUNCH funds are deposited in a personal declining balance account and are considered to be part of the meal plan. MUNCH funds and Brooks meals remaining on account at the end of each semester will be forfeited.

All students living in College residence halls are required to participate in a meal plan. Students are required to participate in Plan A, B, C, D, I or J during their first two semesters at Allegheny. Students who have lived in College residence halls for at least two semesters may choose from Meal Plans A through G, I or J. Students living in Collegeowned apartments and houses are required, at a minimum, to purchase Plan H or K during each semester, though they may choose to participate in a higher plan.

Off-campus or commuter students may participate in any of the meal plans if they so desire and may also purchase individual meals at any dining location. Some fraternity houses have meal programs for their own membership.

Students who were not on a meal plan during Fall Semester have the option of signing up for one prior to enrollment for Spring Semester.

Students who have special dietary needs, as prescribed in writing by a physician, may obtain assistance through the Director of Dining Services at 814-332-2326. Dining Services will make every possible effort within the capacity of its food preparation facilities and staff to meet temporary or specialized dietary requirements on campus.

## Changing Meal Plans

Meal Plans A through G provide approximately 18,15 , or 10 meals per week. Meal Plans I and J were added to provide $20+$ meals per week. Within these weekly levels, the plans offer variation per dining hall.

You can make a meal plan change within the range of plans available to you based on your residence and year. You can change your plan online up until three weeks after the start of classes.

All meal plans can be changed through the first three weeks of classes. For Plans A-G, I or J the full amount of your previous plan is credited and the student is charged for the full amount of the new plan. All meals and munch used to date will be applied to the new plan. Any transfers of meals or munch resulting in a negative balance will be reviewed by Financial Services. For changes to Plan H or K, a prorated credit for the remainder of the semester will be applied to the student bill and a charge for Plan H or K will be added.

## General Refund Policy

If a student withdraws or is dismissed from the College before the beginning of any academic semester (the first official day of classes), all tuition, fees, and room and board charges will be refunded. There is no refund for a course that is dropped during the semester either with or without grade penalty.

If a student withdraws, takes a leave of absence, or is dismissed after
the beginning of the semester, Allegheny will use the following refund policy.

The date of withdrawal will be one of the following: the date the student initiated the institution's withdrawal process with the Dean of Students Office or the midpoint of the semester if the student leaves without notifying the institution. The Dean of Students Office will establish the official date of withdrawal.

Federal regulations state that Title IV aid, and all other aid, is earned by the student in a prorated manner per diem, based on the academic calendar, up to the $60 \%$ point in the semester. Title IV aid, and all other aid, is viewed as $100 \%$ earned after that point in time. After the $60 \%$ point, no aid will be returned. See Return of Title IV Funds Policy for more information.

Refunds on all charges including tuition, required fees, room and board will also be prorated per diem, based on the academic calendar, up to the $60 \%$ point in the semester. There are no refunds after that point in time.

Students will not receive a refund due to reduced charges prior to the return of financial aid to the appropriate sources. In some cases, the student may still carry a balance after the refund calculations are completed. Payment will be due 30 days after notification of balance. If a credit balance results from the refund process, refund checks will be mailed to the student's home address.

## Return of Title IV Funds Policy

The Financial Aid Office is required by federal statute to recalculate federal financial aid eligibility for students who withdraw, drop out, are dismissed, or take a leave of absence prior to completing $60 \%$ of a payment period or term. The federal Title IV financial aid programs must be recalculated in these situations.

Earned Title IV Funds are federal Title IV funds used to cover education costs according to the length of time the student was enrolled before withdrawing. The amount of funds earned is directly proportional to the time enrolled, through $60 \%$ of the term. After $60 \%$, the student is considered to have earned all aid. Unearned Title IV Funds are the amount of grant and loan assistance awarded under Title IV that has not been earned by the student and must be returned to the programs.

If a student leaves the institution prior to completing $60 \%$ of a payment period or term, the financial aid office recalculates eligibility for Title IV funds. Recalculation is based on the percentage of earned aid using the following Federal Return of Title IV funds formula: Percentage of payment period or term completed $=$ the number of days completed up to the withdrawal date divided by the total days in the payment period or term. (Any break of five days or more is not counted as part of the days in the term.) This percentage is also the percent age of earned aid.
Funds are returned to the appropriate federal program based on the percentage of unearned aid using the following formula: Aid to be returned $=(100 \%$ of the aid that could be disbursed minus the percentage of earned aid) multiplied by the total amount of aid that could have been disbursed during the payment period or term.
If a student earned less aid than was disbursed, Allegheny College would be required to return a portion of the funds and the student
would be required to return a portion of the funds. Keep in mind that when Title IV funds are returned, the student borrower may owe a debit balance to the institution.

If a student earned more aid than was disbursed to him/her, Allegheny College would owe the student a post-withdrawal disbursement which must be paid within 120 days of the student's withdrawal.

Allegheny College must return the a mount of Title IV funds for which it is responsible no later than 45 days after the date of the determination of the date of the student's withdrawal.

Refunds are allocated in the following order:

- Unsubsidized Federal Stafford Loans
- Subsidized Federal Stafford Loans
- Unsubsidized Direct Stafford Loans (other than PLUS loans)
- Subsidized Direct Stafford Loans
- Federal Perkins Loans
- Federal Parent (PLUS) Loans
- Direct PLUS Loans
- Federal Pell Grants for which a Return of funds is required
- Federal Academic Competitiveness Grant (ACG)
- National SMART Grant
- Federal Supplemental Opportunity Grants (FSEOG)for which a Return of funds is required


## Financial Assistance

Need-based and non-need-based financial aid from many sources is available to assist Allegheny students in meeting their educational expenses. Aid is usually offered in the form of a financial aid package that may include grants, loans, and employment. Funds from institutional, federal, state, and private sources are used in this process. Together with resources available from the family, the amount of the financial aid and optional loans may meet the annual cost of attendance (includes tuition, fees, room, board, and allowances for books, transportation, and personal expenses).

Allegheny encourages all families to investigate their eligibility for need-based aid at an early stage of the college search process. In addition to need-based aid, Allegheny currently offers an achievement-based scholarship program. Eligibility for achievement-based scholarships is determined without regard to financial need. See "Achievement-Based Aid" in the next section for further information. There are also special loan programs available to families who have no demonstrated financial need, as determined by analysis of the Free Application for Federal Student Aid (FAFSA). Detailed information on these and other programs is available from the Financial Aid Office.
(Special note: Allegheny competes in Division III of the National Collegiate Athletic Association (NCAA) and honors the Division III limitations.)

## Application

Financial need is defined as the amount of the annual educational expense that cannot be met through family resources. This amount is determined by the Allegheny Financial Aid Office in an evaluation of the information collected on the Free Application for Federal Student Aid (FAFSA). The FAFSA must be completed annually by all students seeking financial assistance.

All first-time aid applicants are encouraged to submit a completed FAFSA not earlier than January 1 and not later than February 15 in the year of application. Students returning to Allegheny are asked to file their FAFSA by March 15. Applications filed after March 15 will be considered late, and equal consideration for all forms of financial aid cannot be guaranteed. (Students may apply online at www.fafsa.ed.gov.) Allegheny's Federal Code 003230, should be listed as one of the choices on the FAFSA.

## Verification

Allegheny College is required by federal regulations to verify parents' and students' income, along with family size and number of family members currently enrolled at institutions of higher learning. Allegheny reserves the right to verify information provided by all financial aid recipients. Financial aid eligibility will not be finalized until all requested documentation, including federal tax returns and completed verification forms (provided by the Financial Aid Office) is received by the specified due date. Allegheny College must resolve any conflicting information and may request additional documentation.

In order to distribute institutional funds equitably, Allegheny may verify the enrollment of family members attending different institutions, usually in December. If a discrepancy occurs between the number of family members reported to be enrolled at the time the financial aid application is completed and the number actually enrolled (at least halftime for one semester), institutional grants may be affected.

## Financial Aid Satisfactory Academic Progress Policy (SAP)

All financial aid applicants must maintain minimum satisfactory academic progress to receive financial assistance. Progress must be achieved in both qualitative and quantitative measures indicated in this section.

## Course Completion

To receive federal and state financial aid, students must successfully complete at least a minimum number of credits every two semesters of full-time enrollment. (See chart below.) Repeated courses will not be counted toward credit hours completed. For federal financial aid purposes, a full-time student is expected to complete all degree requirements within a maximum of 10 semesters (five years). Students may not receive federal aid after registering for 192 credits, regardless of the numbers of credits completed.

Students are also required to meet a qualitative measure of academic performance in order to receive federal financial aid. By federal regulation after two semesters of enrollment, a student must have achieved at least a 1.5 cumulative grade point average. After four semesters of enrollment, a student must maintain a cumulative grade point average of at least 2.00 in order to receive federal financial aid.

The following chart lists when the Financial Aid Office is required to check each student's grade point average and cumulative credits completed to receive federal financial aid.

| End of Semester | Min. cum. GPA | Min. credits <br> complete |
| :---: | :---: | :---: |
| 2 | 1.50 | 24 |
| 4 | 2.00 | 48 |
| 6 | 2.00 | 74 |
| 8 | 2.00 | 101 |
| 10 | 2.00 | 131 |

## Repeat Coursework

Both attempts at coursework for students who repeat a course will count toward course completion; however, only the most recent grade will be used to determine the cumulative GPA.

## Credit / No Credit Grade Option

For coursework taken on the Credit/No Credit basis, only a grade of Credit will count towards course completion. Neither a Credit ("CR") grade nor a No Credit ("NC") grade is calculated in the cumulative GPA.

## Transfer Students

Transfer students' coursework accepted for credit at Allegheny College from institutions previously attended will be used to evaluate course completion. Only grades earned at Allegheny College will be used to calculate a cumulative GPA.

## Transfer Credit

Courses accepted for credit taken at another institution will be counted toward course completion, but will not be used in the calculation of the cumulative GPA.

## Part-Time Enrollment

The normal time frame for completion of a course of student will vary for part-time students. Progress evaluation for part-time students will be determined by the completion of courses attempted. Students enrolled must complete two-thirds of the number of courses attempted. The same cumulative GPA requirements apply as directed under Financial Aid Satisfactory Academic Progress Policy requirements.

## Course Withdrawals

Coursework resulting in a "withdrawn" status do not count as courses completed and are factored in the maximum timeframe for degree requirements, i.e., one semester of courses with a "W" status count as a semester toward the 10 semester maximum. These courses do not affect calculation of the cumulative GPA.

## Course Audits

Audited coursework does not count toward course completion and is not used in the determination of the cumulative GPA.

## Incomplete Grades

Courses with an incomplete status will not be counted as complete until a passing letter grade is received. They also will not be included in the cumulative GPA calculation until a letter grade is achieved. Students are responsible for informing the Office of Financial Aid of a grade change and have the option of appealing for a re-evaluation through an appeal.

## Readmission After a Leave of Absence

Students who are readmitted to Allegheny College after a period of non-enrollment will be evaluated using the stated standards regarding course completion and GPA, taking into consideration all coursework from past periods of attendance and transfer credits. Periods of nonenrollment are not considered in the maximun time frame.

## Additional Information

Academic progress is measured annually by the Financial Aid Office. Students who fail to successfully complete the minimum requirements, but are allowed to remain at Allegheny by the Academic Standards Committee, will be placed on financial aid probation. This allows one semester of financial assistance to bring the academic record up to the minimum standards (state aid may be eliminated during this period). After the financial aid probation semester, the student must be making
satisfactory academic progress according to the chart, or appeal for an additional semester of aid.

Official notification of a financial aid probation semester or suspension of aid will be made by the Financial Aid Office. Students wishing to appeal these decisions, and who have legitimate reasons for doing so (e.g. serious illness) should put their requests in writing to the Financial Aid Office at least two weeks prior to the start of the semester for which the exception is sought. A student's appeal must include why he/she failed to make satisfatory academic progress and what has changed that will allow the student to make satisfactory academic progress by the end of the next semester. An academic plan must also be approved by a financial aid administrator for continued financial aid probation.

An approved appeal and academic plan will allow another semester of financial aid probation. Failure to meet the stated minimums after a second consecutive semester of financial aid probation will result in a suspension of all financial aid until standards are met.

Students granted an approved Leave-of-Absence by the Dean of Students Office after the beginning of a semester may still be eligible for prorated federal finanaical aid after refunds are considered, but would not receive grades for that semester. Semesters with approved Leaves-of-Absence would automatically place a student on financial aid probation upon return, and the student will be expected to successfully complete 12 credits and a minimum 2.0 grade point average during the probation semester. Also, the semester for which the student is granted the Leave-of-Absence is included as part of the allowable 10 semesters of aid and 192 attempted credits. Students granted more than one Leave-of-Absence after the beginning of a semester lose federal aid eligibility upon their return from the second or subsequent leaves.

## Special Note

The requirement for a bachelor's degree at Allegheny College includes the successful completion of at least 128 credits. To graduate in four years, a student must on average complete 16 credits per semester. Some financial aid programs, including most state grant programs, have eight semester limits for funding. Allegheny-funded aid is also limited to eight semesters. A student with legitimate academic reasons for continuing into the fifth year may petition, in writing, to the Financial Aid Office for extended institutional financial assistance. Institutional merit scholarships are limited to eight semesters without exception; however, limited need-based financial aid may be extended for up to two additional semesters upon approval by a financial aid administrator..

## Sources of Need-based Aid

## Institutional Grants

Allegheny College provides grants to students on the basis of financial need as demonstrated through the filing of the FAFSA. In 2010-2011, Allegheny provided over $\$ 32$ million in institutional grant assistance, in the form of achievement-based scholarships and need-based grants. Need-based grants include funded sources (Endowed or named scholarships) and unfunded sources (Allegheny Grants).

## Federal Aid

Federal financial aid programs are available in the form of grants, loans, and employment. All federal aid, except Pell grants require the student to maintain at least half-time status (minimum of six semester hours per semester).

Consideration for the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant (FSEOG), Federal Perkins Loan, and Federal Work Study (FWS) will be given to each student who files the FAFSA.

## Federal Pell Grant

Through this federally-funded grant program, a student may be entitled to receive up to $\$ 5,550$ per year. For full-time eligibility, the student must enroll in a course load of twelve semester hours in any given semester.

## Federal Supplemental Education Opportunity Grant (FSEOG)

This grant (non-repayable) fund provides monies for Allegheny College to offer to students who demonstrate exceptional financial need.
Recipients must be eligible for the Federal Pell Grant program.

## Federal Perkins Loan

This loan fund permits needy students to borrow for undergraduate study, repayable at a five percent interest rate. Repayment begins 12 months after the student has ceased to be enrolled at least half-time (interest begins to accrue after nine months) and may be deferred when a student attends graduate or professional school on more than a halftime basis. The Perkins Loan document is a Master Promissory Note (MPN) and only needs to be completed once during enrollment at Allegheny. The Perkins Loan MPN is available through the Financial Aid Office. Online Perkins Loan Entrance Counseling must be completed at www.mappingyourfuture.org before a completed Perkins Master Promissory Note is valid.

## Direct Federal Stafford Loan

The federal Stafford Loan program offers both need-based financial assistance and non-need-based assistance. The maximum eligibility for both loans combined is $\$ 5,500$ for freshmen; $\$ 6,500$ for sophomores; and $\$ 7,500$ each year for juniors and seniors, up to $\$ 31,000$ over a fiveyear period. The need-based loan is subsidized by the federal government, and the student does not pay interest until repayment begins six months after the student is no longer enrolled at least half-time (six credits per semester). The amount of eligibility is determined by the Financial Aid Office after the FAFSA is submitted to the federal processor. After eligibility for subsidized Stafford Loan funds is determined, any remaining amount of Stafford Loan, up to the maximums described above, may be available as an unsubsidized loan. The student is responsible for the payment of interest on any unsubsidized loan during in-school periods, but interest payments can be deferred and added to the payment of principal after the six months grace period of less than half-time enrollment. The Stafford Loan application is a Master Promissory Note (MPN) and only needs to be completed once during enrollment at Allegheny. MPN applications are available through www.studentloans.gov. Students must also complete online Stafford Loan Entrance Counseling at www.studentloans.gov before the Stafford loan is disbursed.
Direct Federal Parent Loan for Undergraduate Students (PLUS) Parents may borrow up to the cost of education (minus other forms of assistance) each academic year with credit approval. Repayment begins within 60 days after the loan has been disbursed. Interest rate is fixed.
Parent borrowers may complete a Master Promissory Note (MPN) and request a loan amount electronically at www.studentloans.gov. Parents complete only one MPN during their student's enrollment since no dollar amount is listed on the MPN. Completion of the FAFSA is required for the PLUS.

## Federal Work Study (FWS)

This federally-subsidized program provides funding for employment to students who demonstrate financial need. Eligible students may find employment on campus or in positions available at local agencies that have contractual arrangements with the College. Participating students usually work an average of 8 to 12 hours per week when school is in session. Employees under this program receive monthly paychecks for work performed under FWS. New employees are paid at least the minimum federal hourly wage; higher rates of pay are possible.

## State Grants

Application for state grant assistance must be made each year by completing the FAFSA. For Pennsylvania residents, the FAFSA must be completed by May 1. Pennsylvania State grants range up to $\$ 4,348$ per academic year and are contingent upon the student maintaining at least half-time status.

Other states, including Delaware, Maine, Massachusetts, Ohio, Rhode Island, Vermont and West Virginia, permit grants from their state agencies to be used at Pennsylvania institutions for full-time study.

## Other Aid

## Community Scholarships / Outside Grants

Private funds in the forms of scholarships or grants are frequently awarded by various clubs and organizations within the student's home community. All outside scholarships become part of the student's financial aid award. Usually the effect of the outside scholarship will be to increase the total financial package by one-half of the scholarship's value. When that is not possible (federal need is maximized), one-half of the value of the outside scholarship will reduce the student's self-help component (loan and work) of the financial aid package. In either case, the remaining one-half of the scholarship's value will reduce the Allegheny Grant. This policy enables the Financial Aid Office to allocate the necessary Allegheny Grant funding to more students than it otherwise could.

## Campus Employment

This program is completely funded and administered by Allegheny and is not based on financial need. Campus employment offers the opportunity to work on campus only. Students working under the program receive monthly paychecks for hours worked and pay rates vary with experience and job classification.

## Alternate Financing Options

There are a variety of financing options available after need-based and achievement-based financial aid has been considered. The Financial Aid Office will provide students and parents with information on several loan options upon request. When applying for alternative loans, time is required by the lender to obtain and review credit reports and to receive college certification of eligibility. It is advisable for students and/ or parents to begin the application process at least four weeks before payment is due.

## Policy for Providing Alternative Loan Information

At Allegheny College, we believe families should have as much information as possible to make individual loan choices that are in their best interest. Borrowers often find it challenging to gather accurate loan information and to select a reliable lender. Many families rely on the Office of Financial Aid for information and assistance. In an effort to
provide the same personal service regarding loan options that Allegheny offers our families in other areas, the Associate Dean of Enrollment and Financial Aid and the Financial Aid Advisor at Allegheny College work together to stay up-to-date regarding current Alternative loan information.

Neither Allegheny College, nor any of its employees, benefit financially from families using any specific lender. Any information we provide regarding alternative loans is for information purposes only and should be used in comparison with other loan options of the family's choice.

Some of the loan characteristics we suggest families evaluate for comparison are:

- Interest rates
- Fees charged
- Interest rate reduction options
- Cosigner release options (for alternative loans)
- Savings potential
- Other borrower benefits (borrower age, loans for back balances, academic progress requirements)
After a family has researched and selected Alternative loan of their choice, and once the lender approves the loan application, Allegheny College promptly certifies the loan so the funds can be credited as soon as possible to the student's account.

Families who have questions regarding Federal Stafford, PLUS, or Alternative student loans are encouraged to contact the Office of Financial Aid for more information or individual counseling.

## Receipt of Funds

With the exception of the Student Employment Program and some local scholarship agencies that may make their awards directly payable to the individual, financial aid sources are credited directly to the student's College account. Funding handled directly through Allegheny is normally divided into two equal amounts and disbursed twice during the academic year (once per semester).

## Financial Aid Off-Campus Housing Policy

Without the overhead involved in campus housing (housekeeping, maintenance, etc.), it is recognized that students have fewer costs associated with living in the Meadville community. Therefore, the standard cost of attendance for students living off campus is less than those remaining in the campus-owned housing. With the reduction to cost, there is a similar reduction to financial need. The result is a reduction to financial aid.

For 2010-2011, choosing to live off campus may result in as much as $\$ 2,500$ reduction in need-based gift assistance (grants and endowed scholarships). Merit scholarships (i.e., Trustees Scholarship) are not based on financial need, and therefore are never reduced based on housing choice.

Exemptions to this policy are not made based on the expenses of a student's personal choice in housing. Instead, it is considered the responsibility of the student and his/her family to find housing that is affordable given the change to financial aid eligibility. All students are encouraged to explore their options, and to discuss the effect of moving off campus with the Financial Aid Office before committing to any rental agreement.

Students commuting from their parent's home receive up to $\$ 3,900$
less in need-based financial aid (compared to those living on campus) due to absence of room and board charges.

## Certification of Veterans

Allegheny College is approved for veteran's educational benefits. The Financial Aid Office has responsibility for certifying the enrollment of veterans and other eligible dependents of veterans. Inquiries regarding eligibility for benefits, application procedures, and receipt of benefits may be directed to this office. Students who are receiving educational benefits should notify the Financial Aid Office of any changes in their student status. The College is required to report changes in enrollment status to the Veterans' Administration. The Veterans' Administration will also be notified when a student is suspended or dismissed or does not meet the academic progress requirements after serving a probationary period of two semesters.

Questions relating to financial assistance at Allegheny should be directed to the Financial Aid Office in Schultz Hall (814/332-2701).

## Scholarship Funds and Prizes

## Achievement-Based Aid

## Trustee Scholarships

The Trustee Scholarship program provides achievement-based awards of up to $\$ 80,000$ for up to four years of study at Allegheny. Students recognized as Trustee Scholars usually rank in the top 25 precent of their high school class (or otherwise excelling in class work and other activities when the school does not rank), and have SAT/ACT scores consistent with their academic performance. Allegheny values students who balance their academic excellence with other distinctive activites. The top scholarship is awarded to the very best of the best, typically to only the top $5 \%$ of our applicants each year. A limited number of Trustee Scholarships are available to highly-qualified transfer students.

Consideration for the Trustee Scholarship is automatic when students apply for admission under both Early Decision (November 15) and Regular Decision (by February 15). Students must be registered as fulltime, degree-seeking students to qualify for this scholarship.

## Financial Assistance Funds

The generosity of alumni, foundation, corporations, and friends of the College has provided a number of special scholarships, scholarshiploans, and prize funds. It is expected that recipients of academic prizes and scholarships will have been in compliance with the College Honor Code during the preceding academic year.

## Scholarship Funds

The following funds are used to provide scholarships:

## Earl Adams Economics Scholarship Fund

The income from this fund, established by Dr. Roger W. Tufts, Class of 1976, and the Elkes Foundation in honor of Dr. Earl Adams, Professor Emeritus of Economics at Allegheny College, shall be used to partially cover senior year comprehensive fee expenses for selected students who have demonstrated excellence in the field of economics.

## Alden Academy Scholarship Fund

The income from this fund, established by Robert C. Crawford, Class of 1915, is used to provide scholarship assistance to an eligible male student with a high scholastic standing in the preceding year. All upperclass male students are eligible, with preference given to members of Delta Tau Delta fraternity if all other eligibility requirements are equal.

Allegheny College Association Continuing Education Scholarship
Offered to women 25 years of age or older who are residents of Crawford County and who have not completed more than two years of college. Three scholarships are awarded annually through an application available from the ACA Scholarship Committee Chairperson.

Scholarships entitle recipients to tuition costs for up to three courses in one year, plus a stipend. Additional funding for this program is provided through the Kappa Alumnae Chapter of Alpha Gamma Delta in memory of Dr. Edith Rowley, Class of 1905, former librarian and dean.

## Christian L. Allison '83 and Jane K. France Endowed Management Studies Scholarship Fund

The income from this fund, established by Christian L. Allison, Class of 1983, and Jane K. France, is used to provide scholarship support for eligible students, with a preference for studrents studying managerial economics.

## Alumni Memorial Scholarship Fund

To perpetuate the memory of or to honor Alleghenians and friends of Allegheny, this fund provides income from the contributions of alumni, family, and friends to be awarded annually to undergraduate students whose academic and extracurricular achievements exemplify the high ideals of the College and who demonstrate a need for supplemental financial resources to complete their education. In those cases where a gift has been designated for a specific purpose, the wishes of the donor(s) will be honored.

## Orville and Dorotha Anderson and Anderson Coach and Tour

## Scholarship Fund

The income from this fund, established by O.D. Anderson, Inc., is used to provide scholarship assistance to qualifying students, with preference given to students from the greater Greenville, Pennsylvania area, then from Northwestern Pennsylvania.

## Helen Elizabeth Averill Fund

The income from this fund, established by Mrs. Mary Martin Averill, Class of 1884, in memory of her daughter, Helen Elizabeth Averill, is used to provide scholarship assistance to eligible female students.

## Mary Fisher Ayers Scholarship Fund

The income from this fund, established by Mary Fisher Ayers, is used to provide scholarship assistance to eligible students.

## Bagley Fund

The income from this fund is used to provide scholarship assistance to graduates of Corry High School in Pennsylvania. If at any time there are no eligible students from Corry High School in attendance, then the income may be awarded to other eligible students who demonstrate a high moral character and ambition. The student is to be selected by the President of the Board of Education, the Superintendent of Corry Schools, and the Principal of the High School

## John D. Bainer Scholarship Fund

The income from this fund, established by Pennbank, is used to provide scholarship assistance to an eligible male or female from the Meadville, Pennsylvania, area whose attendance at Allegheny would be made possible through this funding.

## C. Dick Baker Scholarship Fund

The income from this fund, established by Ruth E. Baker in memory of
her husband, C. Dick Baker, is used to provide scholarship assistance to eligible students demonstrating financial need.

## Norman Baker Family Scholarship Fund

The income from this fund, established by Dr. Norman H. Baker, Class of 1950, is used to provide assistance to pre-med students, with preference given to those from the Youngstown, Ohio, area.

## S. Ethel and S. Carl Baker Scholarship Fund

The income from this fund, established by Frank T. and Mary Donnan Baker, both of the Class of 1957, Dorothy Baker Pesta, Class of 1959, and Richard Pesta in memory of their parents, S. Carl and S. Ethel Baker, is used to provide scholarships to eligible students majoring in either math or the sciences. Preference is given to students with a demonstrated interest in music.

## James Alexander Ballantyne Scholarship Fund

The income from this fund, established by Hettie F. Ballantyne in memory of her husband, James Alexander Ballantyne, is used to provide scholarship assistance for sons and daughters of ministers of the Western Pennsylvania Conference of the United Methodist Church and for students from within the bounds of that Conference who are studying for the ministry.

## George J. Barco Student Aid Fund

The income from this fund, established through a bequest of George J. Barco, Class of 1930, is used to provide scholarship assistance to eligible students with demonstrated personal qualities of high moral character, serious commitment to pursue attainment of the full benefits of a college education, and genuine interest in service to the community and others. Preference is given first to students from the Meadville, Pennsylvania area and then to students from Crawford County, Pennsylvania. No student may be selected who is not a resident of Pennsylvania.

## John C. Barkley Scholarship Fund

The income from this fund, established by Marie W. Barkley and Charles R. Barkley, Class of 1939, is used to provide scholarship assistance to eligible students.

## Maude K. Barling Fund

The income from this fund, established by Maude K. Barling, is used to provide scholarship assistance to eligible students.
Martha Petersen Bartberger, Class of 1903, Scholarship Fund The income from this fund, established by Charles, Class of 1935, and Helen Bartberger in memory of his aunt, Martha Petersen Bartberger, Class of 1903, is used to provide scholarship assistance to eligible and deserving students.

## Arthur L. Bates Scholarship

The income from this fund, established by Mrs. Arthur L. Bates in memory of her husband, is used to provide scholarship assistance to eligible students.

## Emily R. and Arthur L. Bates Scholarship Fund

The income from this fund, established by a gift from Josephine Bates Gill, Class of 1934, in honor of her parents, is used to provide scholarship assistance to eligible students with good academic records who might not otherwise be able to attend or continue college. The Honorable Arthur L. Bates served ably as an Allegheny Trustee from 1907 until 1934.

## Baucus and Company Scholarship Fund

The income from this fund is used to provide scholarship assistance to students majoring in Economics. If there are no eligible Economics majors, the income from the fund may be used to provide scholarship assistance to students with other majors.

## Carrie Graham Bauer Scholarship Fund

An annual gift from a trust, created through a bequest of Carrie Graham Bauer, is used to provide scholarship assistance to students from Allegheny County, Pennsylvania.

Chester A., Class of 1912, and Beulah A. Baum Scholarship Fund
The income from this fund, established by Chester A. Baum, Class of 1912, and his wife, Beulah A. Baum, is used to provide scholarship assistance to eligible students who have records of good citizenship; whose residency is in Cranberry Township, Pennsylvania, or Venango County, Pennsylvania; and whose continuing education may be jeopardized by insufficient funds. If there are no eligible applicants from Cranberry Township or Venango County, then the residency requirement is waived.

## Milton Jackson Beaty Memorial Fund

The income from this fund, established through a bequest of Elizabeth $S$. Beaty, is used to support and advance international understanding through scholarship aid to worthy and needy students from other countries or students planning a career in international relations or foreign service.

## Perry Allen Beck Memorial Scholarship Fund

The income from this fund, established through a bequest of Isabelle Marvin Beck, Class of 1918, in memory of her husband, Perry Allen Beck, Class of 1913, is used to provide scholarship assistance to eligible students.

## Howard Beebe, Class of 1942, Memorial Scholarship Fund

The income from this fund, established by Ruth Beebe, Class of 1943, in memory of her husband, Howard Beebe, Class of 1942, on the occasion of the 50th Reunion of the Class of 1942, is used to provide scholarship assistance to eligible students.

## Leon A. Beeghly Student Aid Fund

The income from this fund is used to provide scholarship support to deserving students.

## Ronald C. Bendekovic '93 Memorial Scholarship

The income from this fund, established by the teammates, classmates, fraternity brothers and friends of Ronald C. Bendekovic '93, is used to provide scholarship assistance and recognition to eligible students with preference to students from Beaver County, Pennsylvania. Additionally, this fund is meant to foster the qualities of leadership, scholarship, dedication and hard work that exemplified Ron's career as a student, athlete and coach at Allegheny College and beyond.

## Lyle E. and Mary H. Biehler Scholarship Fund

The income from this fund, established by Lyle E. Biehler and his wife, Mary, Class of 1921, is used to provide assistance to hard working students who, due to limited family resources, might not otherwise be able to attend Allegheny. Preference is given to students first from Salem, Ohio, then the Youngstown area, then Northeast Ohio.

George L. and Jeanne P. Bird Scholarship Fund
The income from this fund, established by George L. Bird, Class of 1922,
in memory of his wife, Jeanne Pinard Bird, is used to provide scholarship aid for students who have demonstrated a strong desire to work in the field of writing.

## Grace Blaisdell-Coggeshall Fund

The income from this fund, established by Dr. Norman Coggeshall in memory of his mother, is used to provide scholarship assistance to eligible students who would not otherwise be able to attend Allegheny College.

## Paul E. Block '75 Scholarship Fund

The income from this fund, established by Paul E. Block, Class of 1975, is used to provide scholarship aid and recognition to outstanding students with proven financial need. The scholarship is awarded to economics majors, with preference given to those eligible students who are interested in a career in business, in accounting, or in law.

## Mildred Hausser Bosak Scholarship Fund

The income from this fund, established in memory of Mildred Hausser Bosak, Class of 1932, by her husband, Francis C. M. Bosak, is used to provide support to students majoring in art or music who would be unable to attend Allegheny without some assistance.

## Laurence C. Boylan, Class of 1932, Scholarship Fund

The income from this fund, established by Elizabeth Eldridge Boylan in memory of her husband, Laurence C. Boylan '32, is to be used to provide scholarship assistance to a student who has a grade point average of 3.2 or better with preference to a member of the Phi Kappa Psi fraternity. Dr. Boylan was very active in athletics and his fraternity as a student at Allegheny.

## Frederic Breed, Class of 1898, Fund

The income from this fund is used for encouragement of creative intellectual achievement.

## Sebert Brewer Memorial Scholarship Fund

The income from this fund is used to provide scholarships for needy students majoring in economics.

## Florence Dyer Brownell Memorial Fund

The income from this fund, established by Dr. W. A. Brownell, Class of 1917, and Mrs. W. A. Brownell in memory of their daughter, is used to provide scholarships for female students.

## John E. Brownell, Class of 1924, Scholarship Fund

The income from this fund, established by Louise Brownell in memory of her husband, is awarded to a student of outstanding academic ability with demonstrated financial need. Preference is given to students from Allegheny County, Pennsylvania.

## Butler Scholarship Fund

The income from this fund, established by Mrs. John A. Gibson, is used to assist students from Butler, Pennsylvania.

## Robert A. Byron Chemistry Scholarship Fund

The income from this fund, established by Robert S. Byron, Class of 1954, and Susan Williams Byron, Class of 1954, in memory of their son, is used to provide scholarship assistance to students with demonstrated need or academic qualifications who are majoring in chemistry.

## Clementine Calvin Fund

The income from this fund, established by a bequest of Clementine Calvin, is used to aid students preparing for missionary or ministerial service.

## John S. and Gertrude T. Campbell Scholarship Fund

The income from this fund, created by funds received from the Gertrude T. Campbell Educational Trust, is used for scholarships for students who are residents of Butler County, Pennsylvania.

## Father John J. Cannon Scholarship Fund

Created by Father Cannon to assist Allegheny freshmen students whose home is in the city of Meadville, West Mead Township, or Vernon Township, Crawford County, Pennsylvania. Preference is given to applicants from St. Brigid's parish, but if there are no eligible applicants from this parish, students of any faith, race, creed, or color are eligible for consideration. Preference will also be given to freshmen, but if there are no eligible candidates, a previous holder of the scholarship may have it renewed once. All applications must be accompanied by a letter of recommendation from the student's minister, priest, or rabbi.

## Carrie Jay Carnahan Memorial Fund

The income from this fund, established by Ella M. Carnahan, in memory of her sister, Carrie Jay Carnahan, is used to provide scholarship assistance to students of foreign ministries.

## Ella M. Carnahan Fund

The income from this fund, established by friends in honor of Ella M. Carnahan, is used to provide scholarship assistance to eligible students.

## Marie, Class of 1939, and Eugene, Class of 1939, Cease Scholarship Fund

The income from this fund, established by Marie and Eugene Cease, both of the Class of 1939, is awarded at the close of the junior year to an eligible and worthy student who is concentrating in the field of psychology. The candidate is selected by the Department of Psychology.

## CFAC Scholarship Endowment Fund

The income from this fund, established by alumni and friends during the Campaign for Allegheny College, is used to provide scholarship assistance to students.

Helen Ida Chaney, Class of 1945, Scholarship Fund
The income from this fund, established by her family in memory of Helen Ida Chaney, Class of 1945, is used to provide scholarships for eligible students, with preference given to women who are interested in international affairs, government, and foreign languages.

## Church of the Covenant Scholarship Fund

Given by the Church of the Covenant (Presbyterian), Erie, Pennsylvania, this scholarship award is given annually to a recipient named by the church.

## Clarke Scholarship Fund

The income from this fund, established by Paul W. Clarke, Class of 1923, and Helen Clarke, is used to provide scholarships for students who evidence large financial need.

## Class of 1957 Scholarship Fund

The income from this fund, created by gifts from members of the Class of 1957 on the occasion of their 50th Reunion, is used to provide scholarship assistance to deserving students as determined by the Office of Financial Aid.

## Class of 1962 Scholarship Fund

The income from this fund, created by gifts from class members, is used to provide scholarship aid to promising and eligible students enrolled at Allegheny College.

## Class of 1963 Scholarship Fund

The income from this fund, created by gifts from class members, is used to provide scholarship aid to promising and eligible students enrolled at Allegheny College.

## Class of 1965 Scholarship Fund

The income from this fund, created by gifts from class members, is used to provide scholarship aid to promising and eligible students enrolled at Allegheny College.

## Class of 1966 Scholarship Fund

The income from this fund, created by gifts from class members, is used to provide scholarship aid to promising and eligible students enrolled at Allegheny College.

## Class of 1967 Scholarship

The income from this fund, created by gifts from class members, is used to provide scholarship aid to promising and eligible students enrolled at Allegheny College.

## Class of 1968 Scholarship

The income from this fund, created by gifts from class members, is used to provide scholarship aid to promising and eligible students enrolled at Allegheny College.

## Class of 1978 Scholarship Fund

The income from this fund, created by gifts from class members, is used to provide scholarship aid to promising and eligible students enrolled at Allegheny College.

## The Class of 1999 Scholarship Fund

An endowed scholarship fund established by the Class of 1999 as their Senior Class Gift, this scholarship is a thank you to all of the donors who made it financially possible for them to attend Allegheny College. A renewable scholarship, it is awarded to a student demonstrating financial need and leadership.

## Arthur B. Cobb, Jr. '36 and Dorothy Thompson Cobb Hittl '37

 ScholarshipThe income from this fund, established through a bequest of Dorothy Thompson Cobb Hittl, Class of 1937, is used to provide scholarship assistance to eligible students.

## Eliza J. Kettyle Cochrane Scholarship Fund

The income from this fund, established through a bequest of Anna E. Carter, Class of 1927, in memory of her mother, is used to assist students who need financial help to enter or stay in college.

## Albert and Ambrosina Colecchia Memorial Scholarship

The income from this fund, established by Albert and Ambrosina Colecchia's children, Arnold R. Colecchia, Maria Colecchia Massucci, and Francesca Colecchia, is used to provide scholarship assistance to a rising senior with a grade point average of 3.5 or higher and with sustained involvement in campus and community activities.

## Lillie M. Colley Fund

The gift of Arthur B. R. Colley, D.D., who served ably as an Allegheny Trustee for many years, in honor of his dear wife, Lillie M. Colley. The gift recognizes her love, loyalty, and devotion, which made possible her husband's graduation from Muskingum Academy, Allegheny College, and Garrett Theological Seminary. The income is used to help worthy students; preference is given to those seeking to enter the ministry of the United Methodist Church.

## May M. Nesbit Craig Fund

The income from this fund, established by John Scott Craig in memory of his wife, May M. Nesbit Craig, is used to provide scholarship assistance to eligible students.

## Sam Nesbit Craig Fund

The income from this fund, established by Mr. and Mrs. John S. Craig in memory of their son, Sam Nesbit Craig, is used to provide scholarship assistance to eligible male students.

## Ellen and William Cramer Scholarship

The income from this fund, established by Ellen R. Cramer in memory of her husband, William J. Cramer, Class of 1944 and a Trustee of the College, is used to provide scholarship assistance to eligible students. William E. Cramer added to the fund in memory of both his parents so that more students might benefit from it.

## Arthur M. Crawford Scholarship Fund

The income from this fund, established by Arthur M. Crawford, Class of 1934, is used to provide financial assistance to eligible students, with preference given to students planning to go into the ministry or pursue religious work. Additional preference is given to students from the Meadville, Pennsylvania area.

## Currier Scholarship Fund

The income from this fund, established by Dr. Carol B. Currier, Class of 1948, is used to provide financial assistance for deserving Allegheny students who come from single parent homes and have documented financial need. This scholarship may be awarded in addition to other forms of assistance.

## Cyclops Student Aid Fund

The income from this fund, established by the Cyclops Corporation, is used to provide scholarship support to deserving students.

## Bennett Davis Memorial Scholarship Fund

The income from this fund, established by Mirrel and Rebecca Davis in honor of their brother, Bennett Davis, is used to provide scholarship assistance to an eligible student demonstrating financial need.

## Ellen Howells Davis Memorial Fund

The income from this fund, created by Helen Curtis Davis in memory of her mother, is used to assist students from families with modest incomes.

## Mirrel Davis Memorial Scholarship Fund

The income from this fund, established by Rebecca Davis in honor of her sister, Mirrel Davis, is used to provide scholarship assistance to eligible students who are defraying part of their college expenses by part time employment.

## Priscilla and Rachel Davis Memorial Scholarship Fund

The income from this fund, established by Mirrel and Rebecca Davis in honor of their sisters, Priscilla and Rachel Davis, is used to provide scholarship assistance to eligible students.

## Rebecca Davis Scholarship

The income from this fund is used to provide scholarship assistance to eligible students with superior records of achievement.

## John and Alice Frederick DeHaven Scholarship Fund

The income from this fund, established by Jessamine Lewis, Class of 1910, in honor of her parents, is used to provide scholarship assistance to eligible students.

## Ruth E. DeLand Scholarship Fund

The income from this fund, established through a bequest of Ruth E. DeLand, Class of 1917, is used to provide financial assistance to a deserving student.

## William C. Deming Fund

The income from this fund, established by Dr. William C. Deming, Class of 1890 , is used to provide scholarship assistance to eligible students.

## Frank R. Denton Scholarship Fund

The income from this fund, established by the Frank R. Denton Foundation, is used to provide scholarship assistance to eligible students.

## Edward Harrison Dilley Scholarship Fund

This annual award of $\$ 1,000$ provides assistance to worthy male students from Crawford, Venango, and Warren Counties in Pennsylvania, who are pursuing work in mathematics, chemistry or physics and who are assisting themselves by holding part time employment.

## Doane Scholarship Fund

The income from this fund, established by Foster B. Doane, Class of 1917, is used to provide scholarship assistance to students showing promise in qualities of originality and constructive thinking.

## Laura J. and Melvin A. Dotterrer Scholarship Fund

The income from this fund, established by Laura J. and Melvin A. Dotterrer, Class of 1915, is used to provide scholarship assistance to eligible students.

## Donald G. Dunbar Memorial Scholarship

The income from this fund is used to provide financial assistance to a working or eligible student who shows scholastic promise. The award may be used at the recipient's discretion to defray his or her educational expenses.

## Dunham Scholarship

The income from this fund, established by John Dunham, Class of 1959, and Nancy Dunham, Class of 1964, is used to provide assistance and recognition to eligible students. Preference will be given to students from Wellsboro Area High School, then Tioga County, then Potter County and then McKean County in Pennsylvania to encourage students from these counties to attend Allegheny College; when possible the scholarship recipient should be an incoming freshman. This scholarship may be renewed annually.

## Durr Family Scholarship

The income from this fund, established by Mr. and Mrs. Richard E. Durr, parents of David R. Durr, Class of 1981, and Debra Durr Ladley, Class of 1985, is used to provide scholarship assistance to students who might not otherwise be able to attend Allegheny. Preference is given to students from the greater Pittsburgh, Pennsylvania, area who wish to stay in the Pittsburgh area in a business career.

## Eberly Foundation Scholarship Fund

The income from this fund, established by the Eberly Family Charitable Trust, is used to assist eligible students with superior academic achievement and good moral character, who are from Fayette County, Pennsylvania.

## Eden Hall Farm Student Aid Fund

The income from this fund, established by a grant from the Eden Hall Farm, is used to ensure that eligible students of limited financial means continue to benefit from the educational experience that Allegheny offers.

## Allen B. Edwards Scholarship Fund

The income from this fund, established in 1986 by College Trustee Donna M. Guenther, M.D., Class of 1960, and former Treasurer Dr. Allen B. Edwards, is awarded to eligible students from the Crawford County, Pennsylvania, area who would be unable to attend Allegheny as resident students without such assistance.

## Elizabeth, PA Scholarship Fund

The income from this fund, established by an anonymous donor, is used to provide assistance to students of Allegheny College who are residents of Elizabeth Township in Pennsylvania, or the surrounding area.

## Mary Ely Memorial Fund

The income from this fund, established by Mary B. Ely, is used to provide scholarship assistance to students preparing for the ministry.

## Robert M. Evans Scholarship Fund

The income from this fund, established by Robert M. Evans, Class of 1929 and a former Trustee of the College, is used to provide scholarship assistance to eligible students.

## Charles E. Everett Scholarship Fund

The income from this fund, established through a bequest of Vaneita W. Everett in memory of her husband, Charles E. Everett, Class of 1881, is used to provide scholarship assistance to eligible students.

## Ray E. and Virginia L. Falkinburg Student Aid Fund

The income from this fund, created through a bequest of Mr. and Mrs. Falkinburg, is used to assist students with financial need. Mr. Falkinburg was a member of the Class of 1919 at Allegheny.

## William E. Feisley Scholarship Fund

The income from this fund, established through a bequest of William E. Feisley, Class of 1948, is used to provide financial assistance to eligible students.

First National Bank of Pennsylvania Mary J. Heimberger

## Scholarship Fund

The income from this fund is used to provide scholarship assistance to students residing in Erie, Crawford, and Venango Counties in Pennsylvania, who have demonstrated unusual academic ability along with other special talents or leadership qualities.

## D. Willard Flint Scholarship Fund

The income from this fund, established through a bequest of Dr. D. Willard Flint, is used to provide scholarship assistance to eligible students.

## William S. Foultz Premedical Scholarship Fund

The income from this fund, established through a bequest of William Stanford Foultz, Class of 1945, is used to provide scholarship assistance to eligible pre medical students.

## Richard and Irene Fulton Scholarship

The income from this fund, established by Richard and Irene Fulton, provides financial aid for deserving students who have proven financial need and who have a minimum 3.0 grade point average.

## William H. Gallop Memorial Fund

The income from this fund, established by William H. Gallop, Class of 1885, is used to provide scholarship assistance to eligible students.

## Robert M. Garbark '32 Memorial Fund

The income from this fund, established by friends and family of Robert M. Garbark, Class of 1932, is used to provide recognition and scholarship assistance to outstanding, eligible students enrolled or planning to enroll at Allegheny College to meet necessary college expenses.

## Gasteiger Family Scholarship

The income from this fund, established by Irene Gasteiger Moltzau, Class of 1931, is used to provide scholarship grants for eligible pre medical students who are American citizens with preference given (but not limited) to students from the western United States or a Pacific rim nation.

## James George Memorial Scholarship

The income from this fund, established by Mr. and Mrs. R. M. George in memory of James George, Class of 1875, is used to provide scholarship assistance to eligible students.

## Sarah and Roland George Scholarship Fund

The income from this fund, established by Sarah Wilson George in memory of her husband, Roland J. George, Class of 1911, is awarded annually to students who best exemplify the interests of Sarah and Roland George. Preference is given to students with high academic credentials who show independent judgement and initiative and to those who express an interest in domestic and international business affairs and investments.

## Carolyn Estep Graffam Scholarship

The income from this fund is used to provide scholarship assistance to an eligible Allegheny senior who intends a career in elementary or secondary education. The fund was established in 1982 as a birthday gift to Carolyn Graffam, Class of 1954, by her husband, Stephen, Class of 1953, in recognition of her outstanding academic and extracurricular record while a student at Allegheny.

## Mortimer E. Graham Scholarship Fund

The income from this fund, established by Grace Graham and other friends in memory of her husband, Mortimer E. Graham, Class of 1922, is used to provide scholarship assistance to eligible students. Preference is given to students majoring in English or communication arts and, when possible, from the Erie, Pennsylvania area.

## Mary Lou Griffiths, Class of 1948, Mathematics Scholarship

The income from this fund, established by Samuel M. Haszelbart, Class of 1950, and Patricia Griffiths Haszelbart, Class of 1951, in memory of Patricia's sister, Mary Lou, is used to provide scholarship assistance to eligible students majoring in mathematics.

## Philip B. Hamilton Family Scholarship Fund

The income from this fund, established by Philip B. Hamilton, in honor of his daughters, Ruth A. Hamilton, Class of 1971, and Jane Hamilton Devitt, is used to provide scholarship assistance to eligible students.

## Ruth A. Hamilton Memorial Scholarship Fund

The income from this fund, established by the parents and friends of Ruth A. Hamilton, Class of 1971, is used to provide a scholarship to a worthy student who is majoring in art.

## Alice A. Hand '41 Scholarship Fund

An annual gift from a trust created by George V . Alloways in memory of his niece, Alice A. Hand, Class of 1941, is used to assist female students with demonstrated financial need.

## Blair Hanson Scholarship Fund

The income from this fund, established through the generosity of colleagues, former students, and friends of Professor Blair Hanson in recognition of her many years of dedicated teaching at Allegheny, is awarded annually to an outstanding foreign language student to help defray the expenses of a period of study abroad. The recipient is selected by the Department of Modern Languages; candidates for the award need not be language majors.

## Daphne Harper Fund

The income from this fund, established through a bequest of Daphne Harper, Class of 1916, is used to assist worthy students in need of financial aid.

## Paul Hyland Harris Memorial Fund

This fund provides a limited number of scholarships for worthy young men and women from Crawford, Warren, or Venango Counties in Pennsylvania, who wish to attend either Allegheny College or Harvard University. Application to the Office of Financial Aid should be made prior to March 1.

## Frank Haskell Memorial Scholarship Fund

The income from this fund, established by R. M. Haskell, in memory of his father, Frank Haskell, who completed his studies at the Allegheny Preparatory School in 1885, is used to provide scholarship assistance to eligible students of high potential but with limited means of financing their college education.

## Vincent and Marguerite Hays Scholarship Fund

The income from this fund, established through a bequest of Marguerite C. Hays, Class of 1920 , is used to provide financial assistance to a deserving student.

## William Randolph Hearst Endowed Scholarship Fund

The income from this fund, established by The Hearst Foundation, is used in support of minority and first generation college students who intend to reside in the United States after completing their studies.

## Harry Heasley Scholarship Fund

An annual gift from a trust, established through a bequest of Harry Heasley, is used to provide scholarships, preferably to students from the Borough of Emlenton, Pennsylvania, or from places within a radius of ten miles from the center of that Borough.

## Dorothy and William Heilbrun Scholarship

The income from this fund, established in memory of Dorothy
(Alexander) Heilbrun and William Heilbrun, both of the Class of 1939, is used to provide scholarship assistance to eligible students.

## H. J. Heinz Company Foundation Leadership Fund

The income from this fund is used to provide scholarship assistance to outstanding students based on need and merit.

## Corinne Ewing Henderson, Class of 1952, Scholarship Fund

The income from this fund, established by William W. Henderson in loving memory of his wife, Corinne, Class of 1952, is used to provide scholarship assistance to eligible students with an interest in a career in education.

## John J. Henderson Trust

The income from this fund, established through a bequest of Edward H. Henderson, Class of 1863, and by Grace Van H. Henderson, Class of

1892, in memory of John J. Henderson, Class of 1862, a distinguished Judge of the Superior Court and an Allegheny Trustee from 1874 to 1928, is used to provide scholarship assistance to eligible students.

## I. Miller Henley '23 Scholarship Fund

The income from this fund, established through a bequest of I. Miller Henley, Class of 1923, is used to provide scholarship assistance to qualifying students.

## Melita "Pi" Herrmann, Class of 1952, Endowed Scholarship

The income from this fund, established by Carl W. Herrmann III, Class of 1952, in memory of his wife, Melita 'Pi' Jacobs Herrmann, Class of 1952, is used to provide scholarship assistance to financially deserving students.

## Moses Hill Memorial Fund

The income from this fund, established by Moses Hill, is used to provide scholarship assistance to eligible students preparing for the ministry.

## Paul E. Hill and Mildred L. Hill Memorial Fund

A trust established by Paul E. Hill, Class of 1917, and Mildred L. Hill. A portion of the income from this fund is used in support of the Annual Fund.

## Robert L. Hite Memorial Scholarship Fund

The income from this fund, established in memory of Robert L. Hite, Chairman of the Board and founder of The Hite Company, through the generosity of the company's Board of Directors and his son, R. Lee Hite, is used to provide scholarship assistance to eligible students enrolled in economics, engineering, business, or a related field of study, with preference given to students from specified counties in Pennsylvania and New York.

## Priscilla B. and David H. Hoag Scholarship for the Humanities and Social Sciences

The income from this fund, established in 1998 by Priscilla B. Hoag, Class of 1962, and David Hoag, Class of 1960, is used to provide recognition and scholarship assistance to eligible, outstanding students enrolled in or planning to enroll in the humanities or social sciences at Allegheny College.

## Anna Beacon Holbrook Scholarship Fund

The income from this fund, established by Anna Beacon Holbrook in memory of her father, James Beacon, and mother, Elizabeth Beacon, is awarded to a member of the senior class who plans to enter the Methodist ministry.

## Richard E. Holden, Class of 1935, Fund

The income from this fund, established by National City Bank, in honor of Richard E. Holden, Class of 1935, is used to provide scholarship assistance to eligible students majoring in economics. The income may also be used to provide funds for exceptional undergraduate projects in the field of economics.

## Joseph and Durbin Horne Memorial Fund

The income from this fund, established by Joseph Horne, is used to provide scholarship assistance to eligible students whose residence for two years prior to their entrance to Allegheny has been Pittsburgh, Pennsylvania.

## Hosmer Family Scholarship

The income from this fund, established through a bequest of Jack G. and Betty L. Hosmer, is used to provide scholarship assistance to eligible students.

## Huidekoper Harvard Scholarship Fund

The income from this fund, established through a bequest of Edgar Huidekoper, is used to provide scholarship assistance to students who wish to continue their studies at Harvard University.

## John W. Hulburt Scholarship Fund

The income from this fund, established by students and friends in recognition of his 33 years of inspirational leadership at Allegheny, is used to provide scholarship assistance to eligible students.

## Sally Pettit Humphreys Scholarship

The income from this fund, established in 1983 by Mary Sceiford, Class of 1954, in honor of her college roommate, travel companion and lifelong friend Sally Pettit Humphreys, Class of 1954, is used to provide assistance to students in Allegheny approved study abroad programs for a semester or a full year.

## Susan K. Hutchison '60 Endowed Scholarship Fund

The income from this fund, established by Susan K. Hutchison, Class of 1960, is used to provide financial assistance to a student who has a proven financial need, is majoring in Music and is a member of the Allegheny College Choir(s). If no such student qualifies, then a preference is given to a student who has a proven financial need and is a member of the Allegheny College Choir(s).

## International Scholarship Fund

The income from this fund, established by the Arthur Vining Davis Foundation, is used to provide scholarships for students from selected foreign countries who have demonstrated great academic promise, special talents, and leadership abilities.

## Dorothy Curry Isherwood '21 and James E. Isherwood '20

## Scholarship Fund

The income from this fund, established by friends and family of Dorothy Curry Isherwood, Class of 1921, and James E. Isherwood, Class of 1920, is used to provide scholarship assistance to eligible students.

Isabel Beck Johnson, Class of 1942, Scholarship Fund
The income from this fund, established by friends and family in memory of Isabel Beck Johnson, Class of 1942, is used to provide scholarship assistance to students who might not otherwise be able to attend Allegheny College.

## Mary Yates Johnston Memorial Fund

The income from this fund, established by a bequest of Mary Yates Johnston, is used to provide scholarship assistance to students preparing for the ministry.

## Alvin A. Jones, Sr., Class of 1927, Memorial Scholarship Fund

The income from this fund, established through a bequest of Miriam A. Jones, in memory of her husband, Alvin A. Jones, Sr., Class of 1927, is used to assist in the education of worthy students.

## Charles Henry Jull Scholarship Endowment Fund

The income from this fund, established by Mrs. Jull in memory of her husband, Charles Henry Jull, is used to provide scholarship assistance to eligible students.

## Armen Kalfayan Memorial Scholarship Fund

The income from this fund, established by Dr. Blair Hanson, is awarded annually to a superior student majoring in one of the modern foreign
languages. The student is chosen by the faculty in the Department of Modern and Classical Languages after consultation with the Financial Aid Office.

## Kappa Alpha Theta Scholarship Fund

The income from this fund, established through a bequest of Florence W. Abell, Class of 1945, is used to provide scholarship assistance to eligible students.

## Dorothea and Norwood W. Kerr Scholarship Fund

The income from this fund, established through a bequest of Dorothea Kerr, Class of 1921, is used to provide scholarship assistance to eligible students interested in art or music.

## Elizabeth F. King Scholarship Endowment Fund

The income from this fund, established through a bequest of Madeleine King Winslow, is used to provide scholarship assistance for Meadville area students or Allegheny students of the Roman Catholic faith.

## Kenna Quine Morton Kinsey, Class of 1966, Scholarship Fund

The income from this fund, established through bequests of Edna and Kenneth Quine, in honor of their daughter Kenna Quine Kinsey, Class of 1966, is used to provide scholarship assistance for deserving music majors.

## Marjorie "Doc" Kirk Fund

A portion of the income from this fund, established by friends and colleagues of Marjorie "Doc" Kirk, Professor Emerita of Physical Education, is used to underwrite one or two annual awards to a student or students determined by the Athletic Department to have made the most significant contribution that year to the intramural and recreation program of the College. The remaining income from the fund is used to provide scholarship assistance to eligible students in good academic standing.

## Robert L. Kirkpatrick '28 Scholarship Fund

The income from this fund, established in 1987 by the law partners and associates at Kirkpatrick \& Lockhart and other friends in memory of Robert L. Kirkpatrick, Class of 1928, Chairman of the Board of Trustees of Allegheny College from 1964 to 1968, is used to provide a scholarship, awarded annually to an eligible junior or senior who has achieved an outstanding academic record and who has demonstrated a strong commitment through service to the College.

## J. Arvid Klein '54 Scholarship Fund

The income from this fund, established by J. Arvid Klein '54, is used to provide scholarship assistance to eligible students with a declared major in art.

## John C. Klingener and Ruth Sundback Klingener Student Aid Fund

The income from this fund, established by Ruth Sundback Klingener, Class of 1933, and her family, is used to support eligible, talented students.

## Knorr Memorial Scholarship Fund

The income from this fund, established in memory of Thomas R. Knorr '32 and Emaruth Knorr '39 by their daughter Carolyn Knorr Stephens and her husband Bruce M. Stephens, both members of the Class of 1961, is used to provide scholarship aid for qualified students, with preference given to students from Crawford County, Pennsylvania who are preparing to become secondary school teachers or administrators. Both Mr. and Mrs. Knorr were career educators in the Crawford Central School District.

## Earl Knudsen Memorial Scholarship Fund

The income from this fund, established by the Earl Knudsen Charitable Foundation in memory of Earl Knudsen, is awarded to students from the Pittsburgh area; awards are based upon scholastic merit.

## Karen Bates Kress '67 Scholarship

The income from this fund, established by Karen Bates Kress, Class of 1967, is used to provide scholarship assistance to students who have been disadvantaged due to social, economic or gender issues.

## Peter and Ellen Weir Laffer Scholarship Fund

The income from this fund, established through a bequest of Nellie E. Hogg, is used to provide scholarship assistance to a worthy student.

## Frank C. and Alice M. Layng Scholarship Fund

The income from this fund, established by Frank C. Layng, Class of 1928, and Alice McClelland Layng, Class of 1933, is used to assist talented students, on the basis of need and merit, who could not otherwise attend Allegheny.

## Richard Edwin Lee Scholarship

The income from this fund, established by Dr. Gideon Sundback in honor of Professor Richard Edwin Lee, is used to provide scholarship assistance to an outstanding student majoring in chemistry. If, in the opinion of the Chemistry Department, there is no satisfactory candidate in any given year, no award for that year shall be made; but in some following year, two awards may be made if more than one suitable candidate is eligible.

## Richard Edwin Lee and Kathleen Carter Lee Memorial

## Scholarship

The income from this fund, established by former students and friends of Professor and Mrs. Lee, is awarded annually to able and qualified students with preference given to individuals concentrating their study in the natural science disciplines.

## Jessamine DeHaven Lewis Scholarship Fund

The income from this fund, established through a bequest of Charles F. Lewis, Class of 1909 , is used for grants to worthy and needy students.

## C. Clark Leydic, Jr., Class of 1937, Memorial Scholarship Fund

The income from this fund, established by Grace O. Leydic in memory of her husband, C. Clark Leydic, Jr., is used to provide scholarship assistance to eligible students.

## Elsa Held Linaberger Memorial Scholarship

The income from this fund, established by James Linaberger, Class of 1959, in memory of his wife, Elsa Held Linaberger, Class of 1960, is used to provide scholarships to eligible upperclass students who participate in the Allegheny College Choir.

## William H. and Mildred E. Locke Scholarship Fund

The income from this fund, established by Mrs. Mildred Tillotson Locke, Class of 1920, in memory of her husband, is used to assist talented students who would be unable to attend Allegheny without some financial assistance.

## Harry C. Loomis Scholarship

The income from this fund, established through a bequest by Harry C. Loomis, is used to provide financial assistance to eligible students, with preference given to students with a handicap or disability.

## Barbara Lotze Physics Scholarship Fund

The income from this fund, established by Dr. Barbara Lotze, Professor Emerita of Physics, is used to provide scholarship assistance to students who are majoring in physics with a preference for students who plan a career teaching physics in high school.

## Ida E. Lown Fund

The income from this fund, established by Mrs. Lown, is used to provide scholarship assistance to eligible students.

## Morten J. Luvaas Scholarship Fund

The income from this fund, established by former members of the Allegheny Singers in recognition of the many years of leadership provided by Choir Director Morten J. Luvaas, is awarded to a promising student who has contributed to choral music at Allegheny. The recipient is expected to be enrolled during the following academic year.

## Newton B. Madden, Class of 1896, Scholarship Fund

The income from this fund, established in memory of Newton B. Madden, Class of 1896, by his son, John C. Madden, is used to provide scholarship assistance to eligible students.

## Frank Wilbur Main Scholarship Fund

The income from this fund, established by the associates of Frank Wilbur Main in his honor, is used to provide assistance to eligible men and women who propose to follow the profession of accounting or closely related fields.

## Robert A. Marchman, Esq. '80 and Fay Chin Marchman Scholarship

The Robert A. Marchman, Esq., Class of 1980, and Fay Chin Marchman Scholarship is awarded annually to a student who has been economically or socially disadvantaged whose cumulative grade point average is 3.0 or better. If more than one student meets the grade point criterion, preference will be given to those students who are involved in student organizations.

## Anne Lauers Matthews Scholarship Fund

The income from this fund, established through a bequest of George B. Matthews in memory of his wife, Anne Lauers, is used to provide scholarship assistance to eligible students.

## Paraskevi (Evi) Mavrogeorgis, Class of 1997, Memorial Fund

The income from this fund, established in memory of Evi Mavrogeorgis, Class of 1997, by her classmates and friends, is used to provide scholarship assistance for Allegheny students, with preference given to environmental science majors. The ideal candidate will, like Evi, be actively involved with environmental issues, be people oriented and exhibit leadership qualities. The scholarship is awarded by the Financial Aid Office in consultation with the Environmental Science Department.

## McCandless Family Scholarship

The income from this fund, established by Mr. and Mrs. John McCandless, is used to support and recognize eligible students.

## Frank T. McClure Scholarship Fund

The income from this fund, established by Frank T. McClure, Class of 1899, is used to provide scholarship assistance to eligible students.

## Mellon Bank Student Aid Fund

The income from this fund is used to provide scholarship assistance to eligible students.

## William H. Michener Scholarship Fund

The income from this fund, established by former Professor William H. Michener, is used to provide scholarship assistance to eligible students.

## Joseph W. Miles Scholarship Fund

The income from this fund, established through a bequest of Margaret Rudnay, Class of 1928, is used to provide scholarship assistance to eligible students.

## Miller Scholarship Fund

The income from this fund, established by Ben F. Miller, Jr., Class of 1907, and Ethel Moore Miller, is used to provide scholarship assistance to eligible students.

## Charles D. Miller Scholarship

The income from this fund is awarded annually to an eligible student demonstrating financial need.

## Dannie O. Miller, Class of 1984, Memorial Fund

The income from this fund, established by the friends and classmates of Dannie O. Miller, Class of 1984, is used to provide scholarship assistance for eligible minority students.

## Miller Family Scholarship Fund

The income from this fund, established through a bequest of Lewis Miller, Class of 1941, is used to provide scholarship assistance for deserving students in need of financial assistance who bear the surname "Miller." In years in which there are no qualified students with the surname Miller, the scholarship may be awarded to other deserving students in need of financial assistance.

## Frank P. Miller Scholarship

The income from this fund, established by family, friends, and alumni in memory of Frank P. Miller, Class of 1907, is used each year for a scholarship awarded by the President to the man or woman, preferably from Meadville or Crawford County, Pennsylvania, who shows promise in scholarship, leadership, and character, and whose finances are such that he or she would not be able to afford the cost of an Allegheny education without assistance. It is renewable for one year on the basis of all around performance in college.

## Mary E. Miller Foreign Missionary Fund

The income from this fund, established by Mary E. Miller, is used to provide financial assistance to students preparing for foreign mission work under the United Methodist Church.

## Robert T. Miller Scholarship Fund

An annual gift from the trust established through a bequest of John A.W. Miller, in memory of his father, the Reverend Robert T. Miller, this fund provides scholarships annually for deserving and needy students, subject to certain qualifications specified in the will.

## James R. Mills Scholarship

The income from this fund, established by Mrs. Benjamin Sharpsteen, is used to provide scholarship assistance to eligible students.

## Flora J. Mitchell Fund

The income from this fund, established by Flora J. Mitchell, is used to provide scholarship assistance to eligible students.

## John H. Moore, Class of 1911, and Beatrice Moore Wise, Class

 of 1915, Scholarship FundThe income from this fund, established through a bequest of Beatrice Moore Wise, is used to provide scholarship assistance to eligible students.

## Morgan/Kettring Scholarship Fund

The income from this fund, established in honor of R. Christy Morgan and Donald D. Kettring, is used to provide scholarship assistance for students who have demonstrated financial need and are in good academic standing. Preference is given to female students who have a demonstrated record of leadership and/or community service.

## Thelma Karlen Moss, Class of 1930, Scholarship Fund

The income from this fund, established in memory of Thelma Karlen Moss, Class of 1930, by her husband, T. Willmont Moss, Class of 1930, is used to provide scholarship assistance to promising and eligible students who are seniors planning graduate work in library science, upperclass students majoring in Romance languages, or students who are residents of McKean County, Pennsylvania.

## Mu Chapter of Kappa Alpha Theta Scholarship Fund

The income from this fund, established by the Mu Cottage Club of Kappa Alpha Theta, Inc., is used to provide scholarship assistance to eligible students, with preference, when possible and feasible, to members of Kappa Alpha Theta.

## Maude Kepler Mueller Scholarship Fund

The income from this fund, established by Scott Mueller and Edwin H. deConingh, in honor of Maude Kepler Mueller, Class of 1892, is used to provide scholarship assistance to eligible students who have demonstrated talent in the field of music.

## Henry M. and F. Grace Muller Endowment Fund

The income from this fund, eatablished through a bequest, is used to provide scholarships for worthy students with demonstrated need.
Preference is given to students preparing for a career in the medical field.

## M. Lucille Muntz, Class of 1943, Scholarship

The income from this fund, established through a bequest of M. Lucille Muntz, Class of 1943, is used to provide financial assistance to eligible students.

## Frank E. Murphy, Jr., Scholarship Fund

The income from this fund, established by Mrs. Frank E. Murphy, Sr. in memory of her son, is used to provide scholarship assistance for a worthy senior man.

## John F. Murray Fund

The income from this fund, established by Dr. John F. Murray, is used to provide scholarship assistance to sons and daughters of ministers of the Western Pennsylvania Conference of the United Methodist Church and students within the bounds of the Conference studying for the Methodist ministry. Recipients are recommended by the Western Pennsylvania Conference Board of Ministerial Training.

## Robert B. Murray Scholarship Fund

The income from this fund, established by Weltha Murray in memory of her husband, Robert B. Murray, Class of 1866, is used to provide scholarship assistance to eligible students.

## Kitty Crawford Mustio Scholarship

The income from this fund, established by Thomas E. Mustio, Class of 1953, in memory of his wife, Kitty Crawford Mustio, Class of 1952, is used to provide scholarship assistance to a student whose life purpose is to engage in religious work.

## Eugene Arter Myers Memorial Scholarship Fund

The income from this fund is used to provide scholarship assistance to eligible active members of Theta Chi fraternity. The recipient is to be selected by the fraternity's financial officers and approved by the President of the College.

## National United Methodist Scholarships

Four $\$ 500$ scholarships are awarded each year by the Board of Education of the United Methodist Church to United Methodist students of superior scholastic ability, Christian character, and promise of distinctive service. Applications and information can be secured from the Office of Financial Aid.

## Christine Scott Nelson Study Abroad Scholarship Fund

The income from this fund, established by Christine Scott Nelson, Class of 1973, is used to provide scholarship assistance to students in Allegheny approved study abroad programs.

## Walter Scott Nettrour IV, M.D. Class of 1987, Memorial

## Scholarhip Fund

The income from this fund, established by family, friends and classmates in memory of Walter Scott Nettrour IV, Class of 1987, is used to provide scholarship assistance to eligible students from North Allegheny High School or the greater Pittsburgh, Pennsylvania, area.

## Effie M. Noyes Memorial Fund

The income from this fund, established by Effie M. Noyes, is used for students preparing for the ministry in foreign fields.

## Adam Clark Nutt Memorial Fund

The income from this fund, established by Joseph R. Nutt in memory of his father, Adam Clark Nutt, Class of 1861, is used to provide scholarship assistance to eligible students.

## O'Connor Scholarship Fund

The income from this fund, established by Sue O'Connor Idleman, Class of 1955, is used to provide scholarship assistance to eligible upperclass students.

## Odd Fellows Home of Western Pennsylvania Scholarship Fund

The income from this fund, established by the Odd Fellows and Rebekahs of Northwest Pennsylvania, is used to provide scholarship assistance to eligible students from the thirteen northwestern Pennsylvania counties. Preference is given to students of a widowed parent or who are orphans.

## Frederick B. Odell Scholarship Fund

The income from this fund, established through a bequest of Frederick B. Odell, is used to provide scholarship assistance to eligible students.

## Edith Mead Osborne Scholarship Fund

The income from this fund, established in memory of Edith Mead Osborne, provides an annual scholarship for an individual who shows marked musical ability, talent or direction in voice, piano, or organ. The recipient is selected in consultation with the Music Department.

## Sophia Papenhagen Scholarship Fund

The income from this fund is used to provide scholarship assistance to an eligible female Christian student.

## Parsons Fund

The income from this fund, established through a bequest of Ella A. Parsons, as a memorial to Dr. Moses N. Crow, Class of 1840, uncle of Ella Parsons; John E. Parsons, her husband; and Seneca Freeman, her father, is used to provide scholarships for graduates of the Cameron County High School or, in case none is eligible from there, to applicants from Cameron County or elsewhere in Pennsylvania.

## Gordon Patterson, Class of 1919, Fund

The income from this fund, established by Dr. Gordon D. Patterson, Jr., Class of 1945, in memory of his father, Dr. Gordon D. Patterson, Sr., Class of 1919, is used to assist a person (or persons) to attend Allegheny who could not otherwise go to college. Preference will be given to students from northwestern Pennsylvania.

## Gordon Derby Patterson Memorial Fund

The income from this fund, established through a bequest of Dr. Gordon D. Patterson, Jr., Class of 1945, is used to provide scholarship assistance to students majoring in the sciences.

## Lena Derby Patterson and Gordon Derby Patterson Scholarship Fund

The income from this fund, established by Dr. Gordon D. Patterson, Jr., Class of 1945, in memory of his grandparent Lena Derby Patterson, and father, Gordon Derby Patterson, Class of 1919, in order to encourage students in the sciences, is used to provide scholarship assistance for eligible students majoring in sciences, such as chemistry, physics, or biology.

## Lena Derby Patterson Memorial Fund

The income from this fund, established through a bequest of Dr.
Gordon D. Patterson, Sr., Class of 1919, is used to assist a person (or persons) to attend Allegheny who could not otherwise go to college. Preference is given to a member of a Meadville, Pennsylvania area family.

## Pennbank Student Aid Fund

The income from this fund is used to provide scholarship support to eligible students.

## Phi Delta Theta Allegheny College Scholarship

Provided by the Phi Delta Theta Educational Foundation of Meadville, this award is given annually to four students who have demonstrated academic promise and who are in need of financial assistance.

## Dr. and Mrs. Arthur William Phillips Premedical Student

## Scholarship Fund

The income from this fund, established by the Dr. and Mrs. Arthur William Phillips Charitable Trust, is used to provide scholarship assistance to pre medical students, with preference given to residents of

Crawford, Clarion, Forest, Venango, Butler, Warren, and Mercer Counties in Pennsylvania.

## A. W. Phillips Charitable Trust Scholarship

The income from this fund, established by the Dr. and Mrs. Arthur William Phillips Charitable Trust, is matched by the College on a one to one basis and is used to provide scholarship assistance to eligible students from northwestern and western Pennsylvania, with preference given to residents of Crawford, Clarion, Forest, Venango, Butler, Warren, and Mercer Counties in Pennsylvania.

## Pittsburgh National Bank Student Aid Fund

The income from this fund, established by Pittsburgh National Bank, is used to provide scholarship assistance to eligible students.

## James Amberson Porter and Elizabeth Dorothy Porter Scholarship

The income from this fund is awarded annually to any male or female resident of Meadville, Pennsylvania, who is recognized as an outstanding student in the senior class of Meadville Area High School. The student is to be selected by popular vote of the students of the senior class of Meadville Area High School and approved by the College.

## Helen Fry Pounds, Class of 1924, Scholarship Fund

The income from this fund, established by a gift from Helen Fry Pounds, Class of 1924, is used to provide scholarship assistance to eligible students.

## Fay Seeley Powell Scholarship Fund

The income from this fund, established through a bequest of Fay Seeley Powell, is used to provide scholarship assistance to eligible students.

## Sean M. Ramaley Scholarship Fund

This fund is used to provide financial assistance to students who have at least a 3.0 grade point average, are recognized in the college community for leadership, and demonstrate honesty, integrity and ethics. Preference will be given to students who reside in the constituency represented by Rep. Sean M. Ramaley, Class of 1997, the scholarship's sponsor.

## Reader's Digest Foundation Scholarship Fund

The income from this fund, established by the Reader's Digest Foundation, is used to provide scholarship assistance to eligible students.

## David Holmes Reiley, Class of 1965, Scholarship Fund

The income from this fund, established in honor of David Holmes Reiley '65 by Betty Holmes Reiley, is used to provide scholarship assistance to eligible English majors, with preference given to students who come from Somerset County, Pennsylvania. Preference will also be given to students who are interested in journalism or the ministry.

## Henry B. Reiley, Jr. Memorial Scholarship

The income from this fund, established in memory of the Reverend Henry B. Reiley, Class of 1937, by his immediate family, is used to provide scholarship assistance to eligible students from Somerset County, with preference given to students with outstanding academic ability. If the College is unable to award this scholarship, the funds will be used to support student internships in the Somerset County area.

## Ronie and David Reiley Scholarship

The income from this fund, established by Ronie Reiley, Class of 1966, and David Reiley, Class of 1965, is used to provide scholarship
assistance to eligible students from Somerset County, with preference given to students with outstanding academic ability. If the College is unable to award this scholarship, the funds will be used to support student internships in the Somerset County area.

## Charles A. '74 and Martha A. Rini Scholarship

The income from this fund, established by Charles A. Rini, Class of 1974, and his wife, Martha A. Rini, is used to provide scholarship assistance to deserving students.

## John V. Ritts Student Aid Fund

The income from this fund, established by John V. Ritts, is used to provide scholarship assistance to eligible students from Butler County, Pennsylvania. If there are no eligible students from Butler County, the income may be used for students from Clarion County, Pennsylvania, or adjoining counties.

## Clarence Frisbee Ross Scholarship

Provided by the Phi Delta Theta Educational Foundation of Meadville, this award is given annually to a junior or senior man who has demonstrated academic promise and who is in need of funds to continue his education.

## Ruehle Scholarship in Economics

A scholarship awarded to an economics major with a grade point average of 3.0 or better, having taken Economics 300 and 310, who has senior class standing and demonstrates financial need. The recipient is selected by the economics faculty.

Nancy Warren Rylander, Class of 1949, Memorial Scholarship Fund
The income from this fund, established in memory of Nancy Warren Rylander, Class of 1949, by her husband, Gustave Rylander, Jr., Class of 1949, her family and many friends, is used to provide scholarship assistance to eligible students.

## Julia Schoenfeld Scheeline Fund

The income from this fund, established by Julia S. Scheeline, Class of 1897, is awarded to an eligible student on the nomination of the Altoona High School Alumni Association in Pennsylvania.

## John J. Scheiring Scholarship Fund

The income from this fund, established by Marie E. Scheiring in memory of John J. Scheiring, is used to provide scholarship assistance to eligible students.

## Albert E. and Bessie K. Seidel Scholarship Fund

The income from this fund, established by Bessie K. Seidel in memory of her husband, Albert E. Seidel, is used to provide scholarship assistance to eligible students who have demonstrated financial need.

## Nelle Sherred Seneff Memorial Scholarship Fund

The income from this fund, established through a bequest of Jeanette Seneff in memory of her mother, Nelle Sherred Seneff, Class of 1899, is used to provide scholarship assistance to worthy students majoring in mathematics.

## Sesnick Family Music Scholarship Fund

The income from this fund, established through a bequest of Joan M. Sesnick, Class of 1959, is used to provide scholarship assistance to eligible music students, with preference given to sophomore students or previous recipients of this scholarship who are studying music in the areas of voice, piano or organ.

## R. William Shaw, Class of 1926, and Charlotte T. Shaw

## Memorial Scholarship Fund

The income from this fund, established through a bequest, is used to provide scholarship assistance to eligible students. Preference is given to juniors and seniors concentrating in astronomy, physics, geology, or the humanistic interpretation of these disciplines.

## Sheridan Pulwer Student in Distress Fund

The income from this fund, established by Mitchell Pulwer '75 and Michol Sheridan '77, shall be used to provide emergency scholarship support for eligible students who have experienced a sudden change in family circumstances that has resulted in an increased need for financial assistance.

## Mary C. Silliman Fund

The income from this fund, established by Mary C. Silliman, is used to provide scholarship assistance to young men.

## George X. Simonetta Scholarship

The income from this fund, established through a bequest of George X. Simonetta, Class of 1948, is used to provide scholarship assistance to eligible students, not exceeding $\$ 500$ per student. Preference is given to students from the Meadville, Pennsylvania area.

Marie Charlton Skelly, Class of 1922, Memorial Scholarship Fund The income from this fund, established through a bequest of Marie Charlton Skelly, Class of 1922, is used to provide scholarship assistance to eligible third year female students.

## Larue F. Smith, Class of 1907, Educational Fund

The income from this fund, established through a bequest of Larue F. Smith, Class of 1907, is used to provide scholarship assistance to eligible students.

## William Schaffer Smith, Class of 1961, Memorial Scholarship

The income from this fund, established by Sandra Kenyon Smith Linaberger, Class of 1962, in memory of her husband William Schaffer Smith, Class of 1961, is used to provide recognition and scholarship assistance to eligible, outstanding students enrolled in the pre law program at Allegheny College to help them reach their goal of becoming an attorney.

## Thomas C. Smyth and Arline Smyth Quinn Memorial Scholarship Fund

The income from this fund established through a bequest of Arline Smyth Quinn, Class of 1927, is used to provide scholarship assistance to students of high academic merit.

## Mary McCrory Spaulding, Class of 1960, Scholarship Fund

The income from this fund, established through a bequest of Mary McCrory Spaulding, Class of 1960, is used to provide scholarship assistance to students from Crawford County with documented financial need.

## Spence Family Scholarship Fund

The income from this fund, established in memory of Cedric L. Spence, Class of 1938, by his wife, Suzanne Haudenshield Spence, Class of 1940, and daughters, Sandra Spence, Class of 1963, Suzanne S. Miller, Class of 1966, and Priscilla S. Kinney, Class of 1968, is used to provide scholarship assistance to promising and eligible students.

## Stackpole Hall Foundation Scholarship Fund

The income from this fund is used to provide scholarship assistance to eligible and worthy students from Elk County, Pennsylvania, to attend Allegheny.

## Edward R. Stauffer Scholarship Fund

The income from this fund, established in 1999 by Audrey Stauffer on behalf of her brother, is used to provide scholarship assistance to eligible upperclass students majoring in history and in good academic standing. Recipients are chosen by the Financial Aid Office in consultation with the Chair of the History Department.

## Frederick and Marion Steen Mathematics Scholarship

The income from this fund, established by the children of Frederick and Marion Steen, will partially cover senior year tuition expenses for one selected student per year who is a natural science major. Further, the student will have demonstrated a strong understanding of and skills in the application of the principles of mathematics; the ability to communicate and enthuse others with the beauty of mathematics; and a commitment to put mathematics to purpose in a teaching, engineering or scientific profession.

## Albertha Hood Stein Scholarship

The income from this fund, established through a bequest of Gladys M. Stein, is used to provide assistance for eligible and deserving students.

## Gladys Marie Stein Scholarship

The income from this fund, established through a bequest of Gladys M. Stein, is used to provide assistance to students with disabilities of all kinds. If not needed for such purposes, the income from the fund will be allocated equally among the Albertha Hood Stein, Henry Stein, and Ralph Henry Stein Scholarships.

## Henry Stein Scholarship

The income from this fund, established through a bequest of Gladys M. Stein, is used to provide assistance for eligible and deserving students.

## Ralph Henry Stein Scholarship

The income from this fund, established through a bequest of Gladys M. Stein, is used to provide assistance for eligible and deserving students.

## Homer E. Sterling Scholarship Fund

The income from this fund, established by Dorothy S. Sterling in memory of her husband, Homer E. Sterling, Class of 1923, is used to provide scholarship assistance to eligible students.

## Dr. John A. M. Stewart Scholarship Fund

The income from this fund, established through a bequest of Dr. Stewart, is used to provide scholarship assistance to promising, eligible students in the junior or senior class.

## Richard A. "Dick" Stewart '56 Scholarship Fund

The income from this fund, established by Lynn D. Kippenhan in honor of Dick Stewart's many years of service to Allegheny College as a mentor, counselor and friend to its students, is used to provide scholarship support for eligible students.

## Stoltzenback Scholarship Fund

The income from this fund is used to provide scholarship assistance to eligible students.

## Otto A. Stolz Scholarship Fund

The income from this fund, established through a bequest of Pauline S. Robinson in memory of her father, Otto A. Stolz, Class of 1884, is used to provide scholarship assistance to eligible students.

## Stover Family Scholarship Fund

The income from this fund, established by Hayes C. Stover and Patricia A. Stover, both members of the Class of 1962, is used to provide financial assistance to eligible students with demonstrated financial need, with preference given to students who are residents of Allegheny County, Pennsylvania, international students, or students of color.

## Leonell C. Strong Memorial Scholarship Fund

The income from this fund, established by Dr. Wilson W. Strong, Jr., Class of 1965, and Dr. Sherry G. Westerland Strong, Class of 1965, is used to provide scholarship assistance to a student or students of Allegheny majoring in biology or who intend to attend medical, dental, or veterinary school. Recipients are selected primarily upon the basis of academic merit.

## Student Memorial Scholarship Fund

An endowed fund for gifts in memory of students of Allegheny or alumni deceased within one year of graduation, the income from this fund is used to assist students with demonstrated financial need.

## Sandra Waite Stupiansky and Nick Stupiansky Scholarship Fund

The income from this fund, established by Mary Lou Waite, is used to provide scholarship assistance to eligible rising junior or senior students with a 3.0 grade point average or better having an ongoing record of community service and/or leadership working with children and families. The recipient of this award can be from any major.

## Surdna Foundation Student Aid Fund

The income from this fund, established by the Surdna Foundation, is used to provide scholarship support to eligible students.

## Florence Downing Sutton, Class of 1916, Memorial Scholarship Fund

The income from this fund, established in memory of Florence Downing Sutton by her friend Wayne Mayward, is used to provide scholarship aid to promising and eligible students who are majoring in the physical sciences.

## Nancy Lea Sutton Scholarship Fund

The income from this fund, established through a bequest of Nancy Lea Sutton, Class of 1944, is used to provide scholarship assistance each year for an eligible and worthy student who has completed the first year of study at Allegheny and who has participated with distinction in one of the College's authorized student extracurricular activities.

## David Scowden Swaney Memorial Scholarship Fund

The income from this fund, established by William S. Swaney in memory of his father, who was a member of the Class of 1897, is used to provide scholarship assistance to eligible students.

## Kenneth Swanson Scholarship Fund

The income from this fund, established through a bequest of Kenneth A. Swanson, Class of 1948 , is used to provide scholarship assistance to eligible students.

## Swartley Scholarship Fund

The income from this fund, established through a bequest of Stanley Simpson Swartley, is used to provide scholarship assistance to eligible male students.

## L. Lloyd Swisher Scholarship Fund

The income from this fund, established by Dr. L. Lloyd Swisher, is used to provide scholarship assistance to eligible students.

## William F. Tamplin '35 and Mary A. Miller Tamplin '35 Endowed

 Study Abroad FundThe income from this fund, established by William F. Tamplin and Mary Agnes Miller Tamplin, both of the Class of 1935, is awarded to a rising junior or senior student involved in campus and/or community activities with a grade point average of 3.0 or above to help defray the expenses of studying abroad.

## Laura Temple Scholarship Fund

The income from this fund, established by Laura Temple, is used to provide scholarship assistance to eligible students.

## Isabella Thoburn Fund

The income from this fund, established through a bequest of Isabella Thoburn, Class of 1914, is used to provide scholarship assistance to eligible students.

## Winfield S. Thomas Fund

The income from this fund, established by Winfield S. Thomas, is used to provide scholarship assistance to students preparing for Christian service.

## Arthur Webster Thompson Fund

The income from this fund, established by Judith L. Thompson in memory of her husband, Arthur Webster Thompson, is used to provide scholarship assistance to eligible students from Titusville, Pennsylvania.

## Marian Stanger Tidd, Class of 1947, Scholarship Fund

This fund, established by Charles E. Tidd in memory of his late wife Marian Stanger Tidd, Class of 1947, is used to provide scholarship assistance to students who have demonstrated financial need.

## Patricia Bush Tippie Scholarship Fund

The income from this fund, established by Mrs. Henry B. Tippie, Class of 1956 , is used to provide scholarship assistance to graduating seniors from New Castle High School in Pennsylvania. Recipients of these four year scholarships are selected by a committee consisting of New Castle's superintendent, high school principal, and President of the Board of Education, in conjunction with the College's Office of Financial Aid. Selection is based on financial need, desire for higher education, and grade point average. Preference is given to students planning to pursue business as a career.

## Carolyn Horner Tippins Scholarship Fund

The income from this fund, established by the Tippins Foundation, is used to provide scholarship assistance to eligible students with demonstrated financial need.

## Titusville Scholarship Fund

The income from this fund, established by residents of Titusville, Pennsylvania, is used to provide scholarship assistance to eligible students from Titusville, Pennsylvania.

## Jennifer M. Tsangaris, Class of 1993, Memorial Scholarship

Fund
The income from this fund, established in memory of Jennifer Marie Tsangaris, Class of 1993, is awarded annually, in consultation with the appropriate departments, to eligible students majoring in psychology, biology, or neuroscience. Preference will be given to students who are graduates of Elizabeth Forward High School, in Pennsylvania, or members of Allegheny's Alpha Chi Omega sorority. The fund is made possible by Jennifer's friends and family and by her sisters of Alpha Chi Omega sorority.

## U.S. Steel Student Aid Fund

The income from this fund, established by a grant from the United States Steel Foundation, is used so that qualified students continue to benefit from the educational experience that Allegheny offers.

## Numa F. Vidal III Memorial Scholarship

The income from this fund, established by friends, relatives, and Delta Tau Delta fraternity in memory of Numa F. Vidal III, Class of 1952, is used to provide scholarship assistance to a promising man or woman from Lawrence or Mercer Counties in Pennsylvania or Mahoning County in Ohio with demonstrated financial need.

## Florence Smyth Thompson Memorial Fund

The income from this fund, established through a bequest of Florence Smyth Thompson, Class of 1929, is used for the general purposes of the College.

## Henry J. Voegtly Scholarship Fund

The income from this fund is used for projects encouraging Christian living, including scholarship assistance for the children of Protestant ministers and for pre seminary students.

## Corinne M. Wahr Scholarship Fund

The income from this fund, established by Corinne M. Wahr, is used to provide scholarship assistance to eligible students.

## Malcolm Worden Waite Scholarship Fund

The income from this fund, established by Betty Mix Waite, Class of 1946, in memory of her husband, Malcolm Worden Waite, is used to provide scholarship assistance to outstanding students with demonstrated financial need. First preference is given to students enrolled in the 32 engineering program; second preference is given to students majoring in English.

## Mary Loretta Walsh Memorial Scholarship

Established in 1985 by Professor Edward Walsh of the Chemistry Department in honor of his mother, this scholarship is awarded annually to a previous recipient of the ACA Scholarship through application available from the ACA Scholarship Committee Chairperson. The scholarship entitles the recipient to tuition costs for three courses per academic year, plus a stipend.

## Louis A. Wells Scholarship Fund

The income from this fund, established by Allegheny alumni from the Cleveland area in memory of Louis A. Wells, Class of 1914, is used to provide scholarship assistance to eligible students from the Cleveland area.

Western Pennsylvania Conference Scholarship Fund
Provided by the Western Pennsylvania Conference of the United

Methodist Church, this scholarship is awarded annually to students from the Western Pennsylvania Conference of the United Methodist Church who are preparing for the Methodist ministry.

## R. Elaine Fleming Whan, Class of 1952, Scholarship Fund

The income from this fund, established by Glenn A. Whan in memory of his wife, Ruth Elaine Fleming Whan, Class of 1952, is used to provide scholarship assistance to eligible juniors and seniors interested in the advanced study of materials science. Preference is given to students concentrating in physical and analytical chemistry.

## Grace Wheeler McClintock and David Hilton Wheeler

## Educational

An annual gift from this fund is used to provide financial aid for worthy students. Beneficiaries must have financial need, and they must rank in the upper 50 percent of their class.

John D. Wheeler Scholarship Fund
The income from this fund, established by Margaret Seelbach Wheeler in honor of her husband, John D. Wheeler, Class of 1961, on the occasion of his birthday, is used to provide scholarship assistance to eligible students from northeast Ohio majoring in the social sciences.

## Lewis A. Wible Memorial Fund

The income from this fund, established by gifts from the Union Electric Steel Corporation and friends in memory of Lewis A. Wible, Class of 1942, who served as a Trustee of the College from 1961 to 1979 , is used to provide scholarship assistance for eligible students.

## Floyd A. Williams, Jr. Scholarship Fund

The income from this fund, established in 1987 by the Wild Wind Harvest Committee, is used to provide scholarship assistance to an eligible music student selected by the faculty of the music department. Preference will be given to students from Warren County, Pennsylvania.

## Frank D. Williams and Clara R. Williams Scholarship

Established by their daughter, Miss Jessie A. Williams, Class of 1903, in memory of her parents, Frank and Clara R. Williams, income from the trust estate provides funds for college and graduate school scholarships for worthy and deserving students from Venango County in Pennsylvania. Priority is given to those students who elect to attend Allegheny.

## Erik P. Woit International Student Scholarship

This fund, established by Bonnie Ford Woit, Class of 1953, in memory of her husband, Erik P. Woit, who came to Allegheny from Latvia in 1949, is used to provide scholarship assistance to students in need from countries that are in the developing part of the world. At present that would especially include those in Africa, Central America and parts of Eastern Europe such as Latvia. It also might include someone from the Middle East such as from Palestine. Over the years the conditions may change in certain regions, but the emphasis should always be on a student in need from a country in need.

## Wolves Club of Meadville Scholarship Fund

The income from this fund, established by the Wolves Club of Meadville, Pennsylvania, is used to provide scholarship assistance to eligible incoming freshmen who are residents of Crawford County, Pennsylvania, graduated in the top fourth of their high school class, and are enrolled full time in an undergraduate degree program at Allegheny.

## George W. Wright Fund

The income from this fund, established by George W. Wright and awarded on the recommendation of Mr. Wright's representative, is used to provide scholarship assistance to students from Mercer County.

## Paul R. Zavarella Scholarship Fund

The income from this fund, established by his friends, colleagues, and wife Jaci Zavarella, in memory of Paul Zavarella, Class of 1953, shall be used to provide financial aid to students who have achieved superior academic records or who manifest promise of outstanding academic success and who have a proven financial need. Preference shall be given to students currently living in Plum Borough, Pennsylvania. If no such students from Plum Borough qualify, the scholarship is to be awarded to a qualified student from Allegheny County, Pennsylvania.

## Wayne E. and Henrietta E. Zuck Scholarship Fund

The income from this fund, established by Wayne E. and Henrietta E. Zuck, is used to provide scholarship assistance to students preparing for the ministry.

## Loan Funds

The College participates in the federal Perkins Loan Program, a low interest (five precent) federal loan program that requires institutional participation. The income from the following funds is used to fund the College's institutional participation

## Chambers Fund

The income from this fund, established through a bequest of George W. Chambers, is used to provide financial assistance to eligible students.

## Wesley Chambers Memorial Fund

The income from this fund, established by Anna C. Morck, in memory of her father, Wesley Chambers, Class of 1854, is used to provide financial assistance to eligible students.

## Class of 1890 Loan Fund

The income from this fund, established through a bequest of John L. Porter, is used to provide financial assistance to eligible students.

## A. A. Culbertson Student Loan Fund

The income from this fund, established by A. A. Culbertson, is used to provide financial assistance to eligible students who have completed their first year.

## Leonard J. Field Loan Fund

The income from this fund is used to provide financial assistance to eligible students preparing for the ministry.
John Norwood Gardner II Emergency Student Loan Fund
The income from this fund, established by a gift from George V. Gardner, Class of 1943, in memory of his son, John N. Gardner II, is used to provide emergency loans to students.

## James T. Hadley Fund

The income from this fund, established by the will of Emma Hadley Redding in memory of her brother, James T. Hadley, is used to provide
financial assistance to eligible students.

## Lindley Fund

The income from this fund, established by Lucy Lindley, is used to provide financial assistance to eligible students.

## Noble G. Miller Fund

The income from this fund, established by Noble G. Miller, Class of 1861, is used to provide financial assistance to eligible students.

## S. John Morrow Student Loan Fund

The income from this loan fund is used to provide assistance to eligible students wishing to gain their education at Allegheny College. The fund is invested, and in any year in which there is no request for a loan, the income may be used for direct scholarship aid to any eligible student in need of financial assistance.

## Mrs. E. Barnier Shaw Fund

The income from this fund, established by Mrs. E. Barnier Shaw, is used to provide financial assistance to eligible students.

## Phebe Tyler Memorial Fund

The income from this fund, established through a bequest of Phebe Tyler, is used to provide financial assistance to eligible students.

## Prizes

The following funds are used annually for prizes:

## Dennis Andrews Memorial Trophy Fund

The income from this fund, established by Elwood F. Andrews, the father of Dennis Andrews, Class of 1966, is used to provide an annual awar d to the senior male and female athletes who have shown a career of strong moral character and leadership at Allegheny College as determined by the Director of Athletics. The fund may also provide for other needs of the athletic department at the discretion of the Director of Athletics.

## A. L. Ballinger Prize

The income from this fund is used to provide an award for an eligible student. The candidate is approved by the Allegheny Student Government.

## Wayne Brewer Memorial Fund

Established by family and friends in memory of former faculty member Dr. Wayne Brewer, this fund provides support to student research leading to the senior project as approved by the Department of Geology and a prize presented to a geology student who has maintained the spirit of intellectual adventure through research and demonstrated superior quality in the research project.

## Richard L. Brown Physics Prize

The income from this fund, established by friends of Dr. Richard L. Brown, is used to provide an annual prize to a senior physics major for outstanding work on the senior project.

## Guy Emerson Buckingham Prize in Psychology

The income from this fund, established by the alumni of Allegheny College in honor of Professor Guy Emerson Buckingham, who taught in
the Psychology Department for 40 years, is used to provide an annual prize to the student showing the greatest promise for a distinguished career in psychology.

## Robert E. Bugbee Memorial Fund

The income from this fund, established by friends of Allegheny College in memory of Robert E. Bugbee, who taught in the Biology Department for 27 years, is used to honor the senior student in biology who has demonstrated the most profound level of scientific achievement.

## Civic Engagement Council Prize

This fund is awarded to the junior or senior student who has produced the most outstanding project in academic community based learning and has modeled those qualities of civic engagement embodied by the College's mission statement. Recipients are selected by a subcommittee of the Civic Engagement Council.

## George R. Coon Memorial Football Award

The income from this fund, established by friends and family of George R. Coon, Class of 1977, provides for an award to the senior football player whose desire to participate and whose dedication to team success have earned the highest respect of his fellow teammates. The balance, if any after the awarding of the trophy/plaque may provide for other needs of the athletic department at the discretion of the Director of Athletics.

## John Scott Craig Fund

The income from this fund is used to provide an annual prize to the junior man highest in general excellence.

## Doane Distinguished Scholar Award

The income from this fund, established by Sandra Doane Turk, is used to recognize the top 10 students from the first year, sophomore, and junior classes with the Doane Prize and a medal. Recipients also receive an award of $\$ 100$.

## Foster B. Doane Prize in Art

This award recognizes outstanding achievements in art, as determined by the faculty of the Art Department and an additional judge. First prize and honorable mention are awarded in each of four areas: painting, graphics, sculpture or ceramics, and art history.

Irwin and Alice Gertzog Prize for the Best Senior Essay in American Politics
Established by Raquel Lauritzen in honor of Professor Irwin and Mrs. Alice Gertzog, this fund provides recognition and a financial reward to the student selected. The purpose of this prize is to encourage senior students to participate in writing quality essays on the subject of American politics. Recipients are selected by the Political Science Department faculty and announced at the College's annual Spring Honors Convocation.

## Iva Patterson Gilmore Prize in Psychology

The income from this fund is used to provide an annual award to the student writing the best paper in psychology during the year.

## Paul Henry and John V. Gilmore Prize

The income from this fund, established by Dr. John V. Gilmore, Class of 1930, in memory of his brother, Paul Henry Gilmore, is used to present an annual award to a student for outstanding contribution to theatre arts at Allegheny.

## Graduate Student's Prize in Economics

The income from this fund is used to provide an annual prize to a senior whose achievement has been outstanding and whose promise as a graduate student is substantial.

## Harold Huntley Haine Prize in History

The income from this fund, established by a gift from Harold Huntley Haine's niece, Anne B. Buchanan, is used to provide an annual award to an eligible senior history major who has demonstrated academic promise in the area of American history.

## Blair Hanson Prize in Modern Languages

The income from this fund, established in honor of Professor Blair Hanson, former chairperson of the Modern Languages Department, in recognition of her many years of dedicated teaching at Allegheny is used to provide an annual student prize in the Modern Language Department.

## Sara Homer Junior English Major Prize

The income from this fund is used to provide an annual prize to the most promising junior major in the English Department.

## Clair A. Jackson Football Prize

The income from this fund is used to provide an award granted to the Lineman of the Year.

## Janet Thomas Johnson Prize

The income from this fund, established by Earl W. Johnson, Class of 1949, and Mrs. George E. Thomas, in memory of Janet Thomas Johnson, Class of 1962, is used to provide an annual prize to the member of the junior class who has shown the most improvement in his or her academic career and who plans to become a teacher at the primary level. The recipient is selected through the Dean of Students Office.

## Louise Jordan Memorial Fund

The income from this fund is used to provide an annual award to an eligible non sorority woman of superior ranking in scholarship and general merit.

## Kappa Kappa Gamma Alumnae All College Scholarship Prize

The income from this fund, established by the Gamma Rho Alumnae Chapter of Kappa Kappa Gamma, is used to fund an annual award to a senior sorority woman who has manifested the combined qualities of good scholarship, interest in the College as a whole, and devotion to the interests of student life.

## Alton D. Kidd Memorial Internship Prize

The income from this fund is used to provide an annual award to an Allegheny student to support an internship during the summer following the junior year at either the national or a state capitol. The internship is to be in either a legislative or an executive branch office.

## Ruth Williams Knights Prize

The income from this fund, established by alumni of Allegheny to honor Mrs. Knights on the occasion of her retirement as Associate Dean of Students, is used to fund an annual award to the junior man or woman who is distinctly outstanding in activities, scholarship, and service to the College. The recipient is chosen by a committee of students, faculty and administration, chaired by the President of the College or his designee.

## Maurice E. "Rink" Kofford, Class of 1922, Prize

The income from this fund, established by Maurice E. Kofford, Jr., Class of 1951, in honor of his father, Rink Kofford, Sr., Class of 1922, is used to provide annual awards for the male junior or senior basketball team member with the highest grade point average, outstanding male athlete and outstanding female athlete. Any additional income may be used to benefit the College's Athletic Department.

## Don M. Larrabee History Prize

The income from this fund is used to provide an annual award for the best thesis or essay on history, preferably American. The recipient is selected by a committee composed of the Dean of the College, the Chairperson of the Department of History, and a third faculty member of their choosing.

## Lotze Essay Competition

The income from this fund is used to provide a prize for the best discussion written by an Allegheny student that explores some aspect(s) of the relation of the sciences to the other components of the liberal arts education. The fund was established by Barbara Lotze, Professor Emerita of Physics, in remembrance of her late husband, Dieter P. Lotze, Professor of Modern Languages, who taught German language and literature at Allegheny for more than 26 years. This prize is intended to recognize not only his achievements as teacher and scholar, but also his collaboration with Barbara Lotze in an attempt to enhance communication between their different academic disciplines. The prize is normally awarded yearly; however, an exception may be made if, in the judges' opinions, no essay of satisfactory quality was entered.

## Mildred Joanna Ludwig Prize

The income from this fund, established by an anonymous donor, is used to provide an annual prize to an outstanding student majoring in a modern foreign language.

## Frederick and Lucille Marantz Memorial Prize

The income from this fund is used to provide an annual award by the Department of Music to outstanding piano students.

## Dr. Frank E. McElree, Sr. Memorial Prize Fund

The income from this fund, established by Dr. and Mrs. Frank E. McElree, Jr., Class of 1947, is used to provide an annual prize to a graduating senior who is planning a career in the health care field, who has shown marked growth and improvement as an undergraduate student, and who gives promise of continued success in his or her chosen work.

## James Edward Meadowcroft Memorial Award

Established in memory of James Edward Meadowcroft, Class of 1929, by his widow, Alberta K. Meadowcroft, and two sons, Dr. James A. Meadowcroft, Class of 1964, and Dale E. Meadowcroft, Class of 1968, this fund is used to provide a $\$ 1,000$ award, presented annually to the man of the junior class who, in the opinion of a faculty committee, has demonstrated superior qualities academically, musically, and spiritually during his first three years at Allegheny.

## Ethel Moore Miller Memorial Fund

The income from this fund is used to provide an annual cash prize to a student displaying outstanding musical talent. The prize will be awarded to a junior or senior who is studying music at the College and who has
shown exceptional progress and ability in his or her musical studies and performances and has contributed generously to the cultural life of the College community.

## Alice Kemp Moessner Prize in Modern Foreign Languages

The income from this fund, established by an anonymous gift, is used to provide an annual award to an outstanding junior or senior student chosen by the Department of Modern and Classical Languages.

## George A. Mulfinger Prize Fund

The income from this fund, established by Dr. Carl L. Mulfinger, Class of 1915 , is used to provide an annual prize to the student writing the best senior project in English.

## Myford Memorial Fund

The income from this fund, established by students and friends of the College in honor of Francis W. Myford, Class of 1926, is used to provide an award to the "A" man in football who ranks highest in scholarship.

## Edith Mead Osborne Memorial Fund

The income from this fund, established in memory of Edith Mead
Osborne, is used to provide an annual award to a senior student who shows marked musical ability, talent, or direction in voice, piano, or organ.

## Philo Franklin Oration Fund

The income from this fund, established by the Philo Franklin Literary Society, is used to award a student for outstanding achievement in the field of speech communication.

## Political Science Senior Project Prize

The income from this fund is used to award an annual prize to a senior Political Science major whose senior project reflects outstanding performance. The recipient is selected by the Political Science Department.

## Given from the estate of John L. Porter:

## 1. Flavia Davis Porter Prize

The income from this fund, established through a bequest of John L. Porter, Class of 1890 , is used to provide a prize every two years to the student who is accredited by a majority vote of the student body to be the most talented instrumental musician in the College.

## 2. Mary A. Flower Prize

The income from this fund is used to provide an annual prize to the most outstanding senior student majoring in English. The recipient is selected by the English Department.

## 3. Belle McClintock Fry Prize

The income from this fund, established through a bequest of John L. Porter, Class of 1890 , is used to provide a prize every two years to the student who is accredited by a majority vote of the student body to be the most talented singer in the College.

## 4. James Bennett Porter Prize

The income from this fund, established through a bequest of John L. Porter, Class of 1890, is used to provide an annual prize to the student in the freshman class who is accredited with the highest average in scholarship for the first year.

## 5. John L. Porter Prize

The income from this fund, established by John L. Porter, Class of 1890, is used to fund an annual prize to the student who writes the best thesis on a topic of political economy.

## 6. William Edgar Porter Prize

The income from this fund, established through a bequest of John L. Porter, Class of 1890 , is used to fund an annual prize to the student in the junior class who is accredited with the highest average in scholarship for the year.

## Lynn Pyle Memorial Prize

The income from this fund, established by Mr. and Mrs. Ralph D. Pyle of Pittsburgh, Pennsylvania, is used to fund an annual prize to a female student who has contributed to the College community by continuing participation in a variety of college activities. The names of the recipients are recorded on a plaque that is permanently installed in Brooks Hall.

## Rivbacher Prize for Academic Advancement Fund

The income from this fund, established by Jeffrey Leimbacher, M.D. and Francis R. Rivette, Esq., both of the Class of 1974 and Judith LaManna Rivette, Esq., because of their desire to recognize academic improvement, is used to provide an annual prize to the graduate who has shown the greatest improvement in his or her grade point average from the 1st semester of freshman year through the 1st semester of senior year.

## Daniel E. Rouse Memorial Prize Fund

The income from this fund, established by the friends and family of Daniel E. Rouse, Class of 1975, is used to recognize a senior geology major whose record demonstrates high academic standing and leadership in campus activities.

## Jonathon Rusk Memorial Prize Fund

The income from this fund, created by the friends and family of Jonathan Lee Rusk, in his memory, provides an award each year to a senior physics major for the outstanding senior research project in experimental physics.

## Harald Robert Sauer Prize Fund

The income from this fund, established through gifts from Harald Sauer in memory of his mother, Elli, father, Georg and brother, Johannes and later added to in memory of Harald, is used annually to award two prizes to outstanding seniors majoring in French, German and/or Spanish. The recipients will be chosen by the Modern and Classical Languages Department faculty.

## Samuel Schick Prize

The income from this fund, established by a gift from the Barry and Florence Friedberg Family Philanthropic Fund, is used annually to provide a prize for the best Senior Project on an aspect of Jewish studies.

## Honorable Raymond P. Shafer Outstanding Player Award

The income from this fund, established by the Honorable Raymond P. Shafer, Class of 1938, is used to provide an annual award to the most outstanding basketball player and also provide for other needs of the athletic department at the discretion of the Director of Athletics.

## Ione Sandberg Shriber Young Writer's Fund

The income from this fund, established by friends and family of Ione Shriber, provides a $\$ 150$ prize to be awarded to the graduating senior who has excelled in the field of writing and shows promise, as judged by the English Department.

## Ray F. Smock Prize in Political Science

The income from this fund is awarded annually to an eligible senior in
recognition of special attainment and promise in the field of state and local politics.

## Frederick H. Steen Prize for Excellence in Mathematics

The income from this fund, established by Allegheny alumni/math majors to honor Dr. Frederick H. Steen, Professor of Mathematics at the College from 1942 to 1978, Chairman of the Department for 27 years and Secretary of the Faculty for 20 years, is used to provide an annual prize for general excellence to a math major selected by the Mathematics Department.

## Lauretta Good Strayer Memorial Prize

The income from this fund, established by the Mu Phi Epsilon Alumnae Club of Meadville, is awarded to an outstanding piano or organ student.
The recipient is selected by the Department of Music.

## Ann H. and Daniel F. Sullivan Award for Outstanding Musicianship

Established by Ann H. and Daniel F. Sullivan, income from this fund is used to provide an annual award to an outstanding student musician to be selected by the Music Department faculty. The Music Department may also use the fund for the general benefit of the Music Department and its students.

## Wakefield Oration Fund

The income from this fund, established through a bequest of James A. Wakefield in honor of Reverend Samuel Wakefield, D.D., is awarded annually to a student demonstrating outstanding achievement in the field of mass communications.

## F. Dawson Weber Football Prize

The income from this fund is used to provide an award granted to the Linebacker of the Year.

## Robert C. Wilson Prize in Drama

The income from this fund, established by the wife of Robert C. Wilson, is awarded annually to a senior man who has demonstrated outstanding achievement in the field of dramatics and who intends to pursue graduate study in drama.

## Paul G. Zolbrod Prize

The income from this fund, established by friends, colleagues and former students of Professor Paul G. Zolbrod in honor of his 30 years of teaching at Allegheny, is used to recognize the outstanding junior English major, chosen by the English Department, for exceptional academic achievement, performance in the seminar, and contributions to the general life of the English Department

## Endowments

Special Endouments Professorships

## Eliza Kingsley Arter Chair of English

The income from this fund, established by Frank A. Arter, is used to support a professorship in the English Department.

## Francis Asbury Arter Chair of Mathematics

The income from this fund, established by Frank A. Arter, Class of 1864, is used to support a professorship in the Mathematics Department.

## Lyle and Mary Biehler Chair in Modern Languages

The income from this fund, established by Lyle Biehler in honor of his beloved wife, Mary Hilderbrand '21, a dedicated teacher of French, Latin, and English, is used to support a chair in the modern languages.

## Arthur E. Braun Chair of Political Science

The income from this fund, established by a grant from the Buhl Foundation of Pittsburgh, Pennsylvania, is used to support a professorship in the Political Science Department.

## Truman D. Collins Chair of Philosophy and Education

The income from this fund, established by Dr. Truman D. Collins, is used to support an endowed professorship in the Philosophy Department.

## Paul E. Hill and Mildred L. Hill Chair of Chemistry

A professorship supported by the income from the Paul E. Hill, Class of 1917, and Mildred L. Hill Memorial Fund.

## Harry A. Logan, Sr., Professorship of American History

The income from this fund, established by Helen T. Logan and Harry A. Logan, Jr. in memory of Harry A. Logan, Sr., is used to support a distinguished tenured faculty member in the History Department whose teaching and scholarship focus primarily on American History. If no faculty in American History are eligible, the fund may be used to support a faculty member in the History Department with a non American focus.

## Frank T. McClure Chair of Greek and Latin

The income from this fund, established through a bequest of Frank T. McClure, Class of 1899, is used to support a professorship in the Greek and Latin languages.

## National Endowment for the Humanities Chair

The income from this fund, established by the National Endowment for the Humanities, along with matching funds from friends of the College, is used to support a professorship to recognize scholarly achievements by Allegheny College faculty members in the humanities and to provide opportunity for further scholarly activities. The chair may be held for up to three consecutive years by the same faculty member.

## Mary M. Newton Chair of Physics and Astronomy

The income from this fund, established by Mary M. Newton, is used to support a professorship for Physics and Astronomy.

## Andrew Wells Robertson Chair of Economics

The income from this fund, established by the Westinghouse Corporation in honor of Andrew W. Robertson, Class of 1906, is used to support an endowed professorship in the Economics Department.

## Clarence and Helena Mumaw Schwartz Professorship in the Natural Sciences

The income from this fund, established through a bequest of Helena Mumaw Schwartz, Class of 1936, and her husband Clarence J. Schwartz, Class of 1933, is used to attract and retain outstanding teachers/mentors in biology and the related life sciences.

## Frederick F. Seely Chair of English Literature

The income from this fund, established by Cassandra M. and George M. Henderson, Class of 1950, is used to support a professorship in the English Department.

## Thomas M. and Sarah Stewart St. Clair Professorship

The income from this fund established by Thomas M. St. Clair, Class of 1957, and Sarah Stewart St. Clair, Class of 1959, to enhance the stature and support of a distinguished faculty member providing leadership in Allegheny College's comprehensive program encompassing the First Year/Sophomore Seminars, the Junior Seminar, and the Senior Project (or successor programs), designed to ensure that all Allegheny graduates are equipped to think critically, to communicate clearly and persuasively, and to meet challenges in a diverse and ever changing world. Appointments to the St. Clair Professorship will be made by the President in consultation with the Dean for periods not to exceed five consecutive years for an individual.

## Bishop James Mills Thoburn Chair of Religious Studies

The income from this fund, established by the Western Pennsylvania Conference of the United Methodist Church, is used to support a chair of religious studies.

## Henry B. and Patricia Bush Tippie Professorship

The Tippie Professorship was established by Henry B. and Patricia Bush Tippie, Class of 1956, to enhance the stature and support of a distinguished faculty member in the humanities or social sciences at Allegheny College. The income from this fund makes it possible to offer enhanced compensation in recognition of the unusual contributions that the chairholder makes to teaching, scholarship, and life at the College. Initial appointments to the Tippie Chair will be made by the President in consultation with the Dean for a period of five years, with the possibility of renewal.

## Lectureships

## William Preston Beazell Memorial Fund

The income from this fund is used to bring distinguished persons, scholars, or professors to the campus to lecture or conduct a series of lectures. The fund may also be used for visiting artists, composers, and poets to live in residence.

## Chester A. Darling Lectureship

The income from this fund, established by friends of Professor Emeritus Chester A. Darling, is used to bring distinguished speakers to the College's campus.

## James B. Hamilton Endowed Lectureship

The income from this fund is used to bring distinguished speakers to the campus, with preference given to lecturers who are interested in research.

## Huidekoper Kidder Lectureship

The income from this fund, established by Edgar Huidekoper and his sister, Mrs. Henry P. Kidder, is used to bring distinguished speakers to the College's campus.

## Lord Lecture in Chemistry Endowment Fund

The income from this fund, created by the Thomas Lord Charitable Trust, is used to bring distinguished scientists to campus to lecture on chemistry related topics.

Samuel Sherman Lord, '42 and Dick Sherman Lord, '50 Fund The income from this fund, established by Dick Lord, Class of 1950, and by Nadene E. Lord in memory of her husband Samuel S. Lord, Class of 1942, is used to provide support for the Alexander String Quartet Residency. Should this particular residency cease to exist, the fund will be used to support another music residency.

## Barbara Lotze Endowed Lectureship

The income from this fund, established by a gift from the William L. Waytena Foundation in honor of Dr. Barbara Lotze, Professor of Physics at Allegheny for 27 years, is used to bring distinguished scientists to the College to lecture in physics.

## Leila W. Parsons Memorial Lectureship in Mathematics

The income from this fund, established by Professor William H. Parsons, chairman of the Geology Department from 1947 to 1974, is used to bring distinguished mathematicians to campus for a series of lectures in math.

## Jonathan Lee Rusk Memorial Physics Lecture Fund

The income from this fund, established by friends and family of Jonathan Lee Rusk, is used to bring speakers of national prominence in the field of physics to the College's campus.

## Samuel Schick Lecture Series

This fund is made possible by a gift from The Barry and Florence Friedberg Family Philanthropic Fund. The income from this fund is used to support an annual lecture on some aspect of Jewish history, literature, politics, or religion.

John A. M. and Anna Regina Stewart Concert Series Fund
The income from this fund is used to finance concerts at the College for the benefit of the students, the faculty, and the public.

## Sturtevant Lectureship

The income from this fund, established by Paul Sturtevant, Class of 1899, and Watkin P. Sturtevant, Class of 1906, in memory of their father, the Honorable John C. Sturtevant, is used to secure a series of lectures from someone of recognized authority in literature, history, or the social sciences.

## Towns Family Lectureship in Practical Ethics

The Towns Family Lectureship in Practical Ethics was established at Allegheny College with gifts from Thelma and John W. Towns, Jr. in 1992, in honor of his mother Helen Davis Towns, Class of 1920. Mr. Towns is an alumnus of the College, Class of 1950. The income from this fund provides a forum for encouraging informed ethical decision making among Allegheny students by bringing to the Allegheny campus notable experts on moral choice within the Jewish, Christian, and Islamic traditions.

## Harry C. Winslow and Madeleine King Winslow Ecumenical Fund

The income from this fund, established through a bequest of Madeleine King Winslow, is used to bring an outstanding religious leader to lecture at the College each year. Lectures are to be open to the public, and lecturers of different faiths are to be selected on a rotating basis.

## Other Funds

## Earl W. Adams, Jr. Endowment Fund

The income from this fund, established by Mr. and Mrs. William H. Brown, Jr., Class of 1980, in honor of Dr. Earl W. Adams, Jr., Professor of Economics, is used to bring students, faculty, and distinguished business leaders together in an annual Roundtable on issues of regional, national, and global interest.

## Allegheny College Choir Fund

The income from this fund, established initially by a gift from David C. Love and Yuko Iino Love, both Choir members from the Class of 1982, is used to benefit the Allegheny College Choir and is to be expended under the direction of the director of the Choir, in consultation with student choir members.

## Allegheny College Collaborative Research and Experiential Learning Endowment

The income from this fund, established by Erie Insurance in 2007, provides summer stipends for students participating in collaborative research and internships at the discretion of the Dean of the College in consultation with the Dean of Students.

## Christian L. Allison '83 and Jane K. France Endowment Fund*

The income from this fund, established by Christian L. Allison, Class of 1983, and his wife, Jane France, is used to provide support to faculty and student programs within the Managerial Economics track in consultation with the Dean of the College.

## Barnes Womer Health Professions Fund

The income from this fund, established by Clark W. Barnes in memory of his mother, Mary Lou Womer Barnes, Class of 1946, his father Lynn L. Barnes, not an Allegheny graduate, but a Meadville native and business owner, and his grandfather, Dr. W.A. Womer, Class of 1900, is used to provide support to meet the needs of the Health Professions program as determined by the Health Professions advisor.

## Barnhart Fishel Endowment Fund

The income from this fund, established in 1994 by Kenneth L. Kolson, Class of 1967, and Jane Barnhart Kolson, Class of 1969, in memory of Mrs. Kolson's parents and maternal grandparents, is used for support of the College's academic programs.
Paula Bauer Endowed Music Department Fund
The income from this fund is used to support Allegheny College Music Department needs as determined by the Music Department. The primary intent of the fund is to support the applied instruction in performance of students whose course work is at the juried level.
Robert W. Baum, Class of 1958, Faculty Support Fund*
The income from this fund, established by Robert W. Baum, Class of 1958, is used to provide support to faculty and/or their departments at the discretion of the Dean of the College.

## Reverend and Mrs. Carl Edward Berges Study Abroad Fund

The income from this fund, created through the generosity of Judith A. Berges, Class of 1963, in memory of her parents, the Reverend and Mrs. Carl Edward Berges, is used to help defray educational expenses for
international students or students studying away from campus. A committee consisting of the Dean of Students, the Dean of the College and the Director of the International Office selects the recipient. Candidates for the award need not be language majors.

## Robin C. Bunch Fund*

The income from this fund, established by Charles E. Bunch and Christine Cronenwett in honor or their daughter Robin C. Bunch, Class of 2007, is used to support Allegheny College's student internship programs and/or students in Allegheny approved internships, at the discretion of the Dean of Students.

## Chapel Organ Recitals Fund

The income from this fund, established by Edward S. Hodgson, Jr., Class of 1947 , is used to provide an annual or bi annual organ concert in order to create opportunities for superb organ music performances at Allegheny College and afford the students of Allegheny an opportunity to appreciate the beauty of organ music.

## Class of 1938 Presidential Discretionary Fund

The income from this fund, a permanent fund established by the Class of 1938 on the occasion of its 50th reunion the first 50th reunion fund to be established at Allegheny, is available to the President of the College to help meet Allegheny's changing needs and opportunities.

## Class of 1939 Senior Research Fund

The income from this fund, a permanent fund established by the Class of 1939 on the occasion of its 50th reunion, is used to support student research in conjunction with the Senior Comprehensive Project.

## Sarah B. Cochran Endowment for Presidency

The income from this fund, established by Sarah B. Cochran, is used to support the presidency.

## Richard J. Cook and Teresa M. Lahti Student Faculty Research Fund

The income from this fund, established in honor of Richard J. Cook, President Emeritus of the College from 1996 to 2008, and his wife Teresa M. Lahti by appreciative alumni, colleagues, and friends, is awarded to students and faculty to support their research and ongoing work.

## Creek Connections Environmental Education Fund

The income from this fund, established by James O. Palmer and Susan M. Rankin, is used to provide support for the Creek Connections program affiliated with Allegheny College.

## Edward David, Class of 1961, Faculty Support Fund*

The income from this fund, established by Edward David '61, is used to provide support to faculty and their departments and/or programs at the discretion of the Dean of the College.

## Dean's Endowed Fund*

The income from this fund, established by Steven D. Levinsky, Class of 1978, and Denise Girardin, is used to provide support to faculty and their departments and/or programs at the discretion of the Dean of the College.

## Dean's Fund for Student and Faculty Collaborative Research*

The income from this fund, established by anonymous donors, is used to support a wide range of faculty student collaborative research and is under the discretion of the Dean of the College.

## William S. Demchak, 1984, and Debbie Demchak Student Internship Fund*

The income from this fund, established by William S. Demchak, Class of 1984, and Debbie Demchak, is used at the discretion of the Dean of Students to support student internships.

## Demmler Fund

The income from this fund, established by colleagues, friends and family following an initial grant from Mellon Bank in honor of Ralph H.
Demmler, Class of 1925, distinguished attorney, Trustee and one time Chairman of the Board, is used in support of academic program enhancement. Proposals may be submitted to the Dean of the College.

## Doane Student Art Purchase Fund

The income from this fund, established by the trustees of the F.B. Doane Foundation, is used for the purchase of outstanding Allegheny student art works.

## Betsy Dotson, Esquire '74 Experiential Learning Fund

The income from this fund, established by Mr. and Mrs. Robert Bruce Dotson, in memory of their daughter, Betsy Dotson '74, is used to provide financial assistance to students involved in experiential learning opportunities in the Washington, D.C. area.

## Samuel K. Edwards Fund*

The income from this fund is used to supplement the annual budget in support of faculty research and development. The fund was established in honor of Samuel Kermit Edwards, Professor of Classics 1962 1987: teacher, colleague, friend, and exemplar of the highest ideals of a liberal arts education. The Dean of the College will administer this fund.

## Louise Fuller Eichert, Class of 1929, Fund

The income from this fund, established through a bequest of Louise Fuller Eichert, Class of 1929, is used to support the needs of the College.

## Endowed Equipment Fund For the Sciences

The income from this fund, created by an anonymous foundation in 1998, is used to support the purchase or replacement of science equipment as determined by the department chairs in the natural sciences division.

## Dr. Bernard B. Engel, Class of 1957, and Bette Oliver Engel Fund*

The income from this fund, established by Bernard B. Engel, Class of 1957, and children in memory of his wife, Bette Oliver Engel, is used to provide assistance to support student research and production costs in conjunction with their senior comprehensive project, as determined by the Theatre Department and the Dean of the College.

## Gail Howe Fahrner Fund

The income from this fund, established in honor and appreciation of Gail Howe Fahrner, Class of 1956, is used to provide support for the Centers for Community Engagement at Allegheny College.

## Fowler, Robinson and Whitaker Family Endowment Fund*

The income from this fund, established by Charles F. Whitaker III, Class of 1966, and Shirley L. Whitaker is used to help meet Allegheny College's changing needs and opportunities at the discretion of the Dean of the College. Preference is given to programs to help students in need of academic learning assistance, especially those with medical or psychological issues that may impede learning.

## Nancy Frederick Art Department Endowed Fund

The Nancy Frederick Art Department Fund, established through the bequest of Nancy A. Frederick '52, shall be used to provide support for the art department at the discretion of the art department chair in consultation with the Dean of the College.

Carol Darnell Freund, Class of 1954, Dean's Discretionary Fund* The income from this fund, established by Carol Darnell Freund, Class of 1954, is used to enhance student learning at the discretion of the Dean of the College.

## Dr. Wendell B. Gealy Fund

The income from this fund is used by the Department of Geology for the purchase of periodicals or equipment.

Lester G. Graf '57 Endowed Faculty Compensation Fund
The income from this fund, established by Lester G. Graf, Class of 1957, is used to support faculty compensation at the discretion of the Dean of the College.
W. Lawrence and Winifred Gulick Fund for Choral Programs in Honor of Ward and Vicki Jamison
The income from this fund, established by Kristina Gulick Schaefer, Class of 1983, is used to provide supplement educational opportunities for student singers participating in Allegheny College's choral ensembles to assist in preserving Allegheny's legacy of choral excellence by enabling student singers in ways that would not otherwise be possible.

## Heber Harper Endowed Fund

The income from this fund, established through a bequest of Reverend Heber R. Harper, Class of 1920, is used at the discretion of the Dean of the College for special activities in the fields of the Humanities.

## Bruce Harrison '45 History Department Fund

The income from this fund, established through a bequest of Bruce Harrison, Jr., Class of 1945, is used at the discretion of the Chair of the History Department to support research, learning and instruction, with an emphasis on the pre 1920 history of Eastern Europe.

## Bruce Harrison '45 Political Science Department Fund

The income from this fund, established through a bequest of Bruce Harrison, Jr., Class of 1945, is used at the discretion of the Chair of the Political Science Department to support research, learning and instruction, with an emphasis on the pre 1920 history of Eastern Europe.

## Carl F. Heeschen Fund

The income from this fund, established by friends of the late Professor Emeritus Carl F. Heeschen, is used to purchase works of art.

## Jonathan E. and Nancy L. Helmreich, Class of 1959, History Research and Book Fund

Income from this fund, made possible through gifts from Emeritus Professor of History Jonathan E. Helmreich and his wife, Nancy Moyers Helmreich, Class of 1959, is used to support faculty research in the History Department and the purchase of history related materials for the College's library.

## Hewlett Mellon Fund

The income from this fund is to be used at the discretion of the President for the general improvement of education at Allegheny College.

## Dr. Reginald W. Ivett, Class of 1936, Chemistry Endowment Fund

The income from this fund, established through a bequest of Reginald W. Ivett, is used to support the needs of the Chemistry Department.

## Edgar J. Kaufmann Charitable Foundation Fund

The income from this fund is used for faculty salaries or for scholarships to deserving students.

## Miriam Tyler Kennedy Memorial Fund

The income from this fund is used in support of the Annual Fund.

## Esther Kessler Memorial Fund

The income from this fund, established by Dr. Howard W. Kessler, Class of 1965 , is used to provide voice lessons for talented students.

Dusty Elias Kirk '75 and William R. Caroselli Student Support Fund*
The income from this fund, established by Dusty Elias Kirk, Class of 1975, and her husband William R. Caroselli, is used for student support in the English department.

## Richard Kleeman Student Art Projects

Established in honor of Professor Richard Kleeman on the occasion of his retirement from Allegheny College, where he taught for 39 years and was chairman of the Art Department. Income from the fund is used to support significant projects in art, either art history or studio, with preference given to art majors and minors. Students are required to submit a written proposal indicating the nature, scope, and cost of the project; recipients are selected by the Art Department.

## Herb Klions Psychology Department Fund

This fund, established by Dr. Herbert L. Klions, former Professor of Psychology and now Faculty Emeritus, is used at the discretion of the Chair of the Psychology Department to help defray travel expenses to a professional seminar or conference for students or recent graduates of the psychology department of Alleghey College.

## Klomp Family Endowment Fund

The income from this fund, established by Karen L. (Stollenmeyer) Klomp, Class of 1960 and her family, is used to provide support to faculty and their departments and/or programs at the discretion of the Dean of the College.

## Koppers Chemistry Fund

The income from this fund, established by Koppers Incorporated, is used to help finance major purchases of scientific equipment required by the Chemistry Department.

## Guy W. Kuhn Golf Fund

The income from this fund is used to provide support to the College's intercollegiate golf program.

## H. Albert Lauffer and Clara A. Lauffer Fund

The income from this fund, established by Verna Lauffer Alter, Class of 1911, in memory of her parents, is used to support the needs of the College as determined by the Board of Trustees.

Alyson Lawendowski, Class of 1993, Community Service Award
The income from this fund, established in memory of Alyson M.
Lawendowski, Class of 1993, is used to provide an annual award to a student who has made outstanding contributions to community service.

## John W. Lehman, M.D. Medical Ethics Fund

The income from this fund, established by Dr. John W. Lehman, M.D., Class of 1954, and his spouse Deborah J. Lehman, is used to provide financial assistance for course offerings, guest speakers, symposia and related activities for the purpose of providing an understanding of and appreciation for ethics in the practice of medicine.

## Ling Physics Fund

The income from this fund, established by Alice and Marion E. Russell in memory of Dr. Charles J. Ling, who served as Professor of Physics and Astronomy at Allegheny from 1906 to 1933, is used toward the purchase of books, equipment, and software for the Physics Department.

Professor Louis Jefferson Long Student Faculty Research Fund*
The income from this fund, established by Harry W. Shepard, Class of 1942, and his wife, Patricia Peck Shepard, in memory of Dr. Long,
Professor of Economics at Allegheny from 1935 to 1951 and Treasurer of the College during his last decade of service, is used to support a wide range of collaborative student faculty research activity.

## Richard H. Lund, Class of 1941, Fund

This fund was established in Mr. Lund's name as a recognition award by the C.I.T. Financial Corporation. The income is used for grants to encourage experimental or innovative courses and teaching techniques in the Department of Economics.

## Antoinette Swain Marwitz '66 Student Support Fund*

The income from this fund, established by Antoinette Swain Marwitz, Class of 1966, is used to provide student support at the discretion of the Dean of Students, with preference to study abroad programs.

## Harold A. McCurdy Memorial Endowed Fund

The income from this fund, established by Mr. and Mrs. John Bates, is used to support faculty research at the discretion of the Dean of the College.

## Robert M. '69 and Mary Lou (Lehman) '68 McGee Fund for

 Students*The income from this fund, established by Robert M. McGee, Class of 1969, and Mary Lou Lehman McGee, Class of 1968, is primarily used to support the educational needs of students with print disabilities, as determined by the Director of Student Support Services; these disabilities could lie in the areas of reading, writing and vision that could be accommodated by alternatives to standard print resources. If not needed for such purposes, the income may be, at the discretion of the Director of Student Support Services, used for the general support of programs for students with other disabilities.

## Cathy Forsyth McKeever, Class of 1963, Faculty Support Fund*

The income from this fund, established by L. Dennis and Cathelia J. McKeever, is used to provide support to faculty and their departments and/or programs at the discretion of the Dean of the College.

## Memorial Arbor Fund

The income from this permanent fund, established by Ann Simakas Degenhart, Class of 1971, in memory of her father, Alexander Simakas, and her brother, Christ Simakas, is used each year to purchase trees to be planted on the campus.

## Wayne Reynolds Merrick Fellowship in International Studies

The income from this fund, established by Wayne and Sally Merrick, is used to assist promising upperclass students, preferably juniors, majoring in International Studies to study for a semester or a summer abroad. If there are no eligible majors, the fellowship may be awarded for study abroad to promising students having a double major in political science and history, with an international emphasis. Professor Merrick taught at Allegheny from 1952 to 1982 and was chairman of the Political Science Department and of the interdisciplinary International Studies Committee for 19 years.

## Myers Faculty Support Fund*

The income from this fund is used to provide support for faculty development and student educational activities related to the Center for Political Participation at the discretion of the Dean of the College.

## National Endowment for the Humanities Fund for Faculty and Student Travel and Publishing

The income from this fund, established by a grant from the National Endowment for the Humanities with matching funds given by friends of the College, is used to help defray costs of faculty and students majoring in the humanities to attend professional conferences. Other faculty development activities may be supported.

## National Endowment for Humanities Foreign Language

## Assistantship

The income from this fund, established by a grant from the National Endowment for the Humanities with matching funds given by friends of the College, is used to provide for tuition and fees for a student language assistant in the Department of Modern and Classical Languages.

## National Endowment for Visiting Professorships in Humanities Fund

The income from this fund, established by a grant from the National Endowment for the Humanities and by matching funds provided by friends of the College, is used to provide short term replacements for faculty on leave.

## Christine Scott Nelson Faculty Support Fund

This fund, established by Christine Scott Nelson, Class of 1973, is used at the discretion of the Dean of the College to provide support for faculty activities that enhance Allegheny College's presence outside of western Pennsylvania.

## Christine Scott Nelson Study Abroad Expense Fund

The income from this fund, established by Christine Scott Nelson, Class of 1973, is used to provide funds to students in Allegheny approved study abroad programs to help defray expenses associated with the experience.

## Oak Ridge National Laboratories Internship Endowment

The purpose of this fund, established by Dr. Ruth Ann Peterson Verell, Class of 1957, is to provide funding for an internship for a current
Allegheny student at the Oak Ridge Laboratory.

## Professor Emeritus William Howard Parsons Geology Department Fund

The income from this fund, established in 1988 by William H. Parsons, Emeritus Professor of geology and chair of the department from 1947 to

1974, provides assistance, as determined by the department, to students majoring in geology.

## Risher Berlin Faculty Support Fund*

The income from this fund, established by Cheston M. Berlin, Jr. and Anne R. Berlin, Class of 1959 , is used to provide support to faculty and their departments and/or programs at the discretion of the Dean of the College.

## Robert W. Rockwell Christian Ministry Fund

The income from this fund is used for the benefit of Christ centered ministries on campus.

## Michael B. Schmitt Endowment

The income from this fund, also known as the Michael B. Schmitt Endowment for the Center for Political Participation, established in memory of Michael B. Schmitt, Class of 1971, by his friends and classmates, is used to support the activities of the Center for Political Participation at the discretion of the director of the Center and with the concurrence of the Dean of the College.

## Clarence and Helena Mumaw Schwartz Student Education Enhancement Fund

The income from this fund, established through a bequest of Helena Mumaw Schwartz, Class of 1936, and her husband Clarence J.
Schwartz, Class of 1933, is used to provide support for student research.

## Clarence and Helena Mumaw Schwartz Student Education Enhancement - ACCEL

The income from this fund, established through a bequest of Helena Mumaw Schwartz, Class of 1936, and her husband Clarence J.
Schwartz, Class of 1933, is used at the discretion of the Dean of Students to support internships, off campus study, service learning and other endeavors that enhance a student's educational experience.

## Frederick F. Seely Humanities Fund

The income from this fund, established by Pauline Seely Cosyns, Class of 1959, in memory of her late husband, Frederick F. Seely, Professor of English at Allegheny from 1931 to 1969 and chair of the department for 17 years, is used to provide support to faculty and departments within the humanities division, at the discretion of the Dean of the College.

## Colonel Edwin Van Duesen Selden Endowed Fund

The income from this fund, established by Elizabeth Selden in memory of her father, Colonel Edwin Van Duesen Selden, is used at the discretion of the History Department to further the study of American History.

## Patrick and Grace Moulthrop Sheehan Fund

The income from this fund, established by Florence Sheehan Newton, is used to provide memberships in learned societies and to help defray the cost of travel to professional meetings for selected members of the faculty.

## James F. Sheridan, Jr. Memorial Fund

Established by friends, family, and beloved wife Nancy in memory of Jim Sheridan, Allegheny alumnus, Professor of Philosophy and long time friend of the College, the income from this fund provides financial assistance to students pursuing studies on topics involving an interdisci-
plinary approach, of which philosophy or religious studies is one of the disciplines, to enable them to access educational resources that will enhance their studies.

## Walter Small Endowment Fund

The income from this fund, established through a bequest of Dr. Walter M. Small, Class of 1911, is used to support the needs of the College.

## Walter M. Small Geology Endowed Fund

The income from this fund, established by Dr. Walter M. Small, Class of 1911, is used for support of the geology department and its programs at the discretion of the department.

## Smock Parker Allegheny Choir Endowment

The income from this fund, established by a gift from Marjorie Smock Schuchat Westberry, Class of 1958, in honor of family members Rev. Dr. Muriel Smock Miller Severns, Class of 1952, Rev. Lee Wayne Parker, Jr., Class of 1953, Faye Smock Parker, Class of 1954, and Gail Smock Davis Chaffee, is used to benefit the Allegheny College Choir.

## Harold M. State Research Fellowship

The income from this fund, established in honor of Professor Harold M. State, Emeritus of the Department of Chemistry, by an appreciative student, Harry E. Bonner, Class of 1956, is awarded annually to third year students majoring in any one of the natural science departments.

## Joseph and Ann Harmony Steckler, Class of 1954, Fund*

The income from this fund, established by Ann Harmony Steckler, Class of 1954, is used to provide financial assistance for faculty travel. The use of the fund is under the direction of the Dean of the College.

George Andress Taaffe, Jr., Endowed Fund for Economics*
The income from this fund, established by Natalie Davis Taaffe Hoffman, Class of 1968, her children, and John and Nancy Watkins Dunham, Classes of 1959 and 1964, in loving memory of George A. Taaffe Jr., Class of 1968, is used to support students in the Managerial Economics Program as determined by ACCEL and the Economics Department. Preference is given to providing assistance to Economics majors or minors for the purpose of reducing expenses associated with College sponsored or approved internships or externships. If not needed by the Managerial Economics Program, the College has the discretion to provide assistance to any outstanding student for the purpose of reducing expenses associated with College sponsored or approved internships or externships.

## Thoburn Teaching Fund

The income from this fund, established by Thomas W. Thoburn, Jr., Class of 1948, and Tina Shufelt Thoburn, Class of 1947, to strengthen teaching and to recognize good teachers at Allegheny, is used for programs such as, but not limited to: providing funds for the annual Thoburn Foundation Award for Innovative Teaching in years in which there is an appropriate recipient; providing funds for faculty to take courses that will enhance their teaching; underwriting the cost of research projects in teaching; and funding special lectures.

## Henry J. Voegtly Memorial Fund

The income from this fund, established by Henry J. Voegtly, is used to bring public figures to the campus who are on the forefront of thinking and writing in the field of social ethics.

## Charles F. Weigel Fund

The income from this fund is disbursed annually to the College Annual Fund as a contribution in the name of the Class of 1924.

## Harry C. Winslow and Madeleine King Winslow Health Center Fund

The income from this fund, established through the bequest of Madeleine King Winslow, is used for maintenance and improvement of the building and facilities of the Harry C. Winslow Health Center at the College.

## Warner F. and Laura L. Woodring Fund

The income from this fund, established through the bequest of Warner Woodring, is added to the regular appropriation for the Departments of History and English in equal shares and is to be expended under the direction of the chairpersons of these departments.

## Betty Miller Zaro '41 Music Support Fund*

The income from this fund, established by Timothy Zaro, Class of 1979, in honor of his mother, Betty Miller Zaro, Class of 1941, on the occasion of her birthday, is used to provide for collaborative educational opportunities for faculty and students in Music at Allegheny College. First preference is given to funding expenses related to a performance tour by an ensemble led by department faculty. Second preference is given to funding a special concert on campus given by an ensemble led by department faculty.

## Library Endouments

## Emily Rusling Bates Fund

The income from this fund, established by Mrs. Arthur L. Bates, in honor of Arthur L. Bates, Class of 1880, LL.D.; Samuel P. Bates, LL.D.; and General James F. Rusling, LL.D., is used to provide financial assistance to eligible students. Any excess funds are to be used toward the purchase of books on American history and government for the College's library.

## Philip Mohr Benjamin Fund

The income from this fund, established through a bequest of Phillip Mohr Benjamin and gifts of family and friends, is used to purchase books for the College's library in the subject areas of history of medicine, science and public health problems.

## Henry F. Boettcher Fund

The income from this fund, established by Professor Henry F. Boettcher, a former member of the Allegheny faculty, is used for the purchase of books for the College's library.

## Laurence C. Boylan, Class of 1932, Memorial Fund

The income from this fund, established by Mrs. Elizabeth E. Boylan in memory of her husband, a lifelong educator, is used to purchase books for the College's library, with special preference given to autobiographical and biographical works.

## Paul B. and Alberta Cares Book Fund

The income from this fund, established by Professor Emeritus Paul G. Cares, is used to purchase books in English history.

## Kenneth H. and Thelma F. Cisney Memorial Fund

The income from this fund, established through a bequest of Kenneth H. Cisney, is used for the purchase of books for the library.

## Sara McQuiston Clark, Class of 1924, Book Fund

The income from this fund, created by Ralph A. clark, Class of 1924, in honor of his wife Sarah McQuiston Clark, Class of 1924, is used to purchase books for the College's library.

## Class of 1923 Memorial Fund

The income from this fund, established by gifts from class members, is used for the purchase of books and periodicals for the College's library.

## Class of 1969 Book Fund

The income from this fund, established by gifts from class members, is used for the purchase of books and periodicals for the College's library.

## Class of 1970 Book Fund

The income from this fund, established by gifts from class members, is used for the purchase of books and periodicals for the College's library.

## Class of 1971 Book Fund

The income from this fund, established by gifts from class members, is used for the purchase of books and periodicals for the College's library.

## Class of 1972 Book Fund

The income from this fund, established by gifts from class members, is used for the purchase of books and periodicals for the College's library.

## Class of 1973 Book Fund

The income from this fund, established by gifts from class members, is used for the purchase of books and periodicals for the College's library.

## Class of 1974 Book Fund

The income from this fund, established by gifts from class members, is used for the purchase of books and periodicals for the College's library.

## Class of 1975 Book Fund

The income from this fund, established by gifts from class members, is used for the purchase of books and periodicals for the College's library.

## Class of 1976 Book Fund

The income from this fund, established by gifts from class members, is used for the purchase of books and periodicals for the College's library.

## Class of 1977 Book Fund

The income from this fund, established by gifts from class members, is used for the purchase of books and periodicals for the College's library.

## Achsah Mead and Benjamin F. Crawford Memorial Fund

The income from this fund, established by family members in memory of the parents of Arthur Mead Crawford, Class of 1934, and Achsah Ruth Crawford Amrien, Class of 1935, and Betty Patterson, is used to purchase books for the College's library.

## John Raymond Crawford Fund

The income from this fund, established Dr. and Mrs. William H. Crawford in memory of their son, is used for the purchase of books for the library.

## Lucy Pearl Crawford Fund

The income from this fund, established by Dr. and Mrs. William H. Crawford and Dr. J. R. Crawford in memory of their daughter and sister, is used for the purchase of books for the library

## Professor Robert Leroy Crispin Book Fund

The income from this fund, established by friends and colleagues in 1982 to honor Professor Crispin, is used to purchase books related to German literature for the library.

## William Davis Memorial Fund

The income from this fund, established by Henry L. Davis, Class of 1867, in memory of his father, William Davis, is used to purchase books for the College's library.

Lewis J. Dundon, Class of 1916, and Lewis J. Dundon, Jr., Class of 1943, Memorial Book Fund
The income from this fund, established by Mrs. Lewis J. Dundon and Mrs. Clement A. Furey, Jr. (Martha Dundon, Class of 1947), is used for the purchase of books related to American military topics.

## Lucy Prindle Foote Fund

The income from this fund, established by Lucy P. Foote, is used to purchase books for the College's library.

## Katherine R. Fowler, Class of 1915, Fund

The income from this fund is used to purchase materials related to mathematics for the College's library.

## Eleanor BeIden Hulings Gatling Library Fund

The income from this fund, established by John W. Gatling in memory of his wife, is used for the purchase of books for the library.

## Edith Anna Griswold, Class of 1900, Memorial Fund

The income from this fund, established through a bequest from George Selby Griswold in memory of his wife, is used to purchase books on religious study for the library.

## Jonathon Vernon L. Hamnett, Class of 1839, Memorial Fund

The income from this fund, established by Kay S. McDowell in memory of Jonathan Hamnett, Class of 1939, is used to purchase books for the College's library.

## Wallace W. Hanson, Class of 1943, Memorial Fund

The income from this fund, established by Ruth A. Hanson, Class of 1944, and sons Dean and William in memory of their husband and father, is used for the purchase of books for the library.

## Clarence R. Henderson, Class of 1950, Memorial Fund

The income from this fund, established by Josephine Henderson, Class of 1881 , in memory of her brother, is used for the purchase of books for the library.

## George M. Henderson, Class of 1950, Memorial Fund

The income from this fund, established by friends and family in memory of George M. Henderson, Class of 1950, is used for the purchase of books related to English literature and literary criticism.

## Benjamin A., Class of 1893, and Louis Clair, Class of 1900,

## Heydrick Memorial Fund

The income from this fund, established through a bequest of Mary T.B. Heydrick, Class of 1902, is used to purchase books for the College's library.

## Howe Library Fund

The income from this fund, established by Robert J. Howe, Class of 1939, and Timothy R. Howe, Class of 1969, is used to purchase materials
for the College's library, preferably on economics and related topics.

## Annamary Irons Book Fund

The income from this fund, established through a bequest of Annamary Ballinger Irons, Class of 1939, is used to purchase books for the College's library.

## Walter Jacobson '37 Book Fund

The income from this fund, established by long time friend and supporter, Walter Jacobson, Class of 1937, is used to purchase subscriptions to Asian journals and books.

## Robert L. Kirkpatrick '28 Book Fund

The income from this fund, established by the children of Robert L. Kirkpatrick, Sr., Class of 1928, is used to purchase books for the College's library.

## Dr. Paul A. Knights Book Fund

The income from this fund, established by friends and family in memory of Paul A. Knights, a history professor at Allegheny for many years, is used for the purchase of books for the library.

Horace T., Class of 1912, and Gertrude, Class of 1911, Lavely Memorial Fund
The income from this fund, established by the family and friends of Professor and Mrs. Lavely, is used to purchase books in accordance with Professor Lavely's interests: first in the fields of religion and philosophy; then in the areas of world affairs, operatic and symphonic music, and sports.

## Belle Chase Layng, Class of 1901, Fund

The income from this fund is used to purchase books for the College's library.

## Charles F. Lewis, Class of 1909, Memorial Fund

The income from this fund, established by Robert S. Waters, is used to purchase books for the library.

## Dieter P. Lotze Book Fund

The income from this fund, established by the friends and family of Dieter P. Lotze, is used to purchase books in German and Hungarian literature for the College's library.

## Daniel C. Lund, Class of 1969, Memorial Fund

The income from this fund, established by friends and family of Daniel
C. Lund, Class of 1969, is used to purchase books for the library.

## Katherine A. McCune Fund

The income from this fund, established by Mrs. McCune in memory of her sister, Helen R. Adams, is used for the purchase of books for the library.

## Lynn Olin Mead, Class of 1881, Fund

The income from this fund, established by Martha S. Mead, Class of 1883, is used to purchase books for the library.

## Elmer O. Minnigh, Class of 1882, Memorial Fund

The income from this fund, established by Wendell E. Minnigh, Class of 1933, and his son, Joel D. Minnigh, Class of 1971, is used to purchase books for the College's library.

## Frederick B. Odell Memorial Fund

The income from this fund is used to purchase books for the College's library.

## Marietta Laffer Olson '27 Book Fund

The income from this fund, established by the family and friends of Marietta Laffer Olson, Class of 1927, is used to purchase literature and poetry books for the College's library.

## Elizabeth A. Parsons Memorial Book Fund

The income from this fund, established by friends and family of Elizabeth A. Parsons, is used to purchase books for the library.

## Reverend Howard Grant Parsons Memorial Fund

The income from this fund is used to purchase books for the College's library.

## President Lawrence Lee Pelletier Book Fund

The income from this fund, established by alumni and friends of the College in memory of Lawrence L. Pelletier, former President of the College, is used to buy books on American politics and government for the College's library.

## Louise C. Pelletier Book Fund

The income from this fund, established by Lawrence Lee Pelletier, Allegheny College President from 1955 1985, in memory of his wife, is used for the purchase of books for the library.

## Pope John XXIII Fund

The income from this fund is used to purchase materials in Roman Catholic history and theology for the College's library.

## Katherine A. Reynolds Fund

The income from this fund, established by friends and family of Katherine A. Reynolds, is used for the purchase of books for the library.
Julian Lenhart Ross, Class of 1923, and Carol Moodey Ross,
Class of 1928, Memorial Book Fund
The income from this fund, established by the family and friends of Carol Moodey Ross, Class of 1928, and Julian Lenhart Ross, Class of 1923, is used to purchase materials for the College's library.

## Nancy Warren Rylander, Class of 1949, Book Fund

The income from this fund, established by Gustave W. Rylander, Jr., Class of 1949, in memory of his wife, Nancy Warren Rylander, Class of 1949, is used to purchase books for the College's library.

## John Hinsdale Scheide Fund

The income from this fund, established by John Hinsdale Scheide, is used to purchase materials for the College's library. Preference will be given to materials on Abraham Lincoln; materials that illuminate Lincoln's life, his era and the Civil War; and materials related to Ida Tarbell.

## Dr. and Mrs. John Richie Schultz Memorial Fund

The income from this fund is used to purchase books for the College's library in the subject area of American literature.

## Professor Elizabeth Stadtlander Memorial Fund

The income from this fund, established by friends and family of Elizabeth Stadtlander, is used for the purchase of books for the library.

## Sundback Library of Chemistry

The income from this fund, established by Dr. Gideon Sundback, is used to provide a superior collection of books and periodicals in chemistry, physics, and mathematics, which is housed in the College's Sundback Library of Chemistry.

## Stanley and Annette Swartley Fund

The income from this fund, established through a bequest of Stanley Simpson Swartley, is used to purchase books for the library, including books in the topic areas of art, literature, and modern poetry.

## Charles N. Taft, Class of 1928, Memorial Fund

The income from this fund is used to purchase books for the College's library.

## Philip E. Tate, Class of 1900, Memorial Fund

The income from this fund, established by Mrs. Philip E. Tate, is used to purchase books for the library.

## Hattie Mae Thickstun, Class of 1902, Fund

The income from this fund, established by E. Lina Thickstun in memory of her daughter, Hattie Mae Thickstun, Class of 1902, is used to purchase books for the College's library.

## Arthur Webster Thompson, Class of 1897, Fund

The income from this fund, established by Mrs. Arthur W. Thompson in memory of her husband, is used for the purchase of books for the library.

## Captain Woodrow C. Thompson, Class of 1959, Memorial Fund

The income from this fund, established by friends and family of Captain Woodrow C. Thompson, Class of 1959, is used to purchase books for the library.

## Titus Miller Memorial Book Fund

The income from this fund, established by Harriet Titus, Class of 1923, Ruth Titus Miller, Class of 1921, and William Titus, Class of 1926, in memory of their sister, Nellie E. Titus, Class of 1924, is used annually for the purchase of books in English and history, according to the recommendations made by those departments.

## Georgia Roberts Tuttle Memorial Fund

The income from this fund, established by Arthur Tuttle, Alan Tuttle, and Carolyn Tuttle Borland, Class of 1957, in loving memory of their mother, Georgia Roberts Tuttle, Class of 1916, is used to purchase books, software and other documents for the College's library or other College learning resources facilities in the subject areas of American and English literature and other areas of special interest to Mrs. Tuttle.

## Lewis Walker Memorial Fund

The income from this fund, established by Mrs. Walker and friends, in memory of Lewis Walker, Class of 1877, is used to purchase materials related to the Civil War for the College's library, according to recommendations made by the History Department.

## Younger Fund

The income from this fund, established through a bequest of Paul H . Younger, Class of 1931, and Helen Walker Younger, Class of 1934, is used to purchase books for the College's library.

## Other Library Endowments

Other funds available for the support of the College library are:

## Allegheny Alumni Book Fund

The income from this fund, established by gifts from alumni and friends in recognition of others, is used for the purchase of books for the library.

## Charles A. and Anna Cloyde Brooks Memorial Book Fund

The income from this fund, established in memory of Charles A. and Anna Cloyde Brooks, is used to purchase books and periodicals for the College's library.

## Class of '40 Fiftieth Reunion Year Gift

The income from this fund, established by the Class of 1940 on the occasion of its 50th reunion, is used to help computerize the library's reference system, to make available continuing funds for later library enhancements, and to provide for the purchase of books and other library materials.

## Edward F. and Shirley Jane Dowd Memorial Fund

The income from this fund, established by the estate of Shirley Jane Dowd, Class of 1944, is used to purchase books for the College's library in memory of Edward and Shirley Dowd.

## Irene Klingener Selover Fund

The income from this fund, established through a bequest of Irene Klingener Selover in memory of her friend, Dr. Gideon Sundback, is used to replenish or increase the holdings of the Sundback Library of Chemistry.

## Buildings

The following list of the College buildings describes their use and indicates the year of their construction.

## Bentley Hall (1820)

Bears the name of the Reverend William Bentley, D.D., who gave his valuable library to the College. It houses administrative offices. The Bentley Tower contains a carillon, the gift of Gary M. Brost ' 74 and Willow Wilcox Brost '74. Bentley entered in the National Register of Historic Places on May 6, 1977.

## Ruter Hall (1853)

Named for the Reverend Martin Ruter, D.D., second president of the College. Home to the Department of Modern and Classical Languages and its classrooms, faculty offices and language lab. It is included in the National Register of Historic Places.

## Hulings Hall (1879)

Now part of the Brooks/Walker Complex. Erected by Mr. Marcus Hulings and citizens of Meadville, it was Allegheny's first dormitory for women. In addition to double and single rooms, it contains lounges and laundry facilities. It has been renovated many times over the years.

## Montgomery Gymnasium (1896-reconstructed in 1920)

Contains a gymnasium and dance studio and is used primarily for dance classes and performances.

## Newton Observatory (1901)

The gift of Mrs. Mary W. Newton, in memory of her husband, Captain D.C. Newton, who was once a student of the College. It contains a nineinch telescope. The Office of Safety \& Security is located here.

## Ford Memorial Chapel (1901-renovated in 1953)

The gift of Captain John B. Ford, in memory of his wife, Mary Bower Ford. The seating capacity of the chapel is 330 . Ford Chapel is the center of campus religious life and is used extensively for public lectures, recitals, dramatic performances, and college ceremonies. The building was partially renovated in the 1990s, including the restoration of its antique stained glass and replacement of the slate roof.

## Reis Hall (1902)

Enlarged and refurnished in 1931, renovated in 1979 and remodeled in 1998. The gift of William Edward Reis, Class of 1869 . The building served most effectively as the library of the College for 74 years until it was replaced by the Lawrence Lee Pelletier Library in 1976. It has been renovated to house the offices of the Dean of Students, the Allegheny Center for Experiential Learning (ACCEL) —which includes the Allegheny Leadership Program, Career Services, Community Service, and International Programs and Services-the Counseling Center, Residence Life, and the Office of Spiritual and Religious Life.

## Cochran Hall (1908)

A gift of Mrs. Sarah B. Cochran, the College's first woman trustee. Restored to its former elegance in 2005, Cochran Hall now houses the Patricia Bush Tippie Alumni Center. Development and Alumni Affairs offices are on the second floor.

## Carnegie Hall (1915-completely renovated in 1993)

Occupied by the Departments of Philosophy and Religious Studies, Psychology, and Women's Studies and houses their various classrooms, laboratories, a lecture hall, a computer lab, and faculty offices.

## Alden Hall (1915)

Named for Timothy Alden. Houses the Departments of Computer Science and Geology. In addition to well-equipped laboratories and lecture halls, the building contains the Walter M. Small Library and a map room that is a regional repository for topographical maps published by the United States Geological Survey.

## Odd Fellows Building (1926)

Acquired by the College in 2001, this building houses the English and Philosophy and Religious Studies departments, with their classrooms, faculty offices and other facilities. Printing Services is also located in this building.

## Arter Hall (1929)

Largely the gift of the late Frank A. Arter, Class of 1864. Contains a small theatre and offices and lecture rooms of the Department of History and the Department of Mathematics. Arter was the longtime home of the Department of Communication Arts, which moved into the Vukovich Center for Communication Arts in 2009.

## Caflisch Hall (1929)

A co-ed residence hall. Made possible in part by a gift of Mrs. Margaret E. Caflisch as a memorial to her husband, Jacob C. Caflisch. Single rooms, triples, and quads are provided, as well as a student lounge, a student laundry, and study rooms.

## Bousson Environmental Research Reserve (1934)

A 283-acre wooded tract located seven miles east of the campus and used for outdoor laboratory sessions by the Departments of Biology and Environmental Science.
Anna Cloyde Brooks Hall (1940-completely renovated in 1961)
Named in honor of Mrs. Charles A. Brooks of Pittsburgh. It is the central wing of a residence hall complex for women students and contains lounge areas, a recreation room, a dining room accommodating 400 students, a library and a balcony on the second floor. The Center for Political Participation opened its offices in the former alumni rooms in 2001.

## Walker Hall (1941)

Named in memory of Colonel Lewis Walker, a graduate of the Class of 1877 and a generous, devoted friend of the College. It is the north wing of a residence hall complex for women students and contains student lounges and laundry facilities. In 1962 Walker Hall was enlarged by the addition of Walker Annex.

## The Andrew Wells Robertson Athletic Complex (1949)

Named for Mr. Andrew Wells Robertson, benefactor of the College and for many years a member of the Board of Trustees. This 80-acre area contains a steel and brick stadium. It has eight athletic fields that service
football, baseball, soccer, track, field hockey, softball, lacrosse, rugby and intramural sports. An additional 102 acres of wooded area contains beautiful ravines, cross country ski and walking trails, a challenge course, and a picnic shelter. A facility containing six locker rooms, training and equipment rooms, coaches/officials' rooms and public restrooms was constructed in 1986. Twelve lighted tennis courts were constructed in 1996. In fall 2006, Allegheny completed a major modernization and renovation of its Robertson Athletic Complex to include a new eightlane competition track, a FieldTurf playing surface, scoreboard and lights. The renovated field was named in honor of Frank Fuhrer '48, whose lead gift of $\$ 1$ million, along with donations by numerous other alumni and friends, made the renovations possible.

## Baldwin Hall (1953)

A residence hall named for Mr. Ernest E. Baldwin, whose bequest, along with gifts from friends of the College, made possible the construction of this building. The co-ed hall includes student lounges and laundry facilities. A north wing was added in 1979 and contains additional rooms and a study lounge.

## Lewis P. Quigley Hall (1953)

Named for Mr. Lewis P. Quigley. Given in part by his daughter, Mrs. Adelaide Gibson, and in part by other friends of the College. This building houses the Departments of Economics and Political Science with the corresponding faculty offices. It contains classrooms, a lecture hall, computer labs, and a lounge.

## Schultz Hall (1960)

A residence hall that includes attractive lounge areas and a banquet hall with a capacity of 450 . The Harry C. Winslow Health Center and the Office of Financial Services are located in this building. In 1992, the building was dedicated to John Richie Schultz, former professor of English, dean of men, and fourteenth president of the College.

## Murray Hall (1961)

Made possible by the gift of Maud Murray. This building was renovated in 1998 to house the College Computer Center.
Carr Hall of Science (1964, completely renovated in 1995)
Named for Mr. Ossian E. Carr, Class of 1900, whose gift, along with the gifts of others, made possible the construction of this science building. It houses the Departments of Physics and Environmental Science, with the appropriate classrooms and laboratories, and is also used by the Department of Chemistry for introductory classes. Carr contains the Sundback Library, the Kaufman Lecture Hall, the Wible Planetarium, and certain research facilities. Made possible by the generosity and interest of Dr. Gideon Sundback, the Sundback Library houses the reference collections for chemistry, physics, and mathematics. Construction on the Richard J. Cook Center for Environmental Science is expected to be completed by Fall 2012.

## Crawford Hall (1964)

A men's residence hall named for the late president William H. Crawford. It has lounges, a laundry room, and study rooms.

## Delta Tau Delta Fraternity House (1966, renovated in 1996)

Financed jointly by the fraternity and the College.

## Ravine-Narvik Hall (1966)

A three-section residence hall that includes double rooms, study rooms, and lounges. Narvik Hall is a gift of E. M. Arentzen and is named for his hometown in Norway.

## Maintenance Building (1967)

Houses the offices and shops of the Physical Plant Department.
Edwards House (1969, completely renovated in 1991)
A co-ed residence hall for upperclass students and named in honor of Dr. Allen B. Edwards at the completion of his 25 years of service to Allegheny. A gift from Mr. and Mrs. George M. Henderson, Class of 1950, helped to make the building possible. Edwards has single rooms, suites, and accommodations for handicapped students, as well as lounges, a kitchenette, a laundry facility, and a study room.

## Richard King Mellon Recreation Building (1969)

A gift of General and Mrs. R.K. Mellon. It includes a swimming pool, diving well, six hand-ball and squash courts, and faculty offices. The pool area accommodates 500 spectators.

## The Fine-Arts Campus Center (1971)

A fine arts and recreation center encompassing the following:

## Arnold Hall for Music

A gift from the estate of Ella Arnold, contains the faculty offices for the Department of Music, laboratory rooms, and practice rooms for individuals and groups.

## Doane Hall of Art

A gift from the estate of Foster B. Doane, Class of 1917, includes the Bowman, Megahan, and Penelec Art Galleries, darkrooms, ceramics facilities, a classroom and a seminar room, studios, and provision for secure storage of works of art. Renovations began in 2005 and include dividing the current studio space into four separate studio classrooms and creating a wireless technology hub and centralized social space to encourage interaction between students and faculty members.

## Shafer Auditorium

Named for Governor Raymond P. Shafer, Class of 1938, the 39th governor of Pennsylvania, and president of the College from 1985 to 1986. The auditorium seats 1,750 . Provision for this facility was assisted substantially by a gift from the Western Pennsylvania Conference of the United Methodist Church.

## George M. Henderson Campus Center

Includes McKinley's food court, a cultural center, student organization offices, lounges, the radio station, campus bookstore, post office, Diversity Affairs, conference rooms, a game room and Grounds for Change Coffeehouse. This facility is named in honor of George M. Henderson, Class of 1950 and trustee of the College from 1965 to 1978.

## Lawrence Lee Pelletier Library (1976)

Renovated in 2007, the library's main floor houses a computer classroom, study and collaborative work spaces, a café, a digital multimedia development suite, library services, and the Learning Commons. The Learning Commons can assist students at any stage of their college careers with developing research, writing, presentation, study, and computing skills. The library's other two floors provide quiet study spaces and house a collection of books, journals, and videos that exceeds 922,000 volumes. Additional science-related collections are housed in Carr and Alden Halls

The library also provides Allegheny students with 24/7 access to electronic resources, including more than 16,500 online journals. Any materials not immediately available in the library's print or online
collections can be borrowed through library services from other institutions in Pennsylvania and, if necessary, worldwide.

The Special Collections area, located on the upper floor, was renovated and expanded in 2007 to include the Wayne \& Sally Merrick Historic Archival Center. Special Collections include the College's original library, collected by Timothy Alden during the College's early years; the Ida M. Tarbell Collection; and other notable manuscript and book collections. The library is a depository for United States and Pennsylvania documents. All Library collections are available for students' use.

## Steffee Hall of Life Sciences (1993)

Financed substantially by a gift from Arthur D. Steffee '56 and William P. Steffee '57. It is a 55,000 square foot building that is connected to Doane Hall of Chemistry. Facilities within Steffee Hall include faculty offices and laboratories for the Departments of Biology and Environmental Science, a greenhouse, research laboratories for students, a computer classroom, a seminar room, teaching laboratories, preparation rooms, and study lounges.

## Doane Hall of Chemistry (1993)

Financed substantially by a gift from Foster B. Doane, Class of 1917, through the estate of his wife, Sandra Doane Turk. The 29,100 square foot building contains faculty offices and laboratories, seminar rooms, separate laboratories for physical, bioorganic, organic trace, and inorganic trace chemistry, research laboratories, preparation rooms, and equipment rooms.

## Phi Kappa Psi Fraternity House (1995)

Financed by the College.

## David V. Wise Sport and Fitness Center (1997)

A sports facility with a multi-purpose sports forum, a 210 -meter jogging track and a performance arena that seats 960 . The Center also features modern facilities for basketball, volleyball, and tennis, as well as personal fitness activities such as aerobics, jogging, stationary bicycling and weight lifting. It is connected to the Mellon Recreation Building.
Construction of the Center was made possible by a leadership gift from David V. Wise '53 and his wife Karen '69 of Butler, Pennsylvania.

## College Court Residence Hall (1997)

Features three townhouse-style buildings housing a total of 77 students. All living areas are suites, with four single bedrooms sharing a common living room and kitchen facilities.

## North Village (2006)

The three townhouses that make up North Village are two-story units with a residential neighborhood look and feel. The three buildings include a total of 106 single bedrooms. Each suite of five bedrooms includes a shared living room, two full baths, and full kitchen facilities. North Village was designed to meet LEED (Leadership in Energy and Environmental Design) standards for promoting sustainable design in the building industry.

## Vukovich Center for Communication Arts (2008)

Named in honor of Allegheny trustee emeritus Robert A. Vukovich '65 and his wife, Laura, who made the largest gift in the College's history. A portion of their gift, as well as support from several other generous donors, including the Eden Hall Foundation and the Commonwealth of Pennsylvania, funded the center. The 40,000-square-foot facility, designed by world-renowned architectural firm Polshek Partnership, was created for teaching theatre, communications and related disciplines. It
includes the Gladys Mullenix Black '54 Theatre, a 250 -seat theater for hosting performances and public events, the Barbara Robinson '48 Green Room, the Dorothy Brennen Miller '39 Lobby, rehearsal and instructional spaces, technologically advanced video production facilities, the Lee and Sue O'Connor Idleman '55 Production Wing, and related support spaces including faculty offices, dressing rooms, and scene and costume shops. In keeping with the College's commitment to environmental sustainability, the center was built into a hillside to increase its energy efficiency, includes expansive windows and skylights that provide passive solar heating and lighting, and features a rooftop garden, Laura's Garden Terrace, which provides insulation and absorbs rainwater.

## 454 House (2009)

A complete renovation and 6,600-square-foot expansion of the building at 454 North Main Street, supported by gifts from Bob Woodworth '69 and Joyce Woodworth; Gary Brost '74 and Willow (Wilcox) Brost '74; and estate gifts from Margaret L. Barkley and others. Home to the Admissions Office, the campus welcome center features geo-exchange heating and cooling, high-output compact fluorescent lighting, waterless urinals, recycled-content building materials, Forest Stewardship Council-certified wood, permeable parking spaces and rain gardens to handle storm-water runoff.

## Founders House in Honor of Richard J. Cook and Teresa M. Lahti (2009)

Located at 908 Diamond Park, the property was once home to the log courthouse where Allegheny College and the Meadville Chamber of Commerce were founded. While the original courthouse no longer exists, the newly renovated home at the site serves as a symbol of the strong bonds between the community and the College. It houses the offices of the Chamber as well as the College's community engagement programs and provides working and meeting space for students, faculty and community partners. It also includes a residence and working space for fifth-year interns and AmeriCorps VISTA members. Financial support for the purchase and renovation of the Founders House was provided by Allegheny trustee Christine Scott Nelson '73, Jack '42 and Teen Corey, Henry B. Suhr, Jr. '55 and Beverly Suhr, the Commonwealth of Pennsylvania, and others.

## North Village II (2010)

This four-story residence hall offers apartment-style living and includes a total of 230 single bedrooms. North Village II features both two- and four-bedroom suites, each providing a common area as well as kitchen and bath facilities. An attractive courtyard on the east and entranceway on the west connect the residence hall to the rest of campus. Constructed with sustainability in mind, North Village II was built to LEED (Leadership in Energy and Environmental Design) Silver certification standards. The facility's heating and cooling system are fed by 50 on-site geothermal wells.

## History of the College

A liberal arts education in colonial America was a privilege enjoyed by few individuals. The nine colleges that existed prior to the American Revolution did not mean to be popular institutions. But the Revolution altered this state of affairs, and as the floodgates opened to the rising democratic tide, numerous colleges and universities were chartered in the young republic. The westward movement, growing populations, increasing wealth, state loyalties, and denominational rivalries all played a part in the early expansion of American higher education.

Perhaps as many as 100 colleges tried and failed before the Civil War. Allegheny, founded in 1815, is one of the hardy survivors that testifies daily to the pioneer determination and vision of higher education in America.

## Foundation and Early Years

Allegheny is situated in Meadville, Pennsylvania, which was founded in 1788 in the French Creek Valley, astride the route traversed by George Washington on his journey to Fort LeBoeuf a generation earlier. When the College was established, Meadville was still a raw frontier town of about 400 settlers, of whom an unusually large number had come from Massachusetts and Connecticut. These pioneers had visions of great things for their isolated village, but none required greater imagination than their dream of a college that might bring the educational opportunities of New England to the frontier.

One of the citizens most dedicated to the project was Major Roger Alden, a Revolutionary War veteran who had fought from Lexington to Yorktown. He believed that a liberal arts education was the best way to equip individuals to meet with judgment and moral justice the problems they might be called to face in life; and he proposed the name of his kinsman, the Reverend Timothy Alden, as an individual well qualified for the task of organizing a new college. A Harvard graduate, the man selected to lead the new college was an intriguing blend of scholar, minister, antiquarian and pioneer.

Timothy Alden and his family arrived in Meadville in April 1815. Within two months the College was founded, and Alden was named its first president. He was also personally responsible for recruiting the first freshman class-among the four students who matriculated the following year were two of Alden's sons. Initially classes were held in Meadville's log courthouse and in Alden's home. Within half a dozen years, however, Alden had succeeded in attracting sufficient funds to begin building a campus, having travelled throughout the eastern states seeking support for a planned library and classroom building. John Adams headed the subscription list of donors from New England, where many of the leading families expressed an active interest in the College. Perhaps the most significant donations were the fine private libraries of Dr. William Bentley, Judge James Winthrop, and Isaiah Thomas. The 1823 library catalogue lists some 8,000 titles, a number of them unique today, making this collection one of the finest held by any of the early colleges. None other than Thomas Jefferson wrote to express his envy at the size and quality of the book collection and to express his hope that one day the University of Virginia might be so fortunate!

The need to properly house the library led to the construction of Bentley Hall in the 1820s, today a leading example of early American architecture. This handsome structure still crowns the hill on which the campus is located. Its harmonious proportions, balanced lines, and elegant columns give it a simple grandeur. For 10 years the people of Meadville gave generously of their time, money, and materials to add to
the contributions that Alden had collected in the East.
Despite such generous gifts, however, the first years were difficult ones. Both students and funds remained in short supply, and in vain the trustees turned for support to the Legislature of Pennsylvania and the Presbyterian Church, of which Alden was a minister. Over Alden's vigorous protests in the name of a classical liberal arts curriculum, the trustees even entertained a proposal to turn the College into a military academy in order to attract support. The plan was never implemented, but Alden nonetheless reluctantly resigned in 1831, by which time conditions had become so desperate that the College closed its doors for two years. Alden spent the remaining eight years of his life moving restlessly to Cincinnati and back to Pittsburgh. He undoubtedly died in the belief that he was a failure.

In truth, Alden's dedicated efforts to speed the building of Bentley Hall and his acquisition of Allegheny's excellent library were to provide the salvation of the College. In 1833 Allegheny reopened with the financial support of the Methodist Church, which was deeply interested in the cause of education.

## A New Beginning

The Methodists understood an important truth when they embraced Allegheny: For an institution of higher learning to become great, for it to endure the vicissitudes of social change and accommodate the evolution of knowledge-to be of service for centuries, not just years or decades-its faculty and students must be free to travel the path toward knowledge wherever it leads, unconstrained by the view of a particular faith. The Church insisted that Allegheny would be nonsectarian in its curriculum and in trustee decision-making, though at the same time deeply committed to building character according to Christian values and ideals.

The new President, the Reverend Martin Ruter, was an outstanding figure in his church and in the field of education. He inspired confidence and attracted new financial backing. When he departed for a mission in the Southwest four years later, the future of the College seemed secure. The second building, erected in 1853, was named in his honor.

In the period before the Civil War a critical feature of Allegheny's present-day character was formed, for the College's founders stressed from the beginning the importance of science and mathematics in a liberal education. Over half the courses were in science or mathematics.

The Civil War brought difficult times for all American colleges, including Allegheny. Almost all of the College's students went off to
war, and because there was significant enrollment from several southern states, Alleghenians fought for both the North and the South. Onethird of the Allegheny student body was killed during the war and another third wounded. Among those who fought was a future United States President, William McKinley, who had just begun his college career. Reconstituting the College after the war was a struggle, but it was accomplished, and Allegheny began to grow again in enrollment and financial resources.

In 1870, partly as a pragmatic response to a need for enrollment, but also because it believed that women should have access to the same form of higher education available to men, Allegheny opened its door to women. Those who opposed their admission-and there were somewere surely surprised at Commencement five years later, when the first and second honors went to women. In 1880 half the senior class officers were women, including the president.
One of the most prominent Alleghenians who graduated before the turn of the century was Ida M. Tarbell, Class of 1880, the well-known biographer of Lincoln and a leading "muckraker" in the campaign for social and economic reform of the early 1890 s. Tarbell's papers still attract researchers to the campus each year. Through the efforts of President Lucius H. Bugbee (1874-1882), Marcus Hulings, and other friends of the College, women students found a suitable home in Hulings Hall, which was built in 1879 and remodeled 60 years later to form the nucleus of the present Brooks Hall.

In 1876 the first College newspaper, The Campus, was published, followed in 1889 by the Kaldron yearbook and, seven years later, by the Literary Magazine, now published as the Allegheny Review. In 1891 Allegheny competed for the first time with athletics teams from other colleges.

## The Progressive Era

The coming of President William H. Crawford in 1893 began an era of unprecedented growth. During his 27 years as President, the College gained a national reputation and grew dramatically in size, as well as endowment. Within five years the faculty had doubled; and by the time Allegheny celebrated its 100th anniversary in 1915, the Observatory, the Chapel, Reis Library, Cochran Hall, Carnegie Hall, and Alden Hall had been built. Students' increasing interest in athletics led to the construction of Montgomery Gymnasium, and when Allegheny played its first intercollegiate basketball game, the sport itself was only five years old. The establishment in 1902 of a Phi Beta Kappa chapter testified to the growing strength of the academic program.

During World War I, many students and faculty left the campus for military service. The first contingent of the American Expeditionary Forces to land in France included several Alleghenians, while those who remained behind felt the impact of the war when a unit of the Students' Army Training Corps was established.

The academic reputation of the College and the present Allegheny campus owe much to Crawford's restless energy and dreams. The College continued to expand in the 1920s; by the end of the decade, Arter Hall, with its excellent Little Theatre, had been constructed; Caflisch Hall was built to house freshmen; and Reis Library had been enlarged.

Yet the 1920 s ended on an ominous note, as the national Depression worsened. Educators everywhere feared that enrollment would drop precipitously. The ambitious building program of the 1920s had left the College in a vulnerable financial situation. Moreover, the arrival of the new president, William P. Tolley, in 1931, gave Allegheny the distinction of having the youngest college president in the country. Many must have
wondered if youth and enthusiasm would suffice in guiding the College through troubled times.

Fortunately, Allegheny survived and even grew during the 1930s. Imaginative and determined recruiting efforts helped to increase enrollment, as did the College's vigorous efforts to keep students in school by providing part-time jobs. In 1934, 48 percent of Allegheny's student body were earning all or part of their college expenses.

Although weathering the Depression was a demanding task, the quality of education and student life at Allegheny remained the primary concern of the administration and the faculty. Subsidized athletics were phased out of existence and replaced by an amateur athletic policy and an extensive intramural program. Bousson Camp, a 283 -acre tract, provided students with additional recreational facilities, as well as a field laboratory for biology classes. Allegheny's curriculum took on a more progressive tone in keeping with the most promising ideas that emerged from Harvard, the University of Chicago, and other respected centers of educational theory.

While the 1930s had been challenging for the College, the 1940s also presented difficulties. America's entry into World War II presented Allegheny and many other colleges with enrollment problems that were even more serious than those during the Depression. The resignation of President Tolley in October 1942 added to the College's concerns, and the Dean of Men, John R. Schultz, took over as president while the search for Tolley's successor proceeded.

The loss of many Allegheny men to the service was successfully offset by the admission of more women to the College and the inauguration of a Pre-flight Program under the auspices of the Army Air Corps. The completion of Brooks Hall (1940) and Walker Hall (1941) made it possible to admit more women students. In addition to their regular course loads, members of the faculty instructed the Pre-flight trainees in the summer and during evenings.

## Building on a Progressive Tradition

The post-war years brought striking changes to the College. Many veterans pursued college degrees with the help of the G.I. Bill, and a new seriousness characterized the atmosphere "on the hill." During Louis T. Benezet's administration in 1948, a building drive resulted in the construction of three new buildings-Baldwin Hall (1953), Quigley Hall (1953), and the David Mead Field House (1954) —as well as completion of Robertson Athletic Field (1949). Allegheny's curriculum underwent significant changes when the concept of general education courses was implemented.

In 1955, following Benezet's resignation, the Board of Trustees named Lawrence L. Pelletier the 16th president of the College. Pelletier's administration was notable in many respects. During his presidency, the traditional liberal arts curriculum was strengthened, and faculty and students were allowed flexibility to experiment. Perhaps even more significant was the continual strengthening of the faculty.

The largest building campaign in Allegheny's history was accomplished during the Pelletier years. South Hall (later re-named Schultz Hall), Crawford Hall, Ravine-Narvik Hall and Edwards House were built to house the growing student body. Murray Hall, Carr Hall of Science, the Maintenance Building and the Mellon Recreational Building were also added to the campus.

In the summer of 1971, the College occupied a new student center and fine arts building housing the departments of art and music, an auditorium seating 1,700, three art galleries, offices and meeting rooms for student
groups and organizations, recreation facilities, and a dining room. In 1976 the Lawrence Lee Pelletier Library replaced Reis Library, which now, as Reis Hall, houses the Dean of Students' offices, including the Allegheny College Center for Experiential Learning (ACCEL).

The student body has played an important role in the evolution of the College and they have acquired a greater voice in the administration of the College, as well as the responsibility of upholding the Honor Code enacted in 1960. Allegheny has always been a competitive institution noted for the quality of its student body. The growing diversity of the College community serves to strengthen its commitment to excellence.

Like students everywhere, many Alleghenians were deeply troubled by the Vietnam War. But while many colleges and universities experienced tragic violence and debilitating ideological conflicts, the Allegheny community was able to debate tense issues creatively. The President's door remained open; and the dialogue among the faculty, students and administration averted much of the damage and estrangement that occurred elsewhere.

In 1980 Pelletier was succeeded in the Presidency by David Baily Harned. Under Harned's leadership, the College began the most ambitious capital campaign in its history, with a goal of $\$ 20$ million. These efforts resulted in significant improvements in faculty compensation and in financial aid for students. The College also added new degree programs in computer science and environmental studies, and initiated new study-abroad programs.

Raymond Philip Shafer '38, former governor of Pennsylvania and longtime member and former chairman of the Board of Trustees, became the acting president during the summer of 1985, after Harned's resignation. Under his stewardship, the College completed an important strategic planning process and the capital campaign begun during the Harned years. To honor his many years of exceptional service to Allegheny, Governor Shafer was officially elected Allegheny's 18th president at the end of his interim year.

In the meantime, the Board elected Daniel F. Sullivan to be Allegheny's 19th President, and he took office in August 1986. An enriched curriculum was implemented in 1990 and streamlined five years later, combining the new Liberal Studies Program with the traditional strengths of the Allegheny major and the Senior Project. Other courses and majors were comprehensively modernized.

Construction of a $\$ 14.5$-million science complex was completed in 1993. The project was funded out of Allegheny's Building for New Generations campaign. Steffee Hall of Life Sciences and Doane Hall of Chemistry serve as national models for undergraduate science facilities. The complex represents a giant step forward in a comprehensive program of facilities planning, maintenance, and construction, as well as campus beautification, that also comprises residential facilities and athletics and recreation facilities. The $\$ 13$-million David V. Wise Sport and Fitness Center and the College Court residential complex opened in the fall of 1997.

Throughout the 1980s and 1990s, notable advances were made in out-of-class programming, such as lectures, concerts, and theatrical performances, and in conducting one of the nation's most successful athletics programs from both a teaching and a won-lost standpoint. Allegheny's commitment to recruiting and serving a diverse student body-racially, economically, culturally, and otherwise-was reaffirmed as well.

## Entering a New Century

Allegheny's 20th president, Richard J. Cook, took office in August 1996. New forms of outreach to the Meadville community became an early hallmark of the Cook administration. New Century Connections, a set of basic planning principles designed to guide the College's development from 1998 though 2003, affirmed Allegheny's commitment to its historical purpose and identity while outlining core strategies and related initiatives that adapt the traditional strengths of a liberal arts curriculum to the changing needs of students and the new world that they will help create.

In 2002, Allegheny launched a $\$ 105$ million comprehensive fundraising campaign to support strategic plan initiatives. By the end of the campaign in June 2006, the original fund-raising goal was exceeded by more than $\$ 10$ million.

Building on the success of New Century Connections, the College unveiled a new strategic plan, Tradition $\mathcal{E}$ Transformation: Allegheny College 2010, in October 2003. This most recent plan proposes further enhancements to academic programs, scholarship support, learning environments, residence halls and common areas, experiential learning opportunities, and programs contributing to diversity.

As one part of these initiatives, the College is undertaking $\$ 30$ million worth of renovations and new contruction over the next eight years. Renovations to the Campus Center were completed in 2004, revitalizing the center as a hub of campus activity with new homes for the bookstore, post office, and radio station. In 2005 the creation of the Patricia Bush Tippie Alumni Center restored Cochran Hall to its former elegance. Other major construction projects include renovations to the Doane Hall of Art and the development of the North Village, a set of townhouse-style apartments that opened in fall 2006. A major modernization of the Robertson Athletic Complex-including a new eight-lane competition track, a FieldTurf playing surface, scoreboard and lights-was also completed in 2006.

Major renovations to Pelletier Library enhanced the Learning Commons, a resource center encompassing academic support ranging from peer-to-peer tutoring to assistance from professional staff.
James H. Mullen, Jr. became the 21st president of Allegheny College in 2008, elected unanimously by the Allegheny Board of Trustees on the unanimous recommendation of the Presidential Search Committee. Mullen is a scholar of the American presidency who has taught history, public policy, and political science. With 20 years of experience in leadership roles in higher education, and a keen appreciation for Allegheny's history and traditions, he continues the work of earlier presidents in building community while at the same time enhancing the College's reputation as one of the nation's preeminent colleges of the liberal arts and sciences.

During Mullen's first year in office, we saw the opening of the Vukovich Center for the Communication Arts, designed by the worldrenowned architectural firm Polshek Partnership, the 454 House, new home of the Admissions Office, and the Founders House in honor of Richard J. Cook and Teresa M. Lahti.

Today, as the College prepares to begin its third century, Alleghenians are just as confident as the founders were that the College can equip young people to meet with sound judgment and moral justice the challenges they might be called on to face in life.

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B.A., Pahlavi University, 1972, M.A., Hood College, 1976; Ph.D., West Virginia University, 1985. Assistant Professor, 1985-92; Associate Professor, 1992-.

## Mark Ams

Assistant Professor of Chemistry
B.A., Albion College, 2002; Ph.D., University of Pittsburgh, 2007.

Assistant Professor, 2009-.

## Courtney Bailey

Associate Professor of Communication Arts
B.S.C., Ohio University, 1998; M.A., Ph.D., Indiana University, 2004. Assistant Professor, 2004-11; Associate Professor, 2011-.

## Christopher Bakken

Associate Professor of English
B.A., University of Wisconsin, Madison, 1990; M.F.A., Columbia University, 1992; Ph.D., The University of Houston, 1999. Assistant Professor, 2000-07; Associate Professor, 2007- .

## Michael J. Barry

Professor of Mathematics
B.A., University College, Dublin, 1971; M.A., 1972; M.S., University of Notre Dame, 1975; Ph.D., 1977. Associate Professor, 1987-96; Professor, 1996.

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Associate Professor of Economics
B.S., Lehigh University, 1979; M.S., Purdue University, 1981; Ph.D., Lehigh University, 1988. Assistant Professor, 1987-94; Associate Professor, 1994-.

## Terrence Gerard Bensel

Professor of Environmental Science
B.A., University of Northern Colorado, 1983; M.A., University of New Hampshire, 1990; Ph.D., 1994. Assistant Professor, 1994-2001; Associate Professor, 2001-09; Professor, 2009-.

## Ronald Bernstein-Goff

Visiting Assistant Professor of Religious Studies
B.A., University of Cincinatti, 1960; Rabbinical Ordination, Hebrew Union College, Cincinatti, 1965; M.A., Sangamon State University, 1982; D.D., Hebrew Union College, Cincinatti, 1977. Visiting Assistant Professor, 2009-.

## Ian Binnington

Assistant Professor of History
B.A., Lancaster University, 1993; M.A., University of Cincinatti, 1996; Ph.D., University of Illinois at Urbana-Champaign, 2004. Assistant Professor, 2006-.

## Richard Drew Bowden

Professor of Environmental Science (on Sabbatic, 2011-12)
B.A., Northland College, 1978; M.S., Michigan Technical University, 1981; M.S., M.Phil., Ph.D., Yale University, 1987. Assistant Professor, 1990-97; Associate Professor, 1997-2006; Professor, 2006-.

## Eric E. Boynton

Associate Professor of Philosophy/Religious Studies
B.A., University of Redlands, 1993; M.A., Vanderbilt University, 1995; Ph.D., Rice University, 2004. Assistant Professor, 2002-09; Associate Professor, 2009-.

## River Branch

Assistant Professor of Communication Arts
B.A., Kenyon, 1990; M.A., M.F.A., University of Iowa, 2005. Assistant Professor, 2006-.

## Sylvia Sue Buck

Professor of Art
B.F.A., Ohio University, 1971; M.F.A., Maryland Institute College of Art, 1977. Assistant Professor, 1993-2000; Associate Professor, 2000-07; Professor, 2007-.

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Henry B. and Patricia Bush Tippie Professor of English
B.A., Cornell University, 1969; M.A., University of Wales at Aberystwyth, 1972; Ph.D., Yale University, 1976. Assistant Professor, 1976-84, Associate Professor, 1984-90; National Endowment for the Humanities Chair, 1988-91; Professor, 1990-; Dean of the College, 1993-96; Acting President, 1996.

## William Bywater, Jr.

Professor of Philosophy, Senior Faculty in Women's Studies
B.A., Lehigh University, 1962; M.A., University of Michigan, 1966;

Ph.D., 1969; M.A., Edinboro State College, 1982. Instructor in Philosophy, 1967-70; Assistant Professor, 1970-74; Associate Professor, 1974-
86; Professor, 1986-.

## M. Soledad Caballero

Associate Professor of English
B.A., Appalachian State University; M.A., Tufts University, 1996; Ph.D., 2002. Assistant Professor, 2002-10; Associate Professor, 2010-.

## Zachary Callen

Assistant Professor of Political Science
B.A., Illinois State University, 2001; M.S., 2003; M.A., University of Chicago, 2005; Ph.D., 2009. Assistant Professor of Political Science, 2011-.

## Terra A. Caputo

Assistant Professor of English and Director of the Writing Center
B.A., Allegheny College, 2003; M.A., University of Miami, 2008.

Visiting Assistant Professor of English, 2008-10; Assistant Professor of English and Director of the Writing Center, 2010-.

## Amelia J. Carr

Associate Professor of Art, Senior Faculty in Women's Studies
B.A., Ohio State University, 1976; Ph.D., Northwestern University, 1984.

Assistant Professor, 1987-94; Associate Professor, 1994-.

## Brent Carswell

Associate Professor of Mathematics
B.A., Potsdam College, SUNY, 1992; M.A., Potsdam College, SUNY,

1992; Ph.D., University of Albany, SUNY, 1999. Assistant Professor, 2004-09; Associate Professor, 2009-.

## Stephen Dale Casler

Professor of Economics
B.A., University of Massachusetts, 1977; M.S., University of Illinois, 1979; Ph.D., 1983. Assistant Professor, 1981-88; Associate Professor, 198894; Professor, 1995-.

## Alec Fu-Lik Chien

Professor of Music, Artist-in-Residence
B.M., The Juilliard School, 1975; M.M., 1976; D.M.A., 1980. Assistant Professor, 1980-86; Associate Professor, 1986-92; Artist-in-Residence, 1986-; Professor, 1992-.

## Rodney Dexter Clark

Associate Professor of Psychology
B.A., California State University (Long Beach), 1980; M.A., Western Michigan University, 1988; Ph.D., 1990. Assistant Professor, 1990-97; Associate Professor, 1997-.

## Matt T. Clay

Assistant Professor of Mathematics
B.S., University of Oregon, 2001; M.S., University of Utah, 2003; Ph.D., University of Utah, 2006. Assistant Professor, 2009-.

## Lee Coates

Associate Professor of Biology
B.A., University of Montana; Ph.D., University of New Mexico, 1989.

Assistant Professor, 1992-2000; Associate Professor, 2000-.

## Kim Coddington

Visiting Assistant Professor of Psychology
B.A., Nyack College, 1989; M.A., Edinboro University, 1994; Ph.D., Gannon University, 2006. Visiting Assistant Professor of Psychology. 2011-.

## Catharina Coenen

Associate Professor of Biology
Vordiplom Universität Bremen (Germany); Ph.D., Oregon State University, 1996. Assistant Professor, 1999-2006; Associate Professor, 2006-.

## Ronald B. Cole

Professor of Geology (on Sabbatic, Spring, 2012)
B.S., Allegheny College, 1987; M.S., University of Rochester, 1990;

Ph.D., 1993. Assistant Professor, 1994-2000; Associate Professor, 2000-
11; Professor 2011-.

## Sarah M. Conklin

Assistant Professor of Psychology
B.A., Edinboro University of Pennsylvania, 1999; M.S., University of New Orleans, 2002; Ph.D., Baylor University, 2005. Assistant Professor, 2007-.

## Caley Cook

Visiting Assistant Professor of English and Communication Arts B.A., University of San Diego, 2002; M.A., University of Southern California, 2007. Visiting Assistant Professor of English and Communication Arts, 2010-.

## Mark Cosdon

Associate Professor of Communication Arts
B.A., Colby College, 1989; M.A., Ph.D., Tufts University, 2001.

Assistant Professor, 2002-09; Associate Professor, 2009-.

## Jeffrey D. Cross

Professor of Psychology
B.A., Allegheny College, 1973; M.A., West Virginia University, 1977;

Ph.D., 1981. Assistant Professor, 1980-88; Associate Professor, 1988-95;
Professor, 1995-.

## Daniel Crozier

Associate Professor of Communication Arts
B.A., St. Mary's College (Minnesota), 1979; M.F.A., University of Wisconsin (Madison), 1997. Assistant Professor, 1998-2005; Associate Professor, 2005-.

## Robert Dean Cupper

Professor of Computer Science and Economics
B.S., Juniata College, 1964; Ph.D., University of Pittsburgh, 1974. Assistant Professor, 1977-81; Associate Professor, 1981-88; Professor, 1988-.

## Diane R. D'Amico

Professor of English
B.A., Merrimack College, 1973; M.A., Villanova University, 1975;

Ph.D., University of Wisconsin, 1980. Assistant Professor, 1983-91;
Associate Professor, 1991-99; Holder of National Endowment for Humanities Chair, 1994-97; Professor, 1999-.

## Verónica Dantán

Visiting Assistant Professor of Modern and Classical Languages
B.A., Claremont, 1988; M.A., University of Wisconsin at Madison, 1996. Visiting Assistant Professor, 2007-

## Kate J. Darby

Assistant Professor of Environmental Science
B.S., The Pennsylvania State Universdity, 2000; M.S., University of Oregon, 2005; Ph.D., Arizona State University, 2010. Visiting Assistant Professor, 2010-11; Assistant Professor, 2011-.

## Jennifer L. Dearden

Assistant Professor of Music
B.M., Ithaca College, 2001; M.M., Florida State University, 2003; D.M.A., University of North Texas. Assistant Professor, 2007-.

## Alice A. Deckert

Associate Professor of Chemistry
B.S., Bethel College, 1984; Ph.D., Stanford University, 1989. Assistant Professor, 1997-04; Associate Professor, 2004-.

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Professor of Psychology
B.A., Oakland University, 1968; M.S., University of Massachusetts, 1970; Ph.D., 1972. Assistant Professor, 1972-80; Associate Professor, 1980-88; Acting Director of Project 101, 1985-87, Director of the Educational Enhancement Program, 1987-89; Professor, 1988-.

## Linda C. DeMeritt

Dean of the College, Professor of Modern and Classical Languages B.A., Michigan State University, 1975; M.A., University of Illinois, 1977; Ph.D., Michigan State University, 1982. Assistant Professor, 1982-89; Associate Professor, 1989-96; Professor, 1996-; Holder of National Endowment for Humanities Chair, 1997-2000, Dean of the College, 2003-.

## Deborah L. Dickey

Associate Professor of Psychology and Women's Studies (on Sabbatic, Fall, 2011)
B.A., The Pennsylvania State University, 1972; M.S., University of

Pittsburgh, 1976. Instructor, 1988-2002, Assistant Professor, 2002-09; Associate Professor, 2009-.

## Christine M. Donmoyer

Visiting Assistant Professor of Biology
B.A., Elizabethtown College, 1995; Ph.D., Vanderbilt University, 2001.

Visiting Assistant Professor of Biology, 2010-.

## Thomas D. Eatmon, Jr.

Assistant Professor of Environmental Science
B.S., North Carolina State University, 2002; M.Ed., University of St.

Thomas, 2004; Ph.D., Southern University, 2008. Visiting Scholar, 200708; Visiting Assistant Professor, 2008-09; Assistant Professor, 2009-.

## Harald Ellers

Associate Professor of Mathematics
B.S., University of Toronto, 1984; Ph.D., University of Illinois, 1989.

Visiting Associate Professor, 2004-05; Associate Professor, 2006-.

## Peter Ensberg

Professor of Modern Languages (on Sabbatic, Spring, 2012)
B.A., Universität Köln, 1981; M.A., Universität Trier, 1985; Ph.D., Johannes Gutenberg - Universität Mainz, 1988. Assistant Professor, 1989-96; Associate Professor, 1996-2003, Professor, 2003-.

## Thomas C. Erdos

Associate Professor of Dance and Movement Studies (on Sabbatic, 2011-12)
B.S., Slippery Rock State College, 1968. Assistant Professor, 1977-82;

Associate Professor, 1982-; Aquatics Director, 1983-2007.

## Steven Farrelly-Jackson

Associate Professor of Philosophy
B.A., University of Capetown, 1980; Ph.D., Oxford University, 1992.

Instructor in Philosophy, 2004-09; Visiting Associate Professor, 2009-
11; Associate Professor, 2011-.

## Matthew Ferrence

Assistant Professor of English
B.A., Indiana University of Pennsylvania, 1997; M.F.A., University of Pittsburgh, 1999; Ph.D., West Virginia University, 2010. Assistant Professor of English, 2011-.

## Franklin E. Forts, Jr.

Assistant Professor of History
B.A., St. John Vianney College Seminary, 1986; M.Div., St. Mary Seminary and University, 1991; M.A., Loyola University of Chicago, 1999; University of Georgia, ABD. Assistant Professor/Diversity Scholar, Social Sciences, 2007-08; Assistant Professor, 2007-.

## Lauren B. French

Associate Professor of Biology
B.A., Oberlin College, 1993; Ph.D., Cornell University, 2001. Assistant Professor, 2001-2008; Associate Professor, 2008-.

## Ivelitza Garcia

Assistant Professor of Chemistry and Biochemistry
B.S., Florida International University, 1996; Ph.D., University of North Carolina, 2002. Assistant Professor, 2008-.

## Victoria Romaine Gardner

Assistant Professor of Religious Studies
B.A., Temple University, 1993; A.M., University of Michigan, 1996; Ph.D., 2006. Assistant Professor, 2008-.

## Amara Beth Geffen

Professor of Art (on Sabbatic, Spring, 2012)
B.F.A., University of Cincinnati, 1979; M.F.A., Indiana University, (Bloomington), 1982. Instructor in Art, 1982-86; Assistant Professor, 1986-89; Associate Professor, 1989-97; Professor, 1997-.

## Jacqueline S. Gehring

Assistant Professor of Political Science
B.A., Lawrence University, 1999; Ph.D., University of California, Berkeley, 2007. Assistant Professor, 2007-.

## Valerie A. Gilman

Visiting Assistant Professor of Art
B.A., Earlham College, 1988; M.F.A., School of the Art Institute of Chicago, 1997. Visiting Assistant Professor, 2006-.

## John Golden

Visiting Associate Professor of Economics
B.A., Canisius College, 1974; M.A., University of Connecticut-Storrs, 1976; Ph.D., 1989. Visiting Associate Professor, 2004-11; Associate Professor, 2011-.

## Don Goldstein

Professor of Economics (on Sabbatic, Spring, 2012)
A.B., Harvard College, 1974; Ph.D, 1991, University of Massachusetts (Amherst). Assistant Professor, 1989-97; Associate Professor, 19972004; Professor, 2004-.

## Beth Guldan

Visiting Assistant Professor of Chemistry
B.S., University of Wisconsin - Stevens Point, 1990; Ph.D., University of Minnesota, 1998. Visiting Assistant Professor, 2001-05; Instructor, 2006-07; Visiting Assistant Professor, 2007-.

## Gökçe Güngȯr

Visiting Assistant Professor of Psychology
B.A., Bogazici University, 2001; M.A., 2003; Ph.D., University of Kansas, 2010. Visiting Assistant Professor of Psychology, 2011-.

## Robert A. Hancock

Visiting Associate Professor of Psychology
A.A., Massasoit Community College, 1969; B.A., University of

Massachusetts, 1971; M.S., Kansas State University, 1974; Ph.D., 1976. Visiting Associate Professor, 2007-.

## Brian M. Harward

Associate Professor of Political Science
B.A., Gettyburg College, 1992; M.A., University of Georgia, 1999;

Ph.D., 2003. Associate Professor of Political Science, 2010-.

## Elisabeth Kalé Haywood

Associate Professor of History (on Sabbatic, 2011-12)
B.A., University of Chicago, 1990; M.A., Stanford University, 1992; Ph.D., 2001. Assistant Professor, 2004-11; Associate Professor, 2011-.

## Jennifer Wynne Hellwarth

Associate Professor of English; Senior Faculty in Women's Studies B.A., University of California, Berkeley, 1989; M.A., Stanford University, 1991; Ph.D., University of California, Santa Barbara, 1999. Assistant Professor, 2000-2007; Associate Professor, 2007-.

## Lowell E. Hepler

Professor of Music
B.S., Clarion University of Pennsylvania, 1972; M.F.A., CarnegieMellon University, 1974; Ph.D., Case Western Reserve University, 1986. Instructor in Music, 1974-77; Assistant Professor, 1977-87; Associate Professor, 1987-94; Professor, 1994-.

## Wilfredo Hernández

Associate Professor of Modern Languages
B.A., Universidad Central de Venezuela, 1990; M.A., University of Connecticut, 1998; Ph.D., 2002. Assistant Professor, 2000-09; Associate Professor, 2009-.

## Teresa Herrera de La Muela

Assistant Professor of Modern Languages
B.A., Universidad Autonoma de Madrid, 1998; M.A., University of Kentucky, 2001; Ph.D., 2004. Assistant Professor, 2005-.

## Judson S. Herrman

Associate Professor of Classical Studies
B.A., University of Michigan, 1992; Ph.D., Harvard, 1999. Assistant Professor, 2004-10; Associate Professor, 2010-.

## Bradley M. Hersh

Assistant Professor of Biology
B.A., Kenyon College, 1994; Ph.D., Massachusetts Institute of Technology, 2001. Assistant Professor, 2009-.

## Juvia P. Heuchert

Professor of Psychology (on Sabbatic, 2011-12)
B.A., University of Pretoria, 1981; H.Dip.Ed., University of the

Witwatersrand, 1982; B.A. (Hons), University of Pretoria, 1983; M.Sc., Georgia State University, 1985; M.A., Boston University, 1987; Ph.D., 1990. Associate Professor, 1998-2007; Professor, 2007-.

## Glenn Stanfield Holland

Professor of Religious Studies
B.A., Stanford University, 1974; M.A., University of Oxford, 1982;

Ph.D., University of Chicago, 1985. Assistant Professor, 1985-92;
Associate Professor, 1992-99; Holder of Bishop James Mills Thoburn Chair of Religious Studies, 1992-; Professor, 1999-; Holder of the Teacher-Scholar of the Humanities Chair, 2003-07.

## James E. Hollerman

Visiting Instructor of Mathematics
B.S., University of South Dakota, 1984; M.S., University of Nebraska, 1989. Visiting Instructor, 2003-.

## Jeffrey R. Hollerman

Associate Professor of Psychology
B.S., Allegheny College, 1983; M.S., University of Pittsburgh, 1988; Ph.D., 1992. Assistant Professor, 1997-2004; Associate Professor, 2004-.

## Richard Holmgren

Associate Professor of Mathematics
B.A., Gustavus Adolphus College, 1981; M.A., Kent State University, 1983; Ph.D., Northwestern University, 1988. Assistant Professor, 198895; Associate Professor, 1995-; Associate Dean of the College, 19992004.

## E. Eugene Hughes

Visiting Assistant Professor of Modern Languages
B.A., Wofford College, 1998; M.A., University of North Carolina Chapel Hill, 2006; Ph.D., 2011. Visiting Assistant Professor of Modern Languages, 2011-.

## Tricia L. Humphreys

Assistant Professor of Biology
B.A., Thomas More College, 1992; Ph.D., Miami University, 2000. Assistant Professor, 2008-

## Matthew C. Jadud

Assistant Professor of Computer Science
B.A., Kenyon College, 1998; M.S., Indiana University, 2002; Ph.D., University of Kent, 2006. Assistant Professor of Computer Science, 2008-.

## Ward M. Jamison

Professor of Music, Director of Choral Activities
B. M., Wheaton College, 1968; M.A., University of Northern Iowa, 1970; M.M.A., Yale School of Music, 1978; D.M.A., 1985. Assistant Professor, 1981-88; Director of Choral Activities, 1981-; Associate Professor, 198899; Professor, 1999.

## Gregory M. Kapfhammer

Associate Professor of Computer Science (on Sabbatic, Spring, 2012)
B.S., Allegheny College, 1999; M.S., University of Pittsburgh, 2005; Ph.D., 2007. Instructor, 2001-07, Assistant Professor, 2007-09; Associate Professor, 2009-

## Michael N. Keeley

Professor of Communication Arts (on Sabbatic, Fall, 2011)
B.A., The Pennsylvania State University, 1983; M.A., Marquette University, 1987; M.F.A., Brooklyn College, 1992. Assistant Professor, 1987-97;
Associate Professor, 1997-2005, Professor, 2005.

## Shanna A. Kirschner

Assistant Professor of Political Science
B.A., Carleton College, 2001; Ph.D., University of Michigan, 2009.

Assistant Professor, 2009-.

## Rebecca S. Kightlinger

Associate Professor of Global Health and Development B.S., Allegheny College, 1979; D.O., Philadelphia College of Osteopathic Medicine, 1986. Associate Professor of Global Health and Development, 2010-.

## Ann Martha Kleinschmidt

Associate Professor of Biology (on Sabbatic, 2011-12)
B.S., University of Wisconsin, 1977; Ph.D., University of California (Los Angeles), 1982. Assistant Professor, 1989-96; Associate Professor, 1996-.

## Aimee C. Knupsky

Assistant Professor of Psychology
B.A., Muskingum College, 1998; M.S., University of New Mexico, 2001;

Ph.D., University of New Mexico, 2005. Assistant Professor, 2005-.

## Lauren Kuhn

Visiting Assistant Professor of Psychology
B.A., Edinboro University of Pennsylvania, 1996; M.A., 1999; Ph.D., Duquesne University, 2009. Visiting Assistant Professor, 2009-.

## Jaclyn R. Kurash

Visiting Assistant Professor of Modern and Classical Languages
B.A., Allegheny College, 2001; M.A., University of Maryland, 2005.

Visiting Assistant Professor, 2010-.

## Tamara Jane Lakins

Professor of Mathematics
B.S., Western Illinois University, 1985; M.S., 1987; Ph.D., University of Illinois, 1993. Assistant Professor, 1995-2001, Associate Professor, 2001-
10; Professor, 2010.

## Cheryl A. Leech

Instructor in Mathematics
B.S., Allegheny College, 1987; M.A., University of Pittsburgh, 1989. Instructor, 2006-.

## Briana L. Lewis

Assistant Professor of Modern and Classical Languages
B.A., Furman University, 1999; M.A., Boston University, 2002; Ph.D.,

The University of North Carolina at Chapel Hill, 2006. Assistant Professor of Modern and Classical Languages, 2010-.

## Jialu Liu

Assistant Professor of Economics
B.A., B.S., Huazhong University of Science and Technology, 2005;
M.A., Indiana University, 2008. Assistant Professor of Economics, 2010-.

## Anthony J. Lo Bello

Professor of Mathematics (on Sabbatic, Fall, 2011)
A.B., Kenyon College, 1969; M.S., Yale University, 1973; M. Phil., 1974;

Ph.D., 1975. Assistant Professor, 1977-85; Associate Professor, 1985-90; Professor, 1990.

## Aisha Damali Lockridge

Assistant Professor of English (on Sabbatic, Fall, 2011)
B.A., City College, New York, 1999; Ph.D., Stony Brook University, New York, 2006. Visiting Assistant Professor, 2006-2007, Assistant Professor, 2007-.

## Calion B. Lockridge, Jr.

Assistant Professor of Psychology (on Sabbatic, Fall, 2011)
B.A., B.S., Langston University, 1997; M.A., Stony Brook University,

2002; Ph.D., 2007. Visiting Scholar in Social Sciences, 2006-07;
Assistant Professor, 2007-.
James C. Lombardi, Jr.
Associate Professor of Physics
A.B., Princeton, 1993; M.S., Cornell, 1996; Ph.D., 1998. Associate Professor, 2006-.

## Christopher Lundberg

Instructor in Biology and Mathematics
B.A., Westminster College (Missouri), 1990; M.S., Oregon State University, 1996. Instructor, 2001-.

## Stephen Michael Lyons

Professor of History
B.A., Gettysburg College, 1970; M.A., Brown University, 1973; Ph.D., 1980. Instructor in History, 1979-80; Assistant Professor, 1980-87; Associate Professor, 1987-95; Professor, 1995-.

## Michael F. Maniates

Professor of Environmental Science and Political Science (Leave of Absence, 2011-12)
B.S., University of California at Berkeley, 1979; M.A., 1983; Ph.D., 1990. Assistant Professor, 1993-99; Associate Professor, 1999-2006; Professor, 2006-

## Stephanie Martin

Assistant Professor of Economics
B.A., Hamline University, 1999; M.A., University of Colorado, 2002.

Assistant Professor, 2005-.

## Shannan Mattiace

Associate Professor of Political Science
B.A., Central College, 1990; Ph.D., University of Texas (Austin), 1998. Assistant Professor, 1999-2006; Associate Professor, 2006-

## Michael Mehler

Assistant Professor of Comunication Arts
B.S., Northwestern University, 1991; M.F.A., University of Texas
(Austin), 1994; Ph.D., University of Pittsburgh, 2010. Assistant Professor. 1995-1999, 2008-.

## Lloyd Michaels

Professor of English
B.A., Brandeis University, 1966; M.A., Ohio University, 1967; Ph.D.,

State University of New York at Buffalo, 1972. Assistant Professor,
1972-80; Associate Professor, 1980-87; Professor, 1987-; Dean of the College, 1999-04.

## Darren Miller

Assistant Professor of Art/Gallery Director
B.F.A., New York State College of Ceramics at Alfred University, NY,

1995; M.F.A., School of the Museum of Fine Arts, Tufts University, Boston, 2007. Assistant Professor of Art. 2008-, Gallery Director, 2008-.

## David Cameron Miller

Professor of English, Senior Faculty in Women's Studies
A.B., Stanford University, 1974; M.A., Brown University, 1976; Ph.D., 1982. Assistant Professor, 1985-93; Associate Professor, 1993-2005; Professor, 2005-.

## Antoni Moskwa

Associate Professor of Economics (on Sabbatic, Spring, 2012)
M.A., Warsaw University, 1967; Ph.D., Warsaw University, 1975.

Assistant Professor, 1982-90; Associate Professor, 1990-.

## Ronald L. Mumme

Professor of Biology
B.A., University of South Florida, 1975; Ph.D., University of California (Berkeley), 1984. Assistant Professor, 1990-95; Associate Professor, 1995-2004; Professor, 2004-.

## S. Shaun Murphree

Associate Professor of Chemistry
B.A., Colgate University, 1984; Ph.D., Emory University, 1991. Assistant Professor, 1999-2006; Associate Professor, 2006-.

## Mark Neff

Assistant Professor of Environmental Science
B.A., Whitman College, 1999; M.S., University of Oregon, 2005;

Ph.D., Arizona State University, 2009. Assistant Professor of Environmental Science, 2011-.

## Margaret K. Nelson

Associate Professor of Biology
B.A., Williams College, 1986; M.A., Princeton University, 1988; Ph.D., 1993. Assistant Professor, 1997-2004; Associate Professor, 2004-.

## Kirk Nesset

Professor of English
B.A., University of California (Santa Cruz), 1984; M.A., University of California (Santa Barbara), 1987; Ph.D., 1991. Assistant Professor, 1995-2000; Associate Professor, 2000-09; Professor, 2009-.

## Tomas W. Nonnenmacher

Professor of Economics
B.A., Allegheny College, 1990; M.S., University of Illinois at UrbanaChampaign, 1993; Ph.D., 1996. Visiting Assistant Professor, 1996-97; Assistant Professor, 1997-2004; Associate Professor, 2004-11; Professor, 2011.

## Rachel O'Brien

Associate Professor of Geology
B.A., Colgate University, 1986; M.S., Washington State University, 1992; Ph.D., 2000. Assistant Professor, 2000-2007; Associate Professor, 2007-.

## Carl Olson

Professor of Religious Studies
B.A., The Pennsylvania State University, 1967; M. Divinity, Drew Theological Seminary, 1970; Ph.D., Drew University, 1977. Assistant Professor, 1981-88; Associate Professor, 1988-94; Holder of the National Endowment for the Humanities Chair, 1991-94; Holder of the Teacher-Scholar of the Humanities Chair, 2000-03; Professor, 1994-.

## Stephen Z. Onyeiwu

Associate Professor of Economics
B.S., University of Port Harcourt (Nigeria), 1982; M.S., University of Ife (Nigeria), 1987; Dip., SPRU, University of Sussex (U.K.), 1990; M.A., 1996, University of Connecticut, Ph.D., 1997. Assistant Professor, 2001-07; Associate Professor, 2007-.

## Russell A. Ormiston

Assistant Professor of Economics
B.S., Michigan State University, 1999; M.A., 2002; M.A., 2007; Ph.D., 2007. Assistant Professor of Economics, 2010-.

## Milton Lewis Ostrofsky

Professor of Biology (on Sabbatic, 2011-12)
B.A., University of Vermont, 1969; M.S., University of Waterloo, 1974; Ph.D., 1976. Assistant Professor, 1978-88; Associate Professor, 1988-96; Professor, 1996-

## Elizabeth Weiss Ozorak

Professor of Psychology
B.A., Wesleyan University, 1978; M.A., Harvard University, 1983; Ph.D., 1987. Assistant Professor, 1989-95; Associate Professor, 19952005; Professor, 2005-.

## Eric T. Pallant

Professor of Environmental Science
B.A., Wesleyan University, 1980; M.F.S., Yale School of Forestry and

Environmental Studies, 1983; Ph.D., Cornell University, 1987. Assistant Professor, 1987-94; Associate Professor, 1994-2001; Professor, 2001-.

## Eric Palmer

Associate Professor of Philosophy
B.A., Carleton University (Canada), 1986; M.A., University of California (San Diego), 1989; Ph.D., 1991. Assistant Professor, 1994-2001; Associate Professor, 2001-; Holder of the Teacher-Scholar of the Humanities Chair, 2006-09.

## James O. Palmer

Associate Professor of Environmental Science and Biology
B.A., University of Pennsylvania, 1976; Ph.D. University of Texas at Austin, 1981. Assistant Professor, 1992-2000; Associate Professor, 2000..

## Ryan Singh Paul

Visiting Assistant Professor of English
B.A., University of Texas at Austin, 1999; M.A., Texas State UniversitySan Marcos, 2005; Ph.D., University of Arizona, 2010. Visiting Assistant Professor of English, 2010-.

## Lauren R. Paulson

Visiting Assistant Professor of Psychology
B.A., Edinboro University, 1996; M.A., 1998; Ph.D., Duquesne University, 2009. Visiting Assistant Professor of Psychology, 2011-.

## Phillip J. Persichini III

Associate Professor of Chemistry
B.S., University of Pittsburgh at Bradford, 1988; M.S., Virginia Polytechnic Institute and State University, 1994; Ph.D., University of Wyoming, 1998. Assistant Professor, 2000-07; Associate Professor, 2007-.

## Doros T. Petasis

Associate Professor of Physics
B.S., Indiana University, 1986; M.S., Carnegie Mellon University, 1989; Ph.D., 1995. Assistant Professor, 1999-2006; Associate Professor, 2006-.

## Kenneth M. Pinnow

Associate Professor of History
B.A., Duke University, 1987; Ph.D., Columbia University, 1998.

Assistant Professor, 1999-2006; Associate Professor, 2006.

## Lawrence T. Potter

Chief Diversity Officer, Associate Dean of the College, Professor of English B.A., Stillman College, 1995; M.A., University of Missouri-Columbia, 1996; Ph.D., 1999. Chief Diversity Officer, Associate Dean of the College, Professor of English, 2010-.

## Adelé N. Poynor

Assistant Professor of Physics
B.S., University of Maryland at Baltimore, 1995; M.S., University of Illinois at Urbana-Champaign, 2003, Ph.D., 2006. Assistant Professor, 2006-

## Laura Louise Quinn

Frederick F. Seely Professor of English, Professor of English, Senior Faculty in Women's Studies
B.A., University of Minnesota, 1969; Ph.D., 1981. Assistant Professor, 1989-96; Associate Professor, 1996-2005; Professor, 2005-.

## Shafiqur M. Rahman

Professor of Physics
B.S., Martin Luther University (Germany), 1978; M.S., Northwestern

University, 1980; Ph.D., 1983. Assistant Professor, 1986-91; Associate
Professor, 1991-2001; Professor, 2001-.

## Susan Mayo Rankin

Professor of Biology (on Sabbatic, 2010-11)
B.A., University of Texas at Austin, 1974; Ph.D., 1980. Assistant

Professor, 1990-97; Associate Professor, 1997-2005; Professor, 2005-.

## Laura K. Reeck

Associate Professor of Modern and Classical Languages
B.A., St. Olaf College, 1994; M.A., NYU in France, 1996; Ph.D., NYU, 2002. Visiting Professor, 2002-03, Assistant Professor, 2004-10;

Associate Professor, 2010-.

## James Reedy

Artist-in-Residence, Dance and Movement Studies Program
B.A., Xavier University, 1972; J.D., DePaul University School of Law, 1975; Graduate of Full Spectrum Healing Arts School, 2003. Artist-inResidence, Dance and Movement Studies Program, 2004-.

## Jochen Hans Richter

Mary Bieler Professor of Modern Languages
Philosophicum, Kiel University, 1966; M.A., Syracuse University, 1968; Ph.D., 1975. Instructor, 1970-73; Assistant Professor, 1973-79; Associate Professor, 1979-87; Professor, 1987-.

## Barbara D. Riess

Associate Professor of Modern Languages
B.A., University of Connecticut, 1988; M.A., 1993; Ph.D., Arizona State University, 1999. Assistant Professor, 1999-2006; Associate Professor, 2006-.

## George S. Roland

Professor of Art
B.F.A., Virginia Commonwealth University, 1969; M.F.A., University of Wisconsin, 1972. Assistant Professor, 1979-87; Associate Professor, 198796; Professor, 1996.

## Robert Roos

Associate Professor of Computer Science
B.S., Waynesburg College, 1972; M.S., University of Illinois, 1974;
M.C.S., 1977; Ph.D., The Pennsylvania State University, 1988. Assistant Professor, 1996-2003, Associate Professor, 2003-.

## Patricia Rutledge

Associate Professor of Psychology
B.A., Murray State, 1978; M.A., Washington University in St. Louis, 1980; Ph.D., 1983. Associate Professor, 2006-.

## Brian Michael Saltsman

Visiting Assistant Professor of Psychology
B.S., The Pennsylvania State University, 2001; Ph.D., 2007. Visiting

Assistant Professor, 2009-.

## Richard A. Schindler

Associate Professor of Art (on Sabbatic, 2011-12)
B.A., Gettysburg College, 1972; M.A., University of Massachusetts, 1978; Ph.D., Brown University, 1988. Assistant Professor, 1990-97;
Associate Professor, 1997-.

## Robert Karl Schwartz

Professor of Geology
B.S., Allegheny College, 1966; M.A., Indiana University, 1968; Ph.D., 1972. Assistant Professor, 1979-88; Associate Professor, 1988-95; Professor, 1995-.

## Joshua Searle-White

Associate Professor of Psychology
B.A., Oberlin College, 1982; M.A., Clark University, 1987; Ph.D., 1991. Assistant Professor, 1995-2002; Associate Professor, 2002-.

## Martin J. Serra

Professor of Chemistry
B.A., Tarkio College, 1972; Ph.D., Ohio University, 1976. Assistant Professor, 1978-88; Associate Professor, 1988-97; Professor, 1997-.

## Barry M. Shapiro

Professor of History
B.A., Harpur College, SUNY Binghamton, 1965; M.A., University of Chicago, 1968; Ph.D., University of California (Los Angeles), 1988. Assistant Professor, 1988-95; Associate Professor, 1995-2003, Professor, 2003.

## Barbara L, Shaw

Visiting Assistant Professor of Women's Studies
B.A., Colby College, 1991; M.A., University of Maryland, 1995; Research M.A., University of Birmingham U.K., 2000; Ph.D., University of Maryland, 2007. Visiting Assistant Professor of Women's Studies, 2011-.

## Dan Shea

Professor of Political Science; Director, Center for Political Participation B.A., State University of New York (Oswego), 1984; M.A., University of West Florida, 1986; Ph.D., State University of New York (Albany), 1993. Associate Professor, 1999-2006; Director, Center for Political Participation, 2003-; Professor, 2006-.

## Ann Elizabeth Sheffield

Professor of Chemistry, Registrar, Associate Dean of the College
B.A., Johns Hopkins University, 1981; Ph.D., University of Maryland, 1988. Assistant Professor, 1988-95; Associate Professor, 1995-2004; Professor, 2004-; Registrar, 2008-; Associate Dean of the College, 2008-.

## Xiaoling Shi

Assistant Professor of Modern and Classical Languages
B.A., Hubei University, 1994; M.A., Wuhan University, 1999; Ph.D.,

The University of Arizona, 2009. Assistant Professor, 2010-.
Janine L. Sickafuse
Associate Professor of Economics
B.A., Grove City College, 1981; M.B.A., Youngstown State University, 1983. Instructor, 1983-93; Assistant Professor, 1993-2004; Associate

Professor, 2004-

## Vesta Silva

Associate Profesor of Communication Arts
B.A., Indiana University (Indianapolis), 1998; M.A., Ph.D., University of Iowa, 2004. Assistant Professor, 2004-11; Associate Professor, 2011-.

## Ishita Sinha Roy

Associate Professsor of Communication Arts
B.A., University of Bombay, India, 1987; M.A., University of Bombay, 1989; M.A., P.h.D., University of Southern California, 1999. Assistant Professor, 2001-08; Associate Professsor. 2008-.

## Benjamin H. Slote

Professor of English, Associate Dean of the College
B.A., Northwestern University, 1981; M.A., Yale University, 1984; M.Phil, 1985; Ph.D., 1990. Assistant Professor, 1990-97; Associate Professor, 19972008; Professor, 2008-; Associate Dean of the College, 2008-.

## Bruce J. Smith

Arthur Braun Professor of Political Science (on Sabbatic, Fall, 2011) B.A., Rutgers University, 1972; Ph.D., Rutgers University, 1982.

Assistant Professor, 1984-88; Associate Professor, 1988-95; Professor, 1995-2002; Dean of the College, 1996-99; Arthur Braun Professor of Political Science 2002-.

## Nancy Smith

Instructor in Modern $\mathcal{E}$ Classical Languages
B.A., 1974., M.A.T., 1975, Allegheny College. Instructor, 2007-.

## David E. Statman

Professor of Chemistry and Physics
A.B,, Lafayette College, 1977; Ph.D., SUNY at Stony Brook, 1982.

Associate Professor, 1993-2002; Professor, 2002-.

## Howard Y. Tamashiro

Professor of Political Science (on Sabbatic, Spring, 2012)
B.A., University of Hawaii, 1969; Ph.D., Ohio State University, 1981.

Assistant Professor, 1989-94; Associate Professor, 1994-2004; Professor, 2004-.

## Chinua Thelwell

Visiting Assistant Professor of History
B.A., Tufts University, 2004; A.B.D., New York University. Visiting Scholar in Social Sciences, 2009-10; Visiting Professor of History, 2010-.

## Paula A. Treckel

Harry A. Logan, Sr. Professor of American History, Professor of History, Senior Faculty in Women's Studies
B.A., Kent State University, 1973; M.A., Syracuse University, 1976;

Ph.D., 1978. Assistant Professor, 1981-86; Associate Professor, 1986-95; Professor, 1995-.

## Ryan H. Van Horn

Visiting Assistant Professor of Chemistry
B.S., Lafayette College, 2004; Ph.D., University of Akron, 2009.

Visiting Assistant Professor of Chemistry, 2010-.

## Caryl E. Waggett-Utz

Associate Professor of Environmental Science
B.A., Brown University, 1992; Ph.D., University of California at Berkeley, 2004. Assistant Professor, 2003-10, Associate Professor, 2010-.

## Ryan Van Horn

Assistant Professor of Chemistry
B.A., Lafayette College, 2004; Ph.D., University of Akron, 2009.

Assistant Professor of Chemistry, 2011.

## Beth Watkins

Professor of Communication Arts; Managing Director of the Playshop Theatre B.A., Moorhead State University, 1981; M.F.A., University of Texas, 1986. Assistant Professor, 1986-93; Associate Professor, 1993-2002;

Professor, 2002-; Associate Dean of the College, 2004-08; Managing Director of the Playshop Theatre, 2011-.

## Kristen M. Webb

Assistant Professor of Biology
B.S., Penn State Erie, The Behrend College, 2000; Ph.D., The George Washington University, 2008. Assistant Professor of Biology, 2010-.

## Rachel Joanne Weir

Associate Professor of Mathematics
B.S., University of Auckland, 1995; Ph.D., University of Michigan, 2001. Assistant Professor, 2004-11; Associate Professor, 2011-.

## Eleanor Weisman

Associate Professor of Dance and Movement Studies
B.F.A., University of Oklahoma, 1974; M.A.L.S., Wesleyan University, 1981; Ph.D., The Ohio State University, 1994. Assistant Professor, 2004-11; Associate Professor, 2011-.

## Jeremy Wells

Visiting Assistant Professor of English
B.A., Vanderbilt, 1994; M.A., University of Michigan, 1997; Ph.D., 2000.

Visiting Assistant Professor of English. 2010-.

## Caryn Werner

Associate Professor of Mathematics
B.A., SUNY Binghamton, 1989; M.S., 1991, Ph.D., 1995, Colorado

State University. Assistant Professor, 2001-07; Associate Professor, 2007-.

## Sharon Wesoky

Associate Professor of Political Science
B.A., Brandeis University, 1991; M.A., Cornell University, 1995; Ph.D.,

Cornell University, 1999. Assistant Professor, 1998-2005; Associate
Professor, 2005.

## Lisa B. Whitenack

Visiting Assistant Professor of Biology
B.S., University of Illinois at Urbana-Champaign, 1999; M.S., Michigan

State University. 2001; Ph.D., University of South Florida, 2008. Visiting Assistant Professor of Biology, 2010-.

## Gordon G. Whitney

Visiting Assistant Professor, Environmental Science
B.A., Denison University, 1969; M.F.S., Yale University, 1974; M.S.,

Yale University, 1975; Ph.D., Yale University, 1978. Scholar in
Residence, 2003-04; Visiting Assistant Professor, 2004-.

## Jon Wiebel

Assistant Professor of Communication Arts
B.A., Baylor University, 1994; M.A., University of North Carolina (Chapel Hill), 1997; Assistant Professor of Communications Arts, 2011.

## Daniel Robert Willey

Professor of Physics
A.B., Dartmouth College, 1980; M.A., Duke University, 1987; Ph.D., 1989. Assistant Professor, 1989-96; Associate Professor, 1996-2005; Professor, 2005-.

## Julie Wilson

Visiting Assistant Professor of Communication Arts
B.A., Macalester College, 1997; M.A., University of Minnesota, 2007; A.B.D., University of Minnesota. Visiting Assistant Professor of Communication Arts, 2010-.
Kristin R. Wilson
Visiting Assistant Professor of Environmental Science
B.A., Middlebury College, 2002; M.S., University of Maine, 2006; Ph.D., 2010. Visiting Assistant Professor of Environmental Science, 2011-.

## Scott A. Wissinger

Professor of Biology and Environmental Science
A.B., Susquehanna University, 1977; M.S., Bowling Green State University, 1979; Ph.D. Purdue University, 1986. Assistant Professor, 1986-93; Associate Professor, 1993-2001; Professor, 2001-.

## Phillip Jerrold Wolfe

Professor of Modern Languages (on Sabbatic, 2011-12)
Diplôme de littérature française contemporaine, Institut des Professeurs de francais à l'Etranger, La Sorbonne, 1969; B.A., Hamilton College,
1970; M.A., Princeton University, 1972; Ph.D., 1974. Assistant
Professor, 1981-88; Associate Professor, 1988-96; Professor, 1996-.

## Guo Wu

Assistant Professor of History
B.A., Beijing Language and Culture University, 1995; M.A., Georgia State University, 2002; Ph.D., State University of New York at Albany, 2006. Assistant Professor, 2006-.

## Emily Chivers Yochim

Assistant Professor of Communication Arts
B.A., Allegheny College, 2000; Ph.D., University of Michigan, 2007.

Visiting Assistant Professor, 2008-10; Assistant Professor, 2010-.

## Adjunct Faculty

## Earl Adams

Professor Emeritus of Economics
B.A., University of Michigan, 1959; Ph.D., Massachusetts Institute of

Technology, 1971.

## Christian L. Allison

Entrepreneur in Residence
B.A., Allegheny, 1983.

Bronwell Berg Bond
Instructor in Music (flute)
B.A., Milton College, 1970.

Rebecca Anne Borthwick-Aiken
Instructor in Music (organ)

## B.A., Tarkio College; M. Sacred Music, Union Theological Seminary.

## Marcella Branagan

Instructor in Music (piano)
M.F.A., State University of New York at Buffalo; D.M.A., Eastman

School of Music.

## George Byrnes

Instructor in English

## Stephen Corsi

Instructor in Music (percussion)
B.S., Indiana University of Pennsylvania, 1977; M.M., Duquesne

University, 1986.

## Hannah Cosdon

Instructor in Dance and Movement Studies
B.A., Connecticut College; M.S.W., Smith College, School for Social Work, 1997.

## Marcia Findlay

Instructor in Environmental Science

## James Froman

Instructor in Music (guitar)
B.A., University of Hawaii, 1982.

## Julie Hepler

Instructor in Music (bassoon, clarinet, and saxophone, Music Appreciation, Music History, and Chamber Music)
B.M., Music History, Ohio University, 1985; M.M., in Woodwind Performance/Pedagogy, Ohio University, 1987; ABD, Louisiana State University.

## Vicki A. Jamison

Instructor in Music (voice)
B.A., University of Northern Iowa.

## Curtis Kenney-Benson

Instructor in Physics
B.S., Hope College, 1991; M.A., University of Illinois, 1993.

## Thomas Leech

Instructor in Music (French horn)
M.S. Applied Mathematics, Kent State University, 1988.

## Carolina Melchiori

Instructor in Music (string bass)
B.M., University of Georgia, 2004; M.M., 2006; DMA candidate, Michigan University.

## Larry Mencotti

Instructor in Sociology
B.A., Wayne State, 1965; M.A., Northwestern University, 1970; Ph.D., 1976.

## Robin A. Orttung

Lecturer in Modern and Classical Languages
B.A., Harvard, 1987; M.A., Boston University, 2005; A.B.D., Boston University.

## Leslie Petasis

Instructor in Dance
B.A., Indiance University; M.A.T., University of Pittsburgh, 1991.

## Hilary Philipp

Instructor in Music (oboe)
M.M., University of Massachusetts

## Wendy Plyler

Instructor in Music (piano), accompanist
B.M., New England Conservatory of Music, 1991.

## Aimee Reash

Instructor in Music (voice)
B.A., Allegheny College, 1996.

## Susanna Reilly

Instructor in Music (cello)

## M.M., Carnegie Mellon University

## Karen D. Richter

Director, Center for Language and Culture
B.A., M.A., Syracuse University

## Sarah Roncolato

Instructor in Religious Studies
B.A., Allegheny College, 1980; M.A., Creighton University; M.Div., Pittsburgh Theological Seminary.

## Robert Rudolph

Instructor in Music (strings and orchestra)
B.MEd., Indiana University of Pennsylvania, 1965; M.MEd., 1970..

## Sarah Sargent

Instructor in Biology and Environmental Science
B.S., Swarthmore College; M.S., Ph.D., Cornell University.

## Penni Schaefer

Instructor in English
Kelli Shellito
Instructor in Music (piano)
M.M., Duquesne University.

## Deke Showman

Instructor in Music (bagpipes)
B.A., Edinboro University of Pennsylvania.

## Susan G. Slote

Lecturer in English
B.A., Mount Holyoke, 1984; M.A., Yale University; M.Phil, Yale

University, 1990.

## Ronald Stitt

Instructor in Music (trombone, euphonium, Jazz Band)
B.M., Indiana University of Pennsylvania, 1969; M.A., The Pennsylvania State University, 1973; Ph.D., Case Western University, 1997.

## James Strickler

Lecturer in Communication Arts
B.A., Grove City College, 1950.

## Betsy Sumerfield

Lecturer in Dance and Movement Studies
B.A., Allegheny College; M.A., Dance, American University.

## Kathy Symons

Instructor in Music (voice)
B.M.E., Barrington College, 1971.

## Karol Tomczak

Instructor in Art

## President Emeritus

## Richard J. Cook

President Emeritus
B.S., University of Michigan, 1969; M.A., Ph.D., Princeton University, 1973. President and Professor of Chemistry, 1996-2008; President Emeritus, 2008.

## Faculty Emeriti

## Earl William Adams, Jr.

Professor Emeritus of Economics
B.A., University of Michigan, 1959; Ph.D., Massachusetts Institute of

Technology, 1971. Professor, 1972-2005; Professor Emeritus, 2005.

## Kenneth George Ainsworth

Professor Emeritus of Economics
B.A., University of Wisconsin, 1948; M.S., 1949; Ph.D., Brown University,
1957. Assistant Professor, 1957-63; Associate Professor, 1963-67; Professor, 1967-91; Secretary of the Faculty, 1985-91; Professor Emeritus, 1991.

## David Elwood Anderson

## Professor Emeritus of Psychology

B.A., Fresno State College, 1964; M.A., 1966; Ph.D., Washington State University, 1969. Assistant Professor of Psychology, 1972-79; Associate Professor, 1979-87; Associate Professor of Computer Science, 1985-91; Professor of Psychology, 1987-2006; Director of Educational Computing, 1992-95; 1997-2000; Professor Emeritus, 2006.

## Mary P. Bivens

Associate Professor Emerita of Computer Science
B.A., Monmouth College, 1963; M.Ed., Edinboro State College, 1980;
M.S., University of Pittsburgh, 1983, Ph.D., 1987. Mathematics Instructor and Tutor, 1975-82; Assistant Professor, 1987-93; Associate Profes-
sor, 1993-2001; Associate Professor Emerita, 2001.

## Richard Lowell Bivens

Professor Emeritus of Chemistry
B.A., Monmouth College, 1961; M.S., Western Reserve University,

1963; Ph.D., Case Western Reserve University, 1969. Assistant Professor, 1965-72; Associate Professor 1972-79; Professor, 1979-2000; Associate Dean of the College, 1984-88; Professor Emeritus, 2000.

## Stephen Edward Bowser

Professor Emeritus of Mathematics
B.S., Gonzaga University, 1972; M.S., Drexel University, 1973; Ph.D., 1981. Assistant Professor, 1982-89; Associate Professor, 1989-96; Professor, 1996-2005; Professor Emeritus, 2005.

## Frances Elizabeth Butler

Professor Emerita of Sociology
B.A., Radcliffe College, 1940; M.A., American University, 1956; Ph.D., 1961. Associate Professor, 1971-80; Professor Emerita, 1980.

## Charles Allen Cable

Professor Emeritus of Mathematics
B.S., Edinboro State College, 1954; M.Ed., University of North Carolina, 1959; Ph.D., The Pennsylvania State University, 1969. Associate Professor, 1969-75; Professor, 1975-96; Professor Emeritus, 1996.

## Bruce Lynn Clayton

Professor Emeritus of American History
B.A., University of Missouri at Kansas City, 1961; M.A., Duke University, 1963; Ph.D., 1966. Assistant Professor, 1966-70; Associate Professor, 1970-76; Professor, 1976-84; Harry A. Logan, Sr. Professor of American History, 1984-2003; Professor Emeritus, 2003.

## Alexander Dale

Professor Emeritus of Psychology
B.A., Waterloo Lutheran University, 1966; M.A., University of Waterloo, 1969; Ph.D., 1971. Assistant Professor, 1970-77; Associate Professor, 1977-84, Health Professions Advisor, 1976-88; Professor, 19842007; Professor Emeritus. 2008-.

## Courtenay B. Dodge

Professor Emerita of Modern Languages
B.A., Juniata College, 1966; M.A., The Pennsylvania State University, 1968; Ph.D., 1976. Instructor, 1972-76; Assistant Professor, 1976-85; Associate Professor, 1985-96; Coordinator of Off-Campus Study, 199496; Professor, 1996-11; Professor Emerita, 2011.

## Thomas W. Dougan

Professor Emeritus of Geology
B.S., McMaster University, 1960; M.A., Princeton University, 1962;

Ph.D., 1967. Assistant Professor, 1967-71; Associate Professor, 1971-78; Professor, 1978-98; Professor Emeritus, 1998.

## Samuel Kermit Edwards

Professor Emeritus of Classics
B.A., Emory University, 1941, B.A., Oxford University, 1953, M.S., 1956;
M.A., Princeton University, 1962. Assistant Professor, 1962-72; Associate

Professor, 1972-80; Professor, 1980-87; Professor Emeritus, 1988.

## Irwin Norman Gertzog

Professor Emeritus of Political Science
B.A., Union College, 1954; Ph.D., University of North Carolina at Chapel Hill, 1965. Professor, 1971-99; Professor Emeritus, 1999.

## Ronald Earl Harrell

Professor Emeritus of Mathematics
B.A., University of Maine, 1966; M.A., University of Maryland, 1969; Ph.D., 1971. Assistant Professor, 1971-78; Associate Professor, 1978-89; Professor, 1989-2006; Professor Emeritus, 2006.

## Benjamin David Haytock

Professor Emeritus of Mathematics and Computer Science B.S., Allegheny College, 1966; M.S., Carnegie-Mellon University, 1969; D.A., 1970. Assistant Professor, 1971-79; Associate Professor, 1979-89; Professor, 1989-2008; Registrar, 1993-2008; Associate Dean of the College, 1993-2008; Professor Emeritus, 2008.

## Jonathan Ernst Helmreich

Professor Emeritus of History and College Historian
B.A., Amherst College, 1958; M.A., Princeton University, 1960; Ph.D., 1961. Assistant Professor, 1962-66; Associate Professor, 1966-72;

Professor, 1972-98; Dean of Instruction, 1966-81; Secretary of the Faculty, 1991-94; Professor Emeritus, 1998.

## James Charles Hogan

Professor Emeritus of Classics
B.A., University of Oklahoma, 1958; M.A., Cornell University, 1961; Ph.D., 1966. Frank T. McClure Professor of Classics, 1969-99; Professor Emeritus, 1998.

## Mary A. Hudak

Professor Emerita of Psychology
A.A., Cosumnes River College, 1975; B.A., California State University at Sacramento, 1977; M.A., University of Wyoming, 1978; Ph.D., 1980. Assistant Professor, 1980-88; Associate Professor, 1988-96; Professor, 1996-98; Professor Emerita, 1998.

## Janyce J. Hyatt

Assistant Professor Emerita of Dance Studies
B.A., Case Western Reserve University, 1958; B.S., Kent State University, 1972; M.A., Ed. Allegheny College, 1984; M.F.A., Case Western Reserve University, 1986; Ed.D., Teachers College, Columbia University, 1998. Instructor in Physical Education, 1982-98; Assistant Professor of Dance Studies, 1998-2005; Assistant Professor Emerita of Dance Studies, 2005.

## Nels G. Juleus

Professor Emeritus of Communication Arts
B.A., Western Reserve University, 1950; M.A., 1951; Ph.D., 1963.

Instructor in Speech and Communication, 1955-59; Assistant Professor, 1959-65; Associate Professor, 1965-70; Professor, 1970-84; Professor, 1984-92; Professor Emeritus, 1992.

## Charles B. Ketcham, Jr.

Professor Emeritus of Religious Studies
B.A., Mount Union College, 1949; Fulbright Scholar, University of Edinburgh, 1949-50; University of Zurich, 1951; B.D., Drew Theological Seminary, 1953; Ph.D., University of St. Andrews, 1956. Chaplain, 1957-63; Assistant Professor, 1957-60; Associate Professor, 1960-66; Professor, 1966-88; Professor Emeritus, 1991.

## Herbert L. Klions

Professor Emeritus of Psychology
B.A., Queens University, 1948; M.A., University of Toronto, 1950;

Ph.D. University of Pittsburgh, 1960. Assistant Professor, 1959-1964; Associate Professor, 1964-70; Professor, 1970-1992; Professor Emeritus, 1992.

## James Carmen Lombardi

Professor Emeritus of Physics
B.A., Gettysburg College, 1964; M.A.T., Fairleigh-Dickinson University, 1966, M.S., 1967; Ph.D., Rutgers University, 1972. Assistant

Professor, 1972-78; Associate Professor, 1978-88; Professor, 1988-2006; Professor Emeritus, 2006.

## Barbara Lotze

Professor Emerita of Physics
Eotvos Lorand University of Sciences, 1951-55; Diploma, Applied Mathematician, Budapest, 1956; Ph.D., Innsbruck University, 1961. Assistant Professor, 1963-69; Associate Professor, 1969-77; Professor, 1977-90; Professor Emerita, 1990.

## Richard Frederick McDermot

Professor Emeritus of Mathematics and Computer Science
B.S., Carnegie Institute of Technology, 1958; M.S., 1960; Ph.D., Carnegie-Mellon University, 1970. Instructor of Mathematics, 1962-68; Assistant Professor, 1970-71; Associate Professor, 1971-79; Professor, 1979-98; Associate Dean of the College, 1988-91; Professor, 1991-95; Professor Emeritus, 1998.

## Richard William Moodey

Professor Emeritus of Sociology and Anthropology
B.Litt., Xavier University, 1957; Licentiate (Philosophy), Loyola University, 1969; M.A., 1961; Ph.D., University of Chicago, 1971. Assistant Professor, 1968-74; Associate Professor, 1974-88; Professor, 1988-98; Professor Emeritus, 1998.

## Richard P. Overmyer, Jr.

Professor Emeritus of Communication Arts
B.A., Allegheny College, 1956; M.A., California State University at San Jose, 1964. Instructor in Drama, 1966-67; Assistant Professor, 196775; Associate Professor, 1975-85; Professor, 1985-98; Professor Emeritus, 1998.

## Robert Gerard Raczka

Professor Emeritus of Art
B.S., Northern Arizona University, 1978; B.F.A., 1978; M.F.A., University of Florida, 1980. Assistant Professor of Art, 1989-96; Gallery Director, 1989-; Associate Professor, 1996-2004; Professor, 2004-2008; Professor of Emeritus, 2008.

## Gerald Seymour Reisner

Professor Emeritus of Biology
B.A., Albany State College for Teachers, 1949; M.A., 1952; M.S., Cornell University, 1955; Ph.D., 1956. Assistant Professor, 1958-63; Associate Professor, 1963-70; Professor, 1970-96; Professor Emeritus, 1996.

## Glen Ernest Rodgers

Professor Emeritus of Chemistry
B.S., Tufts University, 1966; Ph.D., Cornell University, 1971. Assistant Professor, 1975-81; Associate Professor, 1981-91; Professor, 1991-2005; Professor Emeritus, 2005.

## Robert Schall

Professor Emeritus of Education
B.A., Grove City College, 1957; M.A., George Peabody College, 1968, Ed.D., 1970. Instructor in Education, 1964-70; Assistant Professor, 1970-71; Associate Professor, 1971-78; Professor, 1978-87; Professor Emeritus, 1988.

## Robert George Seddig

Professor Emeritus of Political Science
B.S., Carleton College, 1963; M.A., Princeton University, 1965; Ph.D., 1971. Assistant Professor, 1967-74; Associate Professor, 1974-83; Professor, 1983-2010; Professor Emeritus, 2010.

## Don Covill Skinner

## Chaplain Emeritus

B.A., Allegheny College, 1956; B.D., Yale University Divinity School, 1959; Ph.D., Syracuse University, Maxwell School of Citizenship and Public Affairs, 1966. Dean of Students, 1978-85; Chaplain, 1985-93; Title IX Grievance Officer, EEO Officer, 1992-93; Chaplain Emeritus, 1994.

## Norman A. Sundstrom

Professor Emeritus of Physical Education
B.S. Lock Haven State College, 1953; M.Ed., The Pennsylvania State University, 1962. Assistant Professor, 1970-78; Associate Professor, 1978-89; Director of Athletics, 1979-92; Professor, 1989-97; Professor Emeritus, 2001.

## Ethel Jean Thom

Assistant Professor Emerita of Education
B.S., Kent State University, 1950; M.A., Teachers College, Columbia

University, 1957. Assistant Professor, 1981-90; Assistant Professor
Emerita, 1990.

## Glenn Willard Thompson

Professor Emeritus of Psychology
B.S., Clarion State College, 1952; M.S., The Pennsylvania State

University, 1958; Ph.D., 1962. Assistant Professor, 1961-66; Associate Professor, 1966-70; Professor, 1970-96; Professor Emeritus, 1996.

## Richard Wellington Turk

Professor Emeritus of History
B.A., Albion College, 1960; M.A., The Fletcher School of Law and Diplomacy of Tufts University, 1961; National Defense Fellowship, 196063; M.A.L.D., 1962; Ph.D., 1968. Assistant Professor, 1968-76; Associate Professor, 1976-85; Professor, 1985-2006; Professor Emeritus, 2006.

## Louis A. Wagner

Professor Emeritus of Modern Languages
B.S., University of Pittsburgh, 1962; M.A., Indiana University, 1966, East European Area Certificate, Indiana University, 1966. Instructor in Modern Languages, 1967-72; Assistant Professor, 1972-84; Associate Professor, 1984-94; Professor, 1994-2003; Secretary of the Faculty, 19942003; Director of Language Learning Center, 2000-2003, Professor of Emeritus, 2003.

## Mary Collins Wagner

Associate Professor Emerita of Modern Languages
Universidad de los Andes, Bogotá, Colombia, 1961-62; B.A., Louisiana State University, 1965; M.A., Columbia University, 1967; M. Phil, 1979. Instructor in Modern Languages, 1968-73; Assistant Professor, 1973-87; Associate Professor, 1987-2003, Associate Professor Emerita, 2003.

## Edward Joseph Walsh

Professor Emeritus of Chemistry
B.S., State University of New York at Albany, 1960; Ph.D., University of New Hampshire, 1964. Assistant Professor of Chemistry, 1964-68; Associate Professor, 1968-76; National Science Professor, 1976-99; Professor Emeritus, 1999.

## Giles Wayland-Smith

Professor Emeritus of Political Science
B.A., Amherst College, 1957; Ph.D., Syracuse University, 1968.

Assistant Professor, 1967-74; Associate Professor, 1974-84; Professor, 1984-99; Professor Emeritus, 1999.

## Glenn G. Wurst

Professor Emeritus of Biology
B.S., Juniata College, 1967; Ph.D., University of Pittsburgh, 1975. Assistant Professor, 1975-85; Associate Professor, 1985-2008; Professor, 20082010; Professor Emeritus, 2010.

## Paul G. Zolbrod

Professor Emeritus of English
B.A., University of Pittsburgh, 1958; M.A., 1962; Ph.D., 1967;

Fulbright Scholar, University of Caen, 1958-59. Instructor in English, 1964-66; Assistant Professor, 1966-70; Associate Professor, 1970-77; Professor, 1977-95; Holder of the Frederick F. Seely Chair in English, 1989-94; Professor Emeritus, 1997.

## Administration

## Office of the President

## James H. Mullen, Jr.

President and Professor of Political Science
B.A., College of the Holy Cross, 1980; M.A., The John F. Kennedy School of Government at Harvard University, 1984; Ed.D., University of Massachusetts at Amherst, 1994. President and Professor of Political Science, 2008-.

## Sandra DuChene

Assistant to the President
Secretarial Certificate, Erie Commercial College, 1965. Assistant to the President, 1987-

## Gillian F. Ford

Assistant to the President for Board Relations
Bachelor of Social Work, West Virginia University, 1992. Director of Development, 2008-11; Assistant to the President for Board Relations, 2011-.

## Jonathan Ernst Helmreich

College Historian and Professor Emeritus of History
B.A., Amherst College, 1958; M.A., Princeton University, 1960; Ph.D., 1961. Assistant Professor of History, 1962-66; Associate Professor, 196672; Professor, 1972-98; Dean of Instruction, 1966-81; Secretary of the
Faculty, 1991-94; Professor Emeritus of History, 1998-; College
Historian, 1998-.

## Pamela Higham

Assistant to the President
Secretary, Counseling Center, 1998-99; Human Resources Assistant, Human Resources, 1999-2001; Secretary, Dean of Students, 2001-04; Office Manager, Public Affairs, 2004-09; Program Coordinator, Center for Political Participation, 2007-09; Administrative Assistant to the Vice President of Enrollment and Communications, 2009-10; Assistant to the President, 2010-.

## ACCEL

## CAREER SERVICES

## Michaeline Shuman

Director of Career Services
B.A., Albright College, 1989; M.S., Alfred University, 1991. Director of Career Services, 2006-

## Jim Fitch

Associate Director of Career Services
B.A., SUNY Cortland, 1986; M.A., 1998. Associate Director of Career Services, 2000-

## Eva Kramer

Assistant Director of Career Services and Leadership Coordinator B.S., University of Texas, 2004; M.S., Louisiana State University, 2006.

Assistant Director of Career Services and Leadership Coordinator, 2011-.

## COMMUNITY SERVICE AND SERVICE LEARNING

## David P. Roncolato

Director of Community Service
B.A., Allegheny College, 1979; M.A., Creighton University, 1987; Ph.D., Duquesne University, 2004. Catholic Campus Minister, $1987-$ 2000; Director of Community Service, 1994-.

## Marisa Frey

AmeriCorps VISTA Bonner Program Coordinator
B.A., Allegheny College, 2010. AmeriCorps VISTA Bonner Program Coordinator, 2010-.

## Olivia Lang

Davies Program Coordinator
B.S., Allegheny College, 2011. Davies Program Coordinator. 2011-.

## Erin O'Day-Frye

AmeriCorps Vista Program Coordinator
M.A., Edinboro University, 2008. AmeriCorps Vista Program Coordinator, 2009-.

## Jamie Williams

Assistant Director of Community Service M.A., St. Bonaventure University, 2004. Assistant Director of Community Service, 2008-

## INTERNATIONAL PROGRAMS AND SERVICES

## Jenny Kawata

Director of International Programs and Services
B.S., Slippery Rock University, 1993; M.A., Indiana University of Pennsylvania, 2000. Director of International Programs and Services, 2008-.

## Sarah Knight

Assistant Director of International Programs and Services, Area Coordinator B.S., Wake Forest University, 2007; M.S., University of Tennessee, Knoxville, 2010. Assistant Director of International Programs and Services, Area Coordinator, 2010.

## PRE-PROFESSIONAL STUDIES

## Kirsten Peterson

Director of Pre-Professional Studies and Instructor in Chemistry B.S., Allegheny College, 1978; M.A., 1987. Instructor in Chemistry, 1984-; Health Professions Advisor, 1992-2008; Director of PreProfessional Studies, 2008-.

## Admissions

## Jennifer D. Winge

Dean of Enrollment
B.A., Allegheny College, 1996. Admissions Counselor, 1996-97;

Assistant Director of Admissions, 1997-98; Senior Assistant Director of Admissions, 1998-2000; Associate Director of Admissions, 2001-06; Director of Admissions, 2006-2010; Dean of Enrollment and Financial Aid, 2010-11; Dean of Enrollment, 2011-.

## Jason Andracki

Senior Assistant Director of Admissions
B.A., Carnegie Mellon University, 1997. Admissions Counselor, 19992001; Assistant Director of Admissions, 2001-06; Senior Assistant Director of Admissions, 2006-.

## Bob Baldwin

Associate Director of Admissions
B.A., Allegheny College, 2003; M.B.A., University of Colorado, 2004.

Admissions Counselor, 2005-2008; Senior Assistant Director of
Admissions, 2008-11; Associate Director of Admisssions, 2011-.

## Linda Gibson Clune

Senior Associate Director of Admissions
B.A., Allegheny College, 1986. Admissions Counselor, 1986-87;

Assistant Director of Admissions, 1987-90; Associate Director of Admissions, 1990-94; Senior Associate Director of Admissions, 1994-
95; Associate Director of Admissions, 2003-06; Senior Associate Director of Admissions, 2006-.

## Rachel Dingman

Admissions Counselor and Hillel Advisor
B.A., Allegheny College, 2008. Admissions Counselor and Hillel Advisor, 2010-.

## Penny Frank

Associate Director of Enrollment Communications
B.A., Kent State University, 1999. Graphic Designer, 2003-07;

Assistant Director of Public Affairs, 2007-10; Associate Director of Public Affairs, 2010-11; Associate Director of Enrollment Communications, 2011-.

## Sarah Holt

Assistant Director of Admissions
B.S., Penn State University, 1986. Assistant in Admissions, 2001-06;

Assistant Director of Admissions, 2006-

## Jesse Lavery

Digital Media Specialist
Web Content Coordinator, 2010-11; Digital Media Specialist, 2011-

## Derek Li

Graphic Designer
Graphic Designer. 2010..

## Rachel Mallory

Senior Assistant Director of Admissions
B.A., Mount Holyoke College, 2007. Admissions Counselor, 2007-09;

Assistant Director of Admissions, 2009-11; Senior Assistant Director of Admissions, 2011-.

## John McGeoch

Admissions Counselor
B.A., Rhodes College, 2010. Admissions Counselor, 2011-.

## Katie Meier

Associate Director of Admissions
B.A., Allegheny College, 2002. Admissions Counselor, 2004-06;

Assistant Director of Admissions, 2006-2008; Associate Director of Admissions, 2008-.

## Athletics and Recreation

## Ron Clements

Director of Facilities and Equipment
Associate Degree, State University of New York Empire State College. Director of Facilities and Equipment, 2006-.

## Kate Costanzo

Head Women's Basketball Coach
B.S., Pennsylvania State University-The Behrend College, M.A., Indiana University of Pennsylvania. Assistant Women's Basketball Coach, 2007-07; Interim Head Women's Basketball Coach, 2007-08; Head Women's Basketball Coach, 2008-.

## Erin Detwiler

Head Swimming/Diving Coach
B.A., Kenyon Colleger, 1999; M.A., UW - Milwaukee, 2003. Head

Swimming/Diving Coach, 2010-.

## Laura Dillaman

Assistant Athletic Trainer
B.S., University of Pittsburgh - Bradford, 2004; M.S., California

University of Pennsylvania, 2005. Assistant Athletic Trainer, 2011-.

## Jim Driggs

Head Men's Basketball Coach
B.A., Hamilton, 2001; M.A., University of Rochester, 2010. Head Men's Basketball Coach, 2010-.

## Jeffrey N. Groff

Men's and Women's Golf Coach
B.S., Millersville University of Pennsylvania, 1983; M.A., Kent State University, 1985. Assistant to the Director of Athletics, 1986-92; Manager of Athletic Operations, 1992-98; Women's Soccer Coach, 1998-2002; Associate Director of Athletics, 1998-2006; Men's and Women's Golf Coach, 2002-.

## Stephanie P. Janice

Head Women's Lacrosse Coach
B.A., Johns Hopkins University, 2007; M.Ed., Goucher College, 2010. Head Women's Lacrosse Coach, 2010-.

## James Kramer

Director of Athletic Communications and Marketing
B.A., Marshall University, 2000. Director of Athletic Communications and Marketing, 2010-.

## Jared Luteran

Head Men's and Women's Tennis Coach
B.A., West Virginia Wesleyan College, 1998. Head Men's and Women's Tennis Coach, 2003-.

## Mark Matlak

Head Football Coach
B.A., Allegheny College, 1978. Head Football Coach, 2002-.

## Angelo Panzetta

Head Men's Soccer Coach
B.S., Rochester Institute of Technology, 1989; M.A., Syracuse University, 2000. Head Men's Soccer Coach, 2001-.

## James D. Plunkett

Head Athletic Trainer
B.S., Cornell University, 1977; Graduate degree, Sheridan College,
1979. Head Athletic Trainer and Administrative Assistant in Athletics, 1983-2005; Head Athletic Trainer, 2005-.

## Mandy Prusia

Assistant Athletic Director-Compliance and Internal Operations
Loan Coordinator, Financial Aid Office, 1986-89; Purchasing Coordinator, Business Office, 1989-96; Secretary, Department of Athletics, 1996-2000; Office Coordinator, Department of Athletics, 2002-03; Office Manager, Department of Athletics, 2003-04; Assistant Athletic Director, 2004-.

## William Kent Ross

Associate Director of Athletics and Recreation Services
B.S., Slippery Rock University, 1984; M.S., 1989. Head Coach, Men's/

Women's Track \& Field, 1996-; Head Coach, Women's Cross Country, 1996-, Head Coach, Men's Cross Country, 1997-10; Associate Director of Athletics and Recreation Services, 2010-.

## Sandra Sanford

Head Softball Coach
B.S., University of Connecticut, 1995; M.A., Muskingum College,
2002. Head Softball Coach, 2003-.

## Bridget A. Sheehan

Head Volleyball Coach
B.A., Slippery Rock University, 1977; M.S., 1990. Head Volleyball Coach, 1987-; Assistant Softball Coach, 1997-99.

## Danielle Stuart

Assistant Athletic Trainer
B.S., Clarion University, 2005; M.S., California University of Pennsylvania, 2007. Assistant Athletic Trainer, 2008-.

## Kelly Swiney

Head Baseball Coach
B.S., Allegheny College, 1991; M.S., California University of Pennsylvania, 2008. Head Baseball Coach. 2008-.

## Michael J. Webber

Head Women's Soccer Coach
B.A., College of the Holy Cross, 1988. Head Women's Soccer Coach, 2005-.

## Audio Visual Services

## Scott Choffel

Technical Director for Theatre and Audio Visual Services
B.A., Allegheny College, 1972. Technical Director for Theatre and Audio Visual Services, 2005-.

## Bookstore

Peter M. LeBar
Manager of the College Bookstore
B.A., Oberlin College, 1976. Manager of the College Bookstore, 1987-.

## Office of Campus Communications

## Kathy Roos

Director of Campus Communications
B.A., Defiance College, 1977. Public Affairs Writer/Editor, 1997; Editor, Allegheny Magazine, 1999-2011; Assistant Director, 2003-05; Director of Public Affairs, 2005-2008; Assistant to the President for Communications and College Editor, 2008-; Director of Campus Communications, 2011-.

## Tracy Stevenson

Graphic Designer
B.A., Rutgers University, 1993. Graphic Designer, 2007-.

## Bernadette Wilson

Publications/Project Manager
Secretary to Director of Publications, 1984-95; Publications Manager, 1995-2000; Publications/Project Manager, 2000-.

## Campus Safety $\mathcal{E}$ Security

## Jeff Schneider

Assistant Dean of Students, Director of Safety and Security
B.A., Gannon University, 1978; M.S., Mercyhurst, 1987; Ph.D.,

University of Pittsburgh, 2009. Assistant Dean of Students, Director of Safety and Security, 2010-.

## Conference and Event Services

## Timothy J. Cooper

Director, Conference and Event Services
B.S., West Virginia University, 1984; M.A., Carnegie Mellon University, 1992. Director, Conference and Event Services, 2009-.

## Rebecca A. Wiler

Assistant Director, Conference and Event Services B.A., Pennsylvania State University, 1993; M.A.S.S., Edinboro

University, 2010; Assistant Director, Conference and Event Services, 2007-

## Counseling Center

## Yvonne Eaton-Stull

Director/Counselor
B.A., Clarion University, 1990; M.A., Boston College, 1993. Director/ Counselor, 2008-.

## Dale E. Humes

Counselor
B.A., Edinboro University of Pennsylvania, 1987; M.A., Edinboro University, 1989. Counselor, 2005-.

## Toshia L. Johnson

Counselor
B.A., University of Northern Iowa, 1998; M.S., Western Illinois University, 2002. Counselor, 2006-.

## Office of the Dean of the College

## Linda C. DeMeritt

Dean of the College, Professor of German
B.A., Michigan State University, 1975; M.A., University of Illinois, 1977; Ph.D., Michigan State University, 1982. Assistant Professor of Modern Languages, 1982-89; Associate Professor, 1989-96; Professor, 1996-; Holder of National Endowment for Humanities Chair, 19972000, Dean of the College, 2003-.

## Amelia J. Carr

Secretary of the Faculty, Associate Professor of Art, Senior Faculty in Women's Studies
B.A., Ohio State University, 1976; Ph.D., Northwestern University, 1984. Assistant Professor, 1987-94; Associate Professor, 1994-; Secretary of the Faculty, 2010-.

## Richard Holmgren

Director of the Learning Commons; Chief Information Officer; Associate Dean of the College
B.A., Gustavus Adolphus College, 1981; M.A., Kent State University, 1983; Ph.D., Northwestern University, 1988. Assistant Professor of Mathematics, 1988-95; Associate Professor, 1995-; Associate Dean of the College, 1999-; Director of the Learning Commons, 2004-; Executive Director of the Learning, Information and Technology Services, 200610. Chief Information Officer, 2010-.

## Lawrence T. Potter, Jr.

Chief Diversity Officer, Associate Dean of the College, Professor of English B.A., Stillman College, 1995; M.A., University of Missouri-Columbia, 1996; Ph.D., 1999. Chief Diversity Officer, Associate Dean of the College, Professor of English, 2010-.

## Ann Elizabeth Sheffield

Associate Dean of the College, Registrar, Professor of Chemistry B.A., Johns Hopkins University, 1981; Ph.D., University of Maryland, 1988. Assistant Professor of Chemistry, 1988-95; Associate Professor, 1995-2004; Professor, 2004-; Registrar and Associate Dean of the College, 2007-.

## Benjamin H. Slote

Associate Dean of the College, Associate Professor of English
B.A., Northwestern University, 1981; M.A., Yale University, 1984; M.Phil, 1985; Ph.D., 1990. Assistant Professor of English, 1990-97; Associate Professor, 1997-; Associate Dean of the College, 2008-.

## Samantha A, Stephens

Assistant to the Dean of the College
B.A., Allegheny College, 1998. Academic Secretary, Communication Arts Department, 1989-2008; Academic Secretary, History Department, 1993-2008; Assistant to the Dean of the College, 2008-.

## Office of Student Life

## Joseph J. DiChristina

Dean of Students
B.S., Beloit College, 1987; M.A., The University of Akron, 1996.

Associate Dean of Students, 1999-2001. Dean of Students/Director of ACCEL, 2001-03, Dean of Students, 2003-.

## Jennifer Foxman

Assistant Dean of Students
B.A., Allegheny College, 1989. Assistant Director of Residence Life, 1992-95; Assistant Director of Career Services, 1995-98; Assistant
Director of ACCEL, 1998-2003; Assistant Dean of Students, 2003-.

## Joseph Hall

Assistant Director of Residence Life/Student Conduct Officer
B.S., Slippery Rock University, 2004; M.A. 2007. Area Coordinator, 2007-09, Assistant Director of Residence Life/Student Conduct Officer, 2009.

## Kazi Joshua

Assistant Dean of Students for Residence Life
M.A., Yale University, 1995. Assistant Dean of Students for Residence Life. 2009-

## Gretchen H. Kerr

Assistant to the Dean of Students
BFA, Otterbein College, 1991. Assistant Director of Career Services, 2001-04; Assistant Director of ACCEL/Coordinator of Leadership Programs, 2004-07; Interim Coordinator for International Programs, 2008; Assistant to the Dean of Students, 2009-.

## Sarah Knight

Assistant Director of International Programs and Services, Area Coordinator B.S., Wake Forest University, 2007; M.S., University of Tennessee, Knoxville, 2010. Assistant Director of International Programs and Services, Area Coordinator, 2010-.

## Jacquelyn Berlin Kondrot

Associate Dean of Students for Wellness Education
B.A., Edinboro State College, 1973; M.Ed., 1976; M.A., Bowling Green State University, 1976; C.A.G.S., University of Illinois, 1996. Project 101 Counselor, 1981-82; Project 101 Director and Counselor, 1983-85; Assistant to the Dean of the College, 1983-85; Acting Associate Dean of Students, 1985-87; Interim Assistant Director, Career Services, 1995; Counselor, 1995-98; Director of the Counseling Center, 1998-2006; Associate Dean of Students for Wellness Education, 2006-.

## Maureen Muckinhaupt

Area Coordinator
B.A., Hiram College, 2006; M.S., Indiana University, 2009. Area Coordinator, 2009-

## Betsy Scarpaci

Area Coordinator
B.A., Blackburn College, 2007; M.S., Creighton University, 2010. Area

Coordinator, 2010.

## Office of Development and Alumni Affairs

## Marjorie S. Klein

Vice President for Development and Alumni Affairs
B.A., Gannon University, 1985. Director of Development and Major Gifts, 2000-05; Associate Vice President for Development and Alumni Affairs, 2005-06; Vice President for Development and Alumni Affairs, 2006-.

## Ann H. Areson

Associate Vice President for Foundation and Corporate Relations and Donor Relations
B.A., Allegheny College, 1967; M.I.A., School for International Training, 1972; Ph.D., Syracuse University, 1992. Director of Foundation and Corporate Relations, 1999-11; Executive Director of Development, 2008-10; Associate Vice President for Foundation and Corporate Relations and Donor Relations, 2011-.

## Andrea Bloodworth

Regional Advancement Officer
B.S., Nebraska Wesleyan University, 2000; M.S., University of Chicago, 2003. Regional Advancement Officer, 2008-.

## Diana G. Brautigam

Director of Institution and Faculty Support
B.A., Allegheny College, 1980; M.A., Indiana University, 1988.

Assistant Director of Foundation and Corporate Relations, 2000-08; Associate Director of Foundation and Corporate Relations, 2008-10; Director of Advancement Communication, 2008-10; Director of Institution and Faculty Support, 2011-.

## D. Tiffany Cipollone

Director of Donor Relations
B.A., Muskingum College, 1996. Development and Donor Relations Officer, 2001-02; Donor Relations Officer, 2002-07; Director of Donor Relations, 2007-.

## Meghan L. Cressman

Regional Advancement Officer
B.S., The Pennsylvania State University, 2006. Advancement Officer, 2008-11; Regional Advancement Officer, 2011-.

## Keri Fadden

Associate Director of Alumni Affairs
B.S., State University of New York at Fredonia, 1998; M.A., Bowling Green State University, 2000. Assistant Director of Student Activities, 2000-04; Assistant Director of the Learning Commons, 2004-2007; Associate Director of the Learning Commons, 2007-11; Associate Director of Alumni Affairs, 2011-.

## Joseph F. Fetcko

Senior Advancement Officer
B.S., Pennsylvania State University, 1972. Major Gifts Officer, 2001-

2008; Regional Advancement Officer, 2008-09; Senior Advancement Officer, 2009-.

## Julianne Weibel Foltz, Esq.

Regional Advancement Officer and Gift Planning Specialist B.S., Indiana University of Pennsylvania, 1987; J.D., University of Dayton School of Law, 1990. Major Gifts Officer, 2001-02; Director of Gift Planning, 2002-07; Regional Advancement Officer and Gift Planning Specialist, 2007-.

## Pamela Todd Fox

Director of Development Resources
B.A., Albion College, 1971. Director of Development Research, 1990-

92; Director of Research and Donor Relations, 1992-94; Director of Development Resources, 1994-.

## Philip R. Foxman

Associate Vice President for Development and Alumni Affairs
B.A., Allegheny College, 1990. Assistant Dean of Students, 1993-95; Director of Student Activities, 1995-99; Director of Alumni Affairs, 1999-11; Associate Vice President for Development and Alumni Affairs, 2011-.

## Matt Gullatta

Assistant Director of Development Resources
B.A., The College of Wooster, 2003. Assistant Director of Development Resources. 2007-.

## Sally A. Barrett Hanley

Director of Reunion Giving
B.A., Allegheny College, 1992; M.Ed., State University of New York at Buffalo, 1994; Ed.D., University of Pittsburgh, 2003. Major Gifts Officer, 2000-04; Development Officer, 2004-07; Director of Annual and Reunion Giving, 2007-11; Director of Reunion Giving, 2011-.

## Brian Martone

Graphic Designer
Associate Degree (Graphic Design), Pittsburgh Technical Institute, 1998. Graphic Designer, 2011-.

## Janice McInally

Development Office
B.S., University of Akron, 1986. Assistant in Admissions, 1996 -2006; Assistant Director of Admissions, 2006-10.

## Jonathan Megill

Prospect Analyst
B.A., University of Virginia, 2003; M.S., University of Kentucky, 2004; M.A., Pennsylvania State University, 2011. Prospect Analyst, 2011-.

## Melissa C. Mencotti

Director of Gift Planning
B.A., Edinboro University of Pennsylvania, 1986; M.A., Indiana

University, 2011. Director of Development Research, 2000-01; Director of Prospect Development, 2001-2008; Director of Gift Planning, 2008-.

## Sueann J. Kaster Mercier

Assistant to the Vice President and Campaign Manager
Secretary, Alumni Affairs, 1999-2007; Secretary to the Vice President for Development, 2007-09; Assistant to the Vice President for Development, 2010-11; Assistant to the Vice President and Campaign Manager, 2011-.

## Phil Ness

Regional Advancement Officer
B.A., Lafayette College, 1978. Head Men's Basketball Coach, 1989-

2002; Major Gifts Officer, 2003-08; Regional Advancement Officer, 2008.

## Philip E. Scrimenti

Regional Advancement Officer
B.A., Gannon University, 1970; MED, Gannon University, 1974.

Regional Advancement Officer, 2011-.

## Robert M. Tuttle

Senior Advancement Officer
B.A., Oberlin College, 1969. Director of Capital Gifts, 1982-85;

Director of Major Gifts, 1985-2000; Director of Principal Gifts, 200006; Senior Advancement Officer, 2006-

## Josh Tysiachney

Associate Vice President for Advancement Communication
B.A., Edinboro University of Pennsylvania, 1999; M.A., 2001. Assistant Director of Alumni Affairs, 2000-03; Development Researcher, $2003-$ 05; Assistant Director of Prospect Development, 2005-06; Web Communications Coordinator and Co-Editor, Allegheny Magazine, 2006-08; Assistant Director of Public Affairs, 2008-10; Director of Public Affairs, 2010-11; Associate Vice President for Advancement Communication, 2011-.

## Jennifer Wardwell

Regional Advancement Officer
B.A., University of Connecticut, 1997. Athletics Special Projects Coordinator, 2003-05; Assistant Athletic Director, 2005-07; Advancement Officer, 2007-08; Regional Advancement Officer, 2008-

## Bruce Q. Whitehair

Associate Vice President for Advancement
B.S., Edinboro University of Pennsylvania, 1973, CFRE, 1995.

Associate Vice President for Advancement, 2011-.

## Tamara Wyrich

Assistant Director of Annual and Reunion Giving
B.A., Edinboro University, 2005; M.A., 2006. Advancement Officer, 2007-08; Assistant Director of Annual and Reunion Giving, 2008-.

## Lisa M. Young

Donor Relations Officer
B.S., Slippery Rock University, 1990. Secretary, Foundations and Corporate Relations, 1998-2000; Office Coordinator, Foundations and Corporate Relations, 2000-10; Donor Relations Officer, 2011-

## Finance and Planning

## David W. McInally

Executive Vice President and Treasurer
B.S., The University of Akron, 1983; M.A., 1989; Ed.D, University of Pittsburgh, 2004. Assistant Dean of Students, 1986-90; Associate Dean, 1990-92; Interim Dean, 1992-93; Dean, 1993-2001; Secretary of the College, 2001-06; Vice President for Finance and Planning and
Treasurer, 2006-10, Executive Vice President and Treasurer, 2010-.

## Larry Lee

Senior Associate Vice President of Finance and Planning
B.S., University of South Colorado, 1991; M.A., University of Denver, 1996. Director of Athletics and Recreation, 2002-06; Associate Vice President for Finance and Planning, 2006-10; Senior Associate Vice President of Finance and Planning, 2010-.

## Financial Aid

## Sheryle A. Proper

Associate Dean of Enrollment and Director of Financial Aid
B.S., Allegheny College, 1998; M.B.A., Pennsylvania State University, 2005. Assistant Director of Student Aid, 1999-2001; Associate Director of Financial Aid, 2001-04; Director of Financial Aid, 2004-10; Associate Dean of Enrollment and Financial Aid, 2010-11; Associate Dean of Enrollment and Director of Financial Aid, 2011-.

## Natasha N. B. Eckart

Assistant Director of Financial Aid
B.A., Allegheny College, 2010. Assistant Director of Financial Aid, 2011-

## Joseph Winge

Associate Director of Financial Aid
B.A., University of Pittsburgh, 1998. Assistant Director of Admissions, 2001-06; Associate Director of Admissions, 2006-2008; Associate Director of Admissions and Financial Aid, 2008-2010; Associate Director of Financial Aid and Admissions, 2010-11; Associate Director of Financial Aid, 2011-.

## Financial Services

## Linda S. Wetsell

Associate Vice President of Finance
B.A., Thiel College, 1983. Director of Budget and Treasury Management Operations, 2000-2007; Director of Financial Services, 2007-10; Associate Vice President of Finance, 2010-.

## Kathleen A. Copeland

Director of Finance
B.S., Edinboro University, 2000. Budget and Treasury Accountant

Analyst, 2000-2007; Associate Director of Financial Services, 2007-10, Director of Finance, 2010-.

## Jodi Millin

Financial Systems Coordinator
B.S., Clarion University, 1990. Special Projects Manager, 2003-2007; Financial Systems Coordinator, 2007-.

## Mary Jane Webb

Accounting Manager
Secretary to the Director of Financial Aid, 1967-74; Accounting Clerk, 1975-95; Accounting Office Manager, 1995-2004; Accounting Manager, 2004-

## Health Services

## Susan Plunkett

Director of Health Services
B.S., Cornell University, 1977; B.S.N., Cornell University-New York Hospital School of Nursing, 1979; M.S.N., University of Pittsburgh, 1986. Director of Health Services, 1989-.

## Gaynel Sickles

Nurse Practitioner
B.S., Edinboro University; M.S., University of Pittsburgh, 1996. Nurse Practitioner, 1998-

## Human Resources

## Patricia Ferrey

Director of Human Resources
B.S., Youngstown State University, 1974; M.S., Loyola University of Chicago, 1988. Director of Human Resources, 1998-.

## Andrea Cooley

Payroll Manager
Payroll/Human Resources Coordinator, 2007-11; Payroll Manager, 2011-.

## Christi A. Pendolino

Assistant Director of Human Resources
B.A., Mercyhurst College, 1989. Cashier, 1991-95; Payroll Coordinator, 1995-2001; Assistant Director of Human Resources, 2002-.

## Institutional Diversity, Equity $\mathcal{E}$ Access

## Lawrence T. Potter, Jr.

Chief Diversity Officer, Associate Dean of the College, Professor of English B.A., Stillman College, 1995; M.A., University of Missouri-Columbia, 1996; Ph.D., 1999. Chief Diversity Officer, Associate Dean of the College, Professor of English, 2010-.

## CENTER FOR INTERCULTURAL ADVANCEMENT AND STUDENT SUCCESS

## Steven Canals

Associate Director for Gender and Sexual Orientation
A.A., SUNY Cobleskill, 2002; B.A., Binghamton University, 2005; M.A., 2008. Associate Director for Gender and Sexual Orientation, 2011.

## Tahirah Jordan

Assistant Dean and Director of the Center for Intercultural Advancement and Student Success
B.S., Hampton University, 2004; J.D., North Carolina Central

University School of Law, 2007. Assistant Director of Admissions and Coordinator of Multicultural Recruitment, 2008-11; Assistant Dean and Director of the Center for Intercultural Advancement and Student Success, 2011-.

## OFFICE OF THE CHAPLAIN

## Jane Ellen Nickell

Chaplain
B.A., West Virginia Wesleyan College, 1981; M.Div., Vanderbilt Divinity School; Ph.D., Drew University, 2010. Chaplain, 2006-.

## Institutional Research

## Marian Sherwood

Director of Institutional Research
B.S., Edinboro State University, 1975; M.S., Iowa State University, 1979. Data Warehouse Coordinator, 1996-99; Director of Institutional Research, 1999-.

## Elizabeth Rhoades

Institutional Research Analyst
A.B.A., Pennsylvania State University, 1982. Gift Recorder, 1988-91; Accounts Receivable Coordinator, 1991-92; Accounting Assistant, 19922002; Institutional Research Analyst, 2002-.

## Learning, Information, and Technology Services

## Richard Holmgren

Director of the Learning Commons; Chief Information Officer; Associate Dean of the College
B.A., Gustavus Adolphus College, 1981; M.A., Kent State University, 1983; Ph.D., Northwestern University, 1988. Assistant Professor of Mathematics, 1988-95; Associate Professor, 1995-; Associate Dean of the College, 1999-; Director of the Learning Commons, 2004-; Executive Director of the Learning, Information and Technology Services, 200610. Chief Information Officer, 2010-.

## ADMINISTRATIVE INFORMATION SERVICES

## Richard Alan Metzger

Director of Administrative Computing Services
B.S., Bucknell University, 1967. Director of Data Processing, 1967-73;

Director of the Computer Center, 1974-89; Manager of Administrative Computing, 1989-92; Director of Administrative Computing Services, 1992-

## Susan Fenton

Programmer/Analyst
A.B., Stonehill College, 1976; M.S., University of Notre Dame, 1978.

College Webmaster/Instructional Technologist, 1997-2002; Instructional Technologist, 2002-2008; Programmer/Analyst. 2008-.

## Peter Gifford

Systems Manager and Programmer/Analyst
B.S., Muhlenberg College, 1977. Programmer/Analyst, 1977-80;

Assistant Director of the Computer Center, 1980-89; Systems Manager and Programmer/Analyst, 1989-.

## Jason Ramsey

Assistant Director for Digital Communications
B.A., Allegheny College, 1998. Systems Analyst, 2003-11; Assistant Director for Digital Communications, 2011-.

## Christine Rick

Programmer/Analyst
Programmer/Analyst, 2011-.

## LEARNING COMMONS

## John Mangine

Student Disability Services Coordinator/Associate Director of the Learning Commons
B.S., State University of New York College at Buffalo, 2001; M.S., 2004. Associate Director of the Learning Commons, 2006-; Student Disability Services Coordinator, 2009-.

## LIBRARY

## Linda G. Bills

Director of the Library
B.A., University of California, 1968; M.A., University of Hawaii, 1969;
M.S., Case Western Reserve University, 1972. Interim Director of the Library, 2004-06; Director of the Library, 2006-.

## Ruth Ash

## Archivist

B.A., Allegheny College, 1985; M.L.I.S., University of WisconsinMilwaukee, 1987. Archivist, 2001-.

## Alan E. Bartlett

Systems Librarian
B.A., Allegheny College, 1974; M.Div., Asbury Theological Seminary, 1978; M.S.L.S., Clarion University of Pennsylvania, 1995. Acquisitions Assistant, 1978-83; Head of Circulation and Reserve Services, 1983-96; INNOPAC System Manager, 1992-; Circulation Services/Systems Librarian, 1996-2001; Systems Librarian, 2001-.

## Cynthia R. Burton

Reference Librarian
B.A. Macalester College, 1975; M.S.L.S., University of Illinois, 1976.

Data Services Librarian, 1982-2000; Reference Librarian, 2000-.

## Michael Hurley

## Instructional Technologist

B.A., Edinboro University, 1998; Master of Library and Information Science, University of Pittsburgh, 2006. Instructional Technologist, 2008-.

## Brian D. Kern

Head of Technical Services
B.M., Grove City College. 1997; M.L.I.S. , 2000. Head of Technical Services, 2008-.

## Pamela J. Majors

Head of Circulation
B.S., University of Maine at Augusta, 2006. Electronic Reserves Specialist, 2003-05; Head of Circulation, 2005-.

## Helen Oliynyk McCullough

Instructional Technologist
B.A., Allegheny College, 1974; M.Ed. in Instructional Technology,

Edinboro State College, 1979. Assistant to Catalogue Librarian, 1975-
85; Audio-Visual Specialist, 1985-2004; Coordinator of Library Media Acquisitions, 2004-2007; Instructional Technologist, 2004-.

## Donald Anthony Vrabel

## Reference Librarian

B.A., University of Pittsburgh, 1966; M.A.T., 1968; M.L.S., 1974.

Reference Librarian, 1974-.

## Jane F. Westenfeld

## Reference Librarian

B.S., State University of New York (Buffalo), 1985; M.L.S., 1989. Reference Librarian, 1989-.

## TECHNICAL AND NETWORK SERVICES

## Tim W. Hunter

Director of Technical and Network Services
A.D., Penn-Technical Institute, 1980. Technician, 1985-88; Manager of Technical Support, 1988-89; Manager of Technical Services and Networking, 1989-90; Director of Technical and Network Services, 1990-; Executive Director of Computing, 1993-97.

## Fernando A. Hernandez

Microsoft Windows System Administrator
Associate Technical Degree, Erie Institute of Technology, 2006.
Microsoft Windows System Administrator. 2008-.

## Doug Tomer

Senior Systems Manager
B.S., Clarion University, 1993. Senior Systems Manager, 2007-.

## David Wagner

Network and Systems Supervisor
B.S., Allegheny, 2008. Network and Systems Supervisor, 2009-.

## Barton K. Wineland

Manager of Technical and Network Services
A.D., Penn-Technical Institute, 1980. Hardware Technician, 1990-91;

Manager of Technical and Network Services, 1991-.

## USER SERVICES

## James E. Fadden

Director of User Services
B.S. Ed., State University of New York College at Fredonia, 1996;
M.Ed., Gannon University, 2000. Manager of Training/Instructional

Technologist, 2000-2007; Director of User Services, 2007-.

## Tim Healy

Technology Manager
B.S., Florida Institute of Technology, 1980. Technician, 1994-2007;

Technology Manager, 2007-.

## Andrew McMillan

User Support Specialist
B.A., Mercyhurst, 2008. User Support Specialist. 2009-.

## Philip L. Reinhart

User Support Specialist and Resnet Technician
A.D., Electronic Institute, 1979. Hardware Technician, 1991-2000;

Help Desk Manager, 2000-2007; User Support Specialist and Resnet Technician, 2007-.

## Douglas M. Varee

Service Desk Supervisor
B.S., Business Administration, 1989. User Support Specialist, 2007-09; Service Desk Supervisor, 2009-.

## Mailing Services

Deborah K. Legnosky
Manager of Mailing Services
Post Office Clerk, 1981-2007; Manager of Mailing Services, 2007-.

## Physical Plant

## Clifford K. Willis

Director of Physical Plant
B.S., United States Military Academy (West Point), 1972; M.S.,

University of Illinois, 1978; Professional Engineer (PE), Virginia, 1980;
Pennsylvania, 1990. Associate Director of Physical Plant, 2008-10;
Director of Physical Plant, 2010-.

## Brian Gillette

Assistant Director of Physical Plant
B.S., Pennsylvania College of Technology, 2003. Clerk of the Works,

2006-2008; Assistant Director of Physical Plant for Construction, 2008-
10; Assistant Director of Physical Plant, 2010-.

## Playshop Theatre

## Sarah Russell

Costume Supervisor/Designer
B.A., Bowling Green State University, 2005; M.F.A., Kent State

University, 2009. Costume Supervisor/Designer, 2009-.

## Printing Services

## Mark Pritchard

Manager of Printing Services
Assistant Manager of Printing Services and Pre-press Operations, 2003-
06; Manager of Printing Services, 2006-

## Registrar

## Ann Elizabeth Sheffield

Registrar, Associate Dean of the College, Professor of Chemistry
B.A., Johns Hopkins University, 1981; Ph.D., University of Maryland,
1988. Assistant Professor of Chemistry, 1988-95; Associate Professor,

1995-2004; Professor, 2004-; Registrar and Associate Dean of the
College, 2007-.
Deborah S. Zinz
Associate Registrar
Assistant to the Registrar, 1992-97; Associate Registrar, 1997-.

## Student Involvement

## Gretchen Symons

Director of Student Involvement
B.A., Lock Haven University, 1993; M.A., Regent University, 1997.

Director of Student Involvement, 2008-.

## Kate Gullata

Assistant Director of Student Involvement
B.A., College of Wooster, 2003; M.Ed., Purdue University, 2007.

Assistant Director of Student Involvement, 2007-.

# Standing Committees of the Faculty 

## ACADEMIC STANDARDS AND ACHIEVEMENTS

- Lockridge (2), Herrman (2), Garcia (1), Bailey

ACADEMIC SUPPORT

- D'Amico (2), Gehring (2), Hernandez (2), Hersh


## ANIMAL RESEARCH

■Richter (2), Cross (1.5)
ASSESSMENT
■Rutledge (2), Murphree (2), Dearden

## CAMPUS LIFE AND COMMUNITY STANDARDS

- Nessett (1), Miller (1), Gardner, Paulson, Rankin

CURRICULUM COMMITTEE
■ Statman (2), Afrasiabi (2), Silva (2), Clark (1.5), Wissinger (1), Caputo

## DIVERSITY AND EQUITY

■ Miller (2), Forts (1), Deckert, Quinn, Shapiro, Weisman
FACULTY COUNCIL
${ }_{\square}$ Pinnow (2), Crozier (2), Reeck (2), Wesoky (2), Mumme (1), Watkins (1), French (1)

## FACULTY REVIEW

Buck (2.5), Coates (2.5), Hellwarth (2.5), Onyeiwu (1.5), Jeff Hollerman (1.5), Werner (0.5)
FINANCE AND FACILITIES

- Barry (2), Pallant (2.5), Mehler (2), Knupsky (1), Coenen


## HEALTH PROFESSIONS

■ Conklin (2), Farrelly-Jackson (2), Rahman (2), Chien

## INSTITUTIONAL REVIEW BOARD

■ Lombardi (2.5), Tamashiro (2), Sickafuse (2), Searle-White (1)

## PUBLIC EVENTS

${ }_{\square}$ Roy (1), Humphreys

- Indicates committee convener.

Number in parentheses ( 0 ) indicate years of service on that committee.

## The Alumni Association

Allegheny College has approximately 22,000 living alumni who reside in all 50 states, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and 65 foreign countries. These graduates are engaged in a multitude of careers that make significant contributions to our global society.

The alumni of the College gather regularly in their local areas to participate in a variety of activities including informal social occasions, cultural events, educational programs, service projects, group excursions and other meetings that frequently involve members of Allegheny's faculty, administration and students.

Many alumni volunteer their services to various Allegheny initiatives. For example, the Volunteers in Support of Admissions (VISA) program helps to acquaint prospective college students with Allegheny. Similarly, alumni offer their time and talents to the ACCEL Office to assist with student internships and job searches and to provide alumni advising experiences with current students. They also work with the Office of Annual Giving to solicit members of the alumni body.

Two major on-campus alumni events occur annually: Homecoming in the fall and Reunion Weekend in the spring.

During Reunion Weekend, the College traditionally presents the Alumni Medal, Allegheny's oldest and most prestigious award, to a graduate whose steadfast loyalty and distinguished service merit special recognition.

Allegheny also awards annually the Blue Citation and Gold Citation to alumni whose accomplishments are noteworthy. The Blue Citation is given to individuals in recognition and appreciation of outstanding service to the College. The Gold Citation is given to individuals in recognition and appreciation of honor reflected upon the College by virtue of the outstanding achievements of those persons.

The Alumni Association is also actively involved each year in selecting the Julian Ross Award for Excellence in Teaching and the Thoburn Foundation Award for Excellence in Teaching. In addition, the Association selects the recipient of the Robert T. Sherman Distinguished Service Award, presented to an Allegheny employee who has provided significant long-term support to College programs or activities in areas not required by their job description.

The Alumni Council is the governing body of the Alumni Association and is comprised of up to 50 dedicated and loyal alumni volunteers who meet on campus twice each year. The principal purpose of the Alumni Council is to strengthen the bond between alumni and Allegheny College, its students, faculty, administration, and Board of Trustees.

## Allegheny College

## Campus Map




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Asian studies astronomy biochemistry biological and physical studies biology black studies
chemistry
Chinese studies
classical studies
communication arts
computer science
creative writing
dance \& movement studies economics
education
English
environmental geology
environmental science environmental studies environmental writing

French/French studies geology
German/German studies
history
international studies
journalism
Latin
Latin American \&
Caribbean studies
lesbian \& gay studies
managerial economics
mass communication/
media studies
mathematics
medieval \& Renaissance studies
music
music history
music performance
music theory
neuroscience
philosophy
physics
political science
pre-dental
pre-law
pre-medicine
pre-nursing
medieval \& Renaissance
studies
music
music history
music performance
music theory
neuroscience
philosophy
physics
political science
pre-dental
pre-law
pre-medicine
pre-nursing
pre-pharmacy pre-veterinarian psychology
religious studies
science, health \& society
Spanish
theatre
values, ethics \& social action
women's studies
writing
and self-designed


[^0]:    * Psychology 154/155 - Physiological Psychology with lab INTDS 310 - Neuroscience of Music Comprehension
    INTDS 311 - Neuroscience of the Visual Arts
    INTDS 312 - Neuroscience of Dance and Movement
    INTDS 313 - Neuroscience of Language and Communication
    INTDS 315 - History of Neuroscience
    Biology 380 - Animal Physiology
    Neuroscience 405 - Neurophysiology
    Psychology 360 - Health and Psychophysiology
    Psychology 410 - Cognitive Neuropsychology
    Psychology 411 - Systems Neuroscience
    Psychology 415 - Behavioral Pharmacology
    Psychology 441 - Human Memory Processes
    * prerequisite for the advanced courses in this list

    Choose one of the following Junior Seminars:
    Biology 580 - Animal Behavior
    Biology 580 - Physiological Mechanisms of Behavior/
    Reproduction
    Psychology 555 - Behavior, Cognition and Health
    Psychology 556 - Physiological Mechanisms of Animal
    Behavior
    Psychology 557 - Behavior Mechanisms of Drug Action
    Psychology 558 - Behavioral Neuroscience
    Psychology 559 - Clinical Neuropsychology
    Senior Project I and II: (six semester credit hours)
    Neuroscience 600 (two semester credit hours) and Neuroscience 605 (four semester credit hours) to be taken in sequential semesters.

    ## Associated Faculty

    Professors Clark, Conklin, Cross, Hollerman, and Knupsky from the Department of Psychology and Professors Coates, French, Kleinschmidt, Mumme, J. Palmer and Rankin from the Department of Biology.

    ## Neuro 110 Foundations of Neuroscience I

    An introduction to the fundamental concepts of neuroscience. This course provides a foundation in the anatomy, physiology, and pharmacology of the nervous system from single cells to complex networks responsible for higher brain functions. Specific topics include molecular and cellular principles of neurobiology, electrophysiology, synaptic transmission, pharmacology and drug actions, sensory and motor systems, and disorders of the nervous system. The format of this course includes lectures, discussions, student presentations, and a research paper. We also engage in laboratory demonstrations and experiments.

    ## Neuro 120 Foundations of Neuroscience II

    An application of fundamental concepts of neuroscience to behavior and mental processes. We examine the role of neuroanatomy, neurophysiology, and neuropharmacology in complex behaviors and cognition. Specific topics include sexual behavior, circadian rhythms, motivation, emotion, visual perception, attention, language, learning, memory, and mental illness. The format of this course includes lectures, discussions, student presentations, and a research paper. We also engage in laboratory demonstrations and experiments. Prerequisite: Neuroscience 110.

