



Catalog

One Hundred Fifty-Eighth
Academic Year

2005-2006

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Information given in this catalog is correct as of the date of publication. Unexpected changes may occur during the academic year. Therefore, the listing of a course or program in this catalog does not constitute a guarantee or contract that the particular course or program will be offered during a given year.

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Purposes and Resources



Founded in 1848 to provide a liberal arts education in the Judeo-Christian humanistic tradition, Muhlenberg College is committed to the highest standards of academic integrity and excellence. It is an independent, undergraduate, coeducational institution related to the Evangelical Lutheran Church in America.

The College is located in Allentown, Pennsylvania, in the residential “west end” neighborhood, approximately 55 miles north of Philadelphia and 90 miles west of New York City. The College benefits by being situated next to Allentown’s famous park system.

MISSION STATEMENT

Muhlenberg College aims to develop independent critical thinkers who are intellectually agile, characterized by a zest for reasoned and civil debate, knowledgeable about the achievements and traditions of diverse civilizations and cultures, able to express ideas with clarity and grace, committed to life-long learning, equipped with ethical and civic values, and prepared for lives of leadership and service.

The College is committed to providing an intellectually rigorous undergraduate education within the context of a supportive, diverse residential community. We are also committed to educating the whole person through experiences within and beyond the classroom. Our curriculum integrates the traditional liberal arts with selected pre-professional studies. Our faculty are passionate about teaching, value close relationships with students, and are committed to the pedagogical and intellectual importance of research.

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Honoring its historical heritage from the Lutheran Church and its continuing connection with the Evangelical Lutheran Church in America, Muhlenberg welcomes and celebrates a variety of faith traditions on campus and encourages members of the College community to value spiritual life.

THE FACULTY

The College's most important resource in the fulfillment of its purposes is its faculty, drawn from the major universities of the United States and several other nations. Although more than three-quarters of the full-time teaching faculty at Muhlenberg hold the Ph.D. degree, research and scholarship are undertaken with special regard to their relationship to teaching and learning. Every effort is made to encourage a community of productive scholars and artists who share a passion for effective teaching.

The faculty has developed an academic program that endeavors to resolve the rich opportunities inherent in the liberal arts tradition: breadth versus depth, discipline versus flexibility, continuity versus change. As a liberal arts college, Muhlenberg offers programs in the humanities, the natural and social sciences, and in professional areas such as business, education, pre-medical and pre-theological studies, and pre-law. Flexibility is provided with sensitivity to the individual needs of the student through course options and opportunities for independent study, research and internships, as well as through a plan for self-designed majors. Through a process of long-range planning and constant review, the College strives to keep its curriculum vital and current with the rapidly changing intellectual world. The excellence and integrity of the Muhlenberg program have been recognized by Phi Beta Kappa and by some 13 additional national honoraries.

THE MUHLENBERG TRADITION

Another important resource of the College is its inheritance of traditional values developed over one and one-half centuries of institutional life. Significant in its tradition are the historic ties between the College and the Lutheran Church. The name Muhlenberg College was adopted in 1867—19 years after the College was founded—in honor of the patriarch of the Lutheran Church in America, Henry Melchior Muhlenberg. The sons of Henry Melchior Muhlenberg made important contributions to the early life of our country. General John Peter Gabriel Muhlenberg wintered at Valley Forge with George Washington; Frederick Muhlenberg was the first speaker of the United States House of Representatives; Henry Ernst Muhlenberg was one of the most eminent early American scientists and the first president of Franklin College, now Franklin and Marshall College. All of these men were clergymen who symbolized the relationship of the church to the life of the mind and the life of public service.

Muhlenberg owes much of the distinctiveness of its character and the quality of its life to the historic and continuing relationship with the church. The College believes that

its religious background enhances the community of learning within which the search for beauty and truth may flourish. These associations serve to remind us that truly liberating education is not merely a quest for salable answers in the marketplace of ideas, but a process through which people acquire self-understanding, a sensitivity to the values inherent in our Western heritage and in other cultures and an ability to improve the quality of human life.

DIVERSITY WITHIN COMMUNITY

The College is committed not only to nurturing a sense of oneness and community, but also to developing a greater diversity among its members. The College has initiated special strategies to recruit students, faculty and staff which will result in a greater diversity in the College community. The development of additions to the curriculum and student life programs as well as the presence of persons from varied ethnic and geographic backgrounds enriches and re-forms the tradition of the College.

Muhlenberg enjoys the benefits of extraordinary religious diversity within its community. This provides opportunities for dialogue and understanding truly unique among church-related institutions.

As a further sign of its commitment to fruitful interaction between diverse traditions, the College established the Institute for Jewish-Christian Understanding in 1989. Building on the College's Christian heritage and also acknowledging the significant Jewish presence that has long marked its life, the Institute is devoted to fostering deeper understanding between the two communities.

THE LEHIGH VALLEY ASSOCIATION OF INDEPENDENT COLLEGES

The extensive network of colleges in the Lehigh Valley is another significant resource for Muhlenberg. Five other liberal arts institutions are located within a few miles of the campus: Cedar Crest College, DeSales University, Lafayette College, Lehigh University and Moravian College. Muhlenberg and these institutions form a nationally recognized cooperative organization, the Lehigh Valley Association of Independent Colleges (LVAIC). Through faculty exchanges, cross-registration, joint summer sessions locally and overseas, cooperative cultural programs and other kinds of inter-institutional cooperation, LVAIC expands opportunities for Muhlenberg students. (See "LVAIC Cross Registration.")

ACCREDITATION

Muhlenberg's academic program is accredited by all of the important and appropriate agencies, including the Middle States Association of Colleges and Secondary Schools, the Department of Education of the Commonwealth of Pennsylvania, and the New York State Board of Regents. The College is on the approved list of the American

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Chemical Society. It is also a member of the Council for the Advancement and Support of Education, the American Association of Colleges of Teacher Education, the College Entrance Examination Board, the Pennsylvania Association of Colleges and Universities and the National Collegiate Honors Council.

ENVIRONMENTAL LITERACY

Muhlenberg College is a member of the Association of University Leaders for a Sustainable Future (ULSF), an international organization of signatories to the Talloires Declaration that are committed to higher education leadership for the advancement of global environmental literacy. Carrying out the principles of action in education to promote environmental stewardship, Muhlenberg College strives to unite management, faculty, staff, and students in a collaborative effort to create a sustainable institution. As a member of this global movement, Muhlenberg College fosters sustainable development through environmental literacy by integrating ecosystem and human health principles and concepts and environmental responsibility across its curricula, research, operations, and partnerships.

NON-DISCRIMINATION POLICY

Muhlenberg College does not discriminate on the basis of race, color, religion, national or ethnic origin, sex, sexual orientation, disability or age in the administration of any of its programs or activities, including admissions, financial aid, and employment.

All inquiries regarding this policy and complaints of discrimination in violation of this policy may be directed to:

Vice President, Human Resources
Third Floor, The Haas College Center
484-664-3166

Complaints will be handled in accordance with the appropriate procedures established for resolving such complaints as set forth in student, faculty and staff handbooks. In addition, inquiries concerning the application of Title IX of the Education Amendments of 1972 (prohibiting discrimination on the basis of sex) may be directed to the Assistant Secretary for Civil Rights, U.S. Department of Education.

Admission Policy



Muhlenberg College is committed to the ideal of excellent standards of scholarship. The College selects students who give evidence of ability and scholastic achievement, seriousness of purpose, quality of character and the capacity to make constructive contributions to the College community. Evidence of integrity and ethical behavior is important in the admission decision. Careful consideration is given to each applicant as a scholar and as a person, with the object being to assemble a class that is academically talented and diversified.

ADMISSION REQUIREMENTS

Admission to Muhlenberg is based upon a thorough review of each candidate's scholastic performance records and personal qualities. There is no precise admissions "formula;" various factors are carefully considered in each decision made by the Admission Committee. The following credentials are of primary importance:

SECONDARY SCHOOL RECORD

The minimum requirement is the satisfactory completion of a secondary school college preparatory program of at least 16 Carnegie units. These units should include four of English, two (preferably three) of one foreign language, three of mathematics, two (preferably three) of science, two of history and major academic electives. Exceptions to these requirements will be considered on an individual basis in cases of documented learning disability, home schooling or other exceptional situations.

The Admission Committee recognizes and encourages secondary school enrollment in accelerated and advanced placement courses. The strength of an applicant's four year secondary school program and achievement is of utmost importance in each admissions decision.

STANDARDIZED TESTS

Results of the SAT-I or ACT and SAT-II Subject Tests are evaluated in conjunction with the applicant's secondary school record. Test results are requested as an additional indication of potential for academic success at the college level. Non-U.S. citizens for whom English is not the first language should submit results of the Test of English as a Foreign Language (TOEFL).

In the spring of 1996, the Muhlenberg faculty and Board of Trustees voted to make the SAT and ACT an optional part of the admissions process on an experimental basis. Students choosing not to submit the SAT or ACT are required instead to provide a graded paper with the teacher's grade and comments on it. Such students also are required to interview with a member of the Admission staff. Students wishing to be considered for non-need merit awards and/or honors programs at Muhlenberg must submit the results of SAT or ACT testing. Additional details regarding Muhlenberg's optional standardized testing policy are available from the Office of Admission and are included in each application packet.

For students entering college in Fall 2006, the "new SAT," which includes a Writing section will be the only SAT-I offered by The College Board as of spring 2005. For students choosing to submit SAT-I scores, Muhlenberg will require the Writing section, in addition to the Critical Reading (formerly Verbal) and Mathematics sections of the test. Students submitting the ACT rather than the SAT-I are required to take the Writing section of that exam as well. In the first year of the new exam only, the College will exercise flexibility in accepting either version of the SAT-I or ACT (with or without the Writing sections). In subsequent years, since only the "new SAT" will be offered, the Writing section will be required for all students submitting standardized test scores.

PERSONAL QUALITIES

While the strength of an applicant's academic preparation is of primary consideration, the Admission Committee is also very interested in each applicant as an individual. Muhlenberg College is a small community which thrives upon the variety of contributions made by its members on all levels. The College therefore seeks students who will contribute to the campus personally as well as academically. Evidence of an applicant's personal qualities is considered through the breadth and depth of extracurricular pursuits, the personal essay and the recommendations from the student's school advisor and two teachers of major academic classes. A personal interview with a member of the Admission staff is also helpful in this regard.

APPLICATION PROCEDURES

As a charter member, Muhlenberg College participates in the Common Application program, along with over 250 other selective colleges and universities across the

country. Muhlenberg uses this form exclusively as the required application for admission.

Candidates should begin their applications during the fall of their senior year in secondary school. The complete application file must include the following:

Application for Admission (Common Application Form), completed in detail by the applicant and accompanied by the non-refundable \$45 application fee;

Secondary School Transcript, including seven semesters, (10 trimesters) and showing rank in class (if available);

School Report, completed by the applicant's guidance counselor, college advisor or headmaster;

Teacher References, completed by two instructors who have taught the applicant in major academic subjects and

Standardized Test results, forwarded to the College from the College Entrance Examination Board or American College Testing Agency. All candidates are encouraged to take the SAT-I or ACT. Additional subject tests are encouraged as a supplement to a student's high school record and other standardized test scores. These other tests should be chosen with academic experience and interest in mind and may be helpful in placing students into advanced levels of Muhlenberg work. Some students may also wish to be considered for admission under Muhlenberg's optional standardized testing policy (see "Standardized Tests"). Details of that program are available from the Office of Admission and are included in each application packet.

The SAT or ACT normally should be taken at least twice, in the junior year and again in November or December of the senior year.

It is the applicant's responsibility to see that the above-listed credentials are received by the College. *The preferred deadline for applications is FEBRUARY 15.*

Inquiries concerning admission and application procedures should be directed to the Dean of Admission and Financial Aid, Muhlenberg College, 2400 Chew Street, Allentown, PA 18104-5586.

PERSONAL INTERVIEW

Muhlenberg believes that an interview with a member of the Admission staff is of value both to the applicant and to the College. A personal interview is strongly recommended for all applicants and required for students who choose not to submit the SAT or ACT. Arrangements for all appointments should be made well in advance of the intended visit by calling the Office of Admission at (484) 664-3200. Interviews

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are conducted for seniors until February 15 (and by special appointment through March 1); juniors may plan their visits after April 1.

Campus tours are available in conjunction with the interview appointment or separately. Arrangements may be made by calling the above listed number.

EARLY DECISION

The Admission Committee will make a formal early commitment of acceptance to candidates whose qualifications indicate strong promise for successful college performance. Muhlenberg subscribes to the “first choice” option of the Early Decision Plan Agreement of the College Entrance Examination Board. This agreement stipulates that Early Decision candidates may file regular decision applications at other colleges with the understanding that they must be withdrawn if accepted under the Early Decision Plan at Muhlenberg. When filing an application for Early Decision, applicants must sign the Early Decision commitment form (included in the application packet) stating that they will abide by the provisions of the Early Decision agreement. *It is strongly recommended that students wishing to be considered for Early Decision make arrangements for a personal interview with a member of the Admission staff by January 15.*

The Early Decision application deadline is February 1. Notification will be sent from the Admission Committee between December 1 and March 1 provided all application materials are received by the February 1 deadline. Those candidates not accepted under the Early Decision plan, but whose credentials warrant further consideration, will be deferred to the regular decision applicant group where **full** review will again be made at a later date when additional information is available.

For the class entering in Fall 2005, 309 seats were filled via Early Decision.

EARLY ADMISSION

The process of Early Admission is available to students who wish to attend college following the completion of their junior year in secondary school. Each Early Admission request is judged on its individual merit and circumstances. The Admission Committee will only consider Early Admission candidates who present exceptionally strong academic preparation (as evidenced by their school record and standardized test scores) and demonstrate high levels of social maturity.

Students interested in Early Admission should follow the application procedures stated previously. *Early Admission candidates are required to arrange an on-campus interview with a member of the Admission staff prior to February 15.*

NOTICE OF ADMISSION

Muhlenberg grants admission to regular decision candidates by April 1, contingent upon the successful completion of their senior year. The College subscribes to the National Candidate's Reply Date of May 1 for confirmation of enrollment.

ENROLLMENT CONFIRMATION

In order to confirm their enrollment, students accepting the College's offer of admission must submit a non-refundable \$400 reservation deposit (to be credited to the first semester's tuition) by the May 1 Reply Date. Students must also return a signed honor pledge indicating their commitment to abide by Muhlenberg's Academic Behavior Code. This code, which embraces all areas and activities of the academic life of the College, stands as an emblem of the personal integrity and honest dealing which Muhlenberg expects from each of its students. In addition, students must return a signed pledge indicating their commitment to abide by the College's Social Code. Both of these codes are mailed to students at the point of acceptance. Students wishing to obtain copies of the codes in advance of acceptance can do so by requesting copies from the Office of Admission.

ADVANCED PLACEMENT

Students who obtain an Advanced Placement (AP) score of 4 (well qualified) or 5 (extremely well qualified) will be offered a course unit credit in the appropriate discipline. Students who accept this offer are granted one of the 34 course units required for graduation and satisfy the corresponding general academic requirement at Muhlenberg. Some departments apply AP credits toward their major requirements; some do not.

Students who obtain an AP score of 3 (qualified) on the following tests will be exempted from an introductory course: American History, Biology, Computer Science (either test), European History, French (Language, Literature), German, Spanish (Language, Literature), Latin (either test), Mathematics (either test), Music, and Physics (A.B. degree candidates only). The student may opt to enter an advanced course (if available) but no course units are earned. Subject to departmental review, students who obtain an Advanced Placement score of 3 (qualified) on other AP tests may in some circumstances receive a course unit credit or course exemption. Students may elect to accept or decline these offers.

INTERNATIONAL BACCALAUREATE PROGRAM (IB)

Muhlenberg College will award course units and the fulfillment of general academic requirements for courses and exams taken through the International Baccalaureate Program as follows:

- Anthropology:** 1 course unit equivalent to ATH 112 Cultural Anthropology for a score of 6 or 7 on the higher level exam.
- Biology:** 2 course units equivalent to BIO 150 Principles of Biology I: Organisms & Populations and BIO 151 Principles of Biology II: Cells & Organisms for a score of 6 or 7 on the higher level exam.
- Business:** 1 course unit for a score of 6 or 7 on the higher level exam.
- Chemistry:** 1 course unit equivalent to CHM 100 Introduction to Chemistry for a score of 6 or 7 on the higher level exam.
- Economics:** 1 course unit for a score of 6 or 7 on the higher level exam, students must consult the department head about equivalent course and about enrollment in additional economic courses.
- English:** 1 course unit for a grade of 5 or better on the higher level exam.
- Foreign Languages:**
Language A1: 1 course unit equivalent to Language 204 for a score of 4 or better on the higher level exam, or a score of 5 or better on the standard level exam.
Language B: 1 course unit for Language 301 or 302 for a score of 4 or better on the higher level exam; 1 course unit for Language 303 or 304 for a score of 5 or better on the standard level exam.
Language ab Initio: 1 course unit for Language 204 for a score of 5 or better on the standard level exam.
- History:** 1 course unit equivalent to HST 100-149 Introduction to History for a score of 6 or 7 on the higher level exam.
- Mathematics:** 1 course unit equivalent to MTH 121 Calculus I for a score of 6 or 7 on the higher level exam.
- Music:** 1 course unit equivalent to MUS 111 Music Theory I for a score of 6 or 7 on the higher level exam.
- Philosophy:** 1 course unit for a score of 5 or better on the higher level exam; 1 course unit for a score of 6 or better on the standard level exam.
- Physics:** 2 course units equivalent to PHY 211 General Physics I and PHY 212 General Physics II for a score of 6 or 7 on the higher level exam; 1 course unit equivalent to PHY 105 Physics for Life for a score of 5 on the higher level exam.
- Psychology:** 1 course unit equivalent to PSY 101 Introductory Psychology for a score of 6 or 7 on the higher level exam.
- Theatre:** 1 course unit for a score of 6 or 7 on the higher level exam.

Some departments count IB credit toward their major requirements; some do not. Please consult with the appropriate department head.

ADMISSION OF TRANSFER STUDENTS

The College accepts a limited number of transfer students for entrance in both semesters of the academic year. Transfer candidates must submit a formal application, a transcript of previous college work, a statement of honorable dismissal from their previous institution, a complete secondary school record, two teacher references, and results from all College Entrance Examination Board tests previously taken. All appropriate forms are included with the application materials. In addition, an interview is required of all transfer applicants and must be completed by the appropriate application deadline.

A minimum of 17 courses must be successfully completed through Muhlenberg toward the 34 course units required for a degree from the College. Each course completed at another institution is evaluated individually as to its transferability.

Applications for transfer must be filed by the preceding June 15 for fall semester entrance and by December 10 for spring semester entrance. Decisions regarding transfer applications are usually announced during the months of June and December. If the current semester's grades are required for evaluation, the applicant will be so informed and the admission decision will be made as soon as possible after receipt of the grade report or transcript.

COMMUNITY COLLEGES

Agreements with Lehigh Carbon Community College and Northampton Community College allow students to apply for admission to Muhlenberg at the time of admission to the community college. Upon completion of their work at the community college, students accepted into this program who have earned a grade point average of 3.000 or greater and who meet all other requirements, may enroll at Muhlenberg to pursue a bachelor's degree. The completion of degree requirements is facilitated through the joint counseling provided. Regulations governing transfer work apply (see "Transfer Courses").

Expenses



Muhlenberg endeavors, within the limits of available funds, to offer its educational opportunities to all who qualify for admission regardless of economic circumstances. Through the income from its endowment and through annual contributions from its alumni and friends, the College has been able to keep its fees well below the actual cost of educating each student.

EXPENSES, TUITION AND FEES

CHARGES FOR STUDENTS ENROLLING DURING ACADEMIC YEAR 2005-2006 (FALL 2005, SPRING 2006)

Comprehensive Fee	\$28,550
Student Activity Fee	210
Total Comprehensive Fee	28,760
(One half payable in July and the other half in January)	
Room: Standard	4,070
Single Room	4,700
MacGregor Village, Taylor Hall	4,525
MILE Houses and Taylor Hall Single	5,300
Robertson and South Halls	5,400
Board: Streamliner (19 meals per week/semester)	3,200
Independence (15 meals + 150 Dining Dollars/semester)	2,900
Muhlenberg Express (7 meals per week/semester)	1,470
Advantage 200 (200 meals + 50 Dining Dollars/semester)	3,225
Advantage 250 (250 meals + 50 Dining Dollars/semester)	3,350
Freedom (Unlimited meals + 200 Dining Dollars/semester)	3,700

MISCELLANEOUS FEES AND DEPOSITS*

Fees Per Course Unit	3,360
(For students enrolling less than 3 or greater than 5.5 course units. See Course Load policy.)	
Individual Applied Music Fees, 13 forty-five minute lessons per semester	375
Class Applied Music Fees, 13 forty-five minute lessons per semester	187.50
Academic Transcript, each.....	5
(See Release of Information from Academic Records, including Transcripts.)	
Student Teaching (per semester – not refundable).....	325
Audit – Day (per course unit)	1,680
Audit – Evening (per course unit).....	525
Application (not refundable).....	45
Late Registration (after classes begin)	25
Penalty Fee (failure to make payment as required).....	100
Orientation fee	120
Overload charge per ½ unit	1,680
Student Computer Network Configuration (Optional).....	70

* The College reserves the right to adjust fees at any time without notice.

DINING SERVICE

The dining experience at Muhlenberg College offers students variety, convenience and flexibility.

The Lifestyles Meal Program was designed with valuable input from our students to meet the changing needs of life both on campus and off. Six unique meal plans offer every student a choice. Whether you're looking for three square meals a day or a snack between meals, there is a meal plan to meet your needs.

With four dining venues on campus, three open seven days a week, we offer everything from home cooked style meals to a snack you can grab and take back to your room. If you crave a slice of pizza after dinner, a fruit smoothie after a workout, or prefer having dinner in our spacious dining room with your friends, our facilities offer all these options.

All resident students are required to be on a meal plan. First year students must select either the Streamliner, Freedom, or Advantage 250 meal plan. Students residing in MacGregor Village, MILE properties, Tremont Apartments and off campus are not required to be on a meal plan, but can if they choose to.

Students may not deviate from the pre-planned menu unless the Director of Student Health Services confirms that it is required for medical reasons.

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Non-participation in the College meal plan due to medical reasons must be approved by the Director of Student Health Services before the start of each semester. If confirmation is not received before the start of classes for each semester, students will be billed for the meals on a daily basis until such approval is received.

Each student who is a member of the meal plan will use their Berg ID in the campus dining venues. Berg ID cards are non-transferable, and use of the card by a person other than the one to whom it is issued is not permitted. If the card is lost, it must be reported immediately to Campus Safety.

REFUND POLICY

The College has adopted the following regulations with respect to refunds and rebates due to the withdrawal, suspension or expulsion of a student during the semester. Where voluntary withdrawal occurs, \$200 of the comprehensive fee will be retained. In addition and in cases of suspension or expulsion, the College is entitled to a portion of the remaining comprehensive fee in accordance with the following schedule:

- 20 percent if withdrawal occurs during first week;
- 40 percent if withdrawal occurs during second week;
- 60 percent if withdrawal occurs during third week;
- 80 percent if withdrawal occurs during fourth week;
- 100 percent if withdrawal occurs after the fourth week.

Note: Student aid, which must be returned to the awarding agency, cannot be used to satisfy amounts owed to the College.

Federal regulations govern the return of Title IV funds for students who withdraw, are dismissed, take an approved leave of absence (including a medical leave) from the College, or otherwise fail to complete the period of enrollment for which they were charged before the 60% point of a semester, **and** receive a Federal Pell Grant, Federal Supplemental Educational Opportunity Grant (FSEOG), Federal Perkins Loan, Federal Stafford Loan (subsidized and/or unsubsidized) or Federal PLUS loan. Students may keep only the percentage of federal aid that has been “earned” (based upon the number of days completed) up to the date of withdrawal. The student’s aid will be adjusted and returned to the appropriate Title IV funding source(s). If a student has already received a refund of a credit balance from Title IV funds, which they now have not earned, the student may be responsible to repay those funds directly to the Title IV programs. A detailed description of the refund policy and examples are available from the Office of Financial Aid.

Withdrawal due to medical reasons approved by the Director of Student Health Services may entitle a student to a pro rata refund of the comprehensive fee. The amount to be refunded, if any, will be decided based upon merit. The following fees and deposits are not refundable: application fee, matriculation fee, orientation fee, reservation deposit for admission, room reservation deposit and room fees.

The following exceptions to the refund will be honored:

1. Room reservation deposits are refundable to returning students withdrawing or taking an official leave of absence from the College until June 15 with advance notification.
2. A student withdrawing from the College during the semester will receive a refund of room fees only if a replacement, not already residing in the College residential system, is obtained for the room.
3. In all cases of withdrawal, a refund of the contract portion of the board fee will be made in proportion to the number of unexpired full weeks remaining, provided the refund is applied for at the time of withdrawal from the College and the student meal plan card is surrendered.
4. Applied music fees are refundable during the first two weeks of classes.

FINANCIAL OBLIGATIONS

The comprehensive fee, room and board and other charges incurred by the student, regardless of nature, must be paid consistent with established due dates. Students with outstanding obligations will not be permitted to register, change enrollment status, release transcripts, or participate in commencement exercises until all commitments are met.

STUDENT PAYROLL CHECKS & CHECK CASHING

For proper identification, students must present their Berg ID Card prior to receiving a student payroll check or before cashing a check through the College. No other form of identification will be accepted.

INSURANCE

The College does not carry fire, burglary, theft or other kinds of insurance to cover the personal possessions of students. It is suggested that such coverage be included in policies carried by parents or be purchased through a separate insurance policy.

All students are required to have health insurance while attending Muhlenberg College. An accident insurance policy is provided for full-time students. A brochure explaining the accident plan is made available to each student.

Financial Aid



Muhlenberg College believes that the primary responsibility for financing a college education rests with the parents and the student. Consequently, the majority of assistance is awarded on the basis of financial need together with demonstrated and potential academic and nonacademic achievement.

The primary purpose of Muhlenberg's financial aid program is to provide counseling and assistance to those students who, without such aid, would be unable to attend the College. The program assists full-time students (those enrolled for a minimum of 3 course units per semester) in meeting their costs through institutional scholarships, grants and student employment, and the three campus-based federal programs: Federal Supplemental Educational Opportunity Grant (FSEOG), Federal Perkins Loans, and Federal Work Study (FWS). The program also distributes information on and processes all outside federal programs, state grants and other scholarships. Candidates for financial aid will be considered for any form or combination of forms of assistance. Consideration follows Muhlenberg College's policy of nondiscrimination on the basis of race, color, religion, national or ethnic origin, sex, sexual orientation, disability or age as defined by law.

BASIS FOR FINANCIAL AID

Because each family's financial situation is unique, the Office of Financial Aid carefully studies the need analysis that it receives from the College Scholarship Service and the Federal Processor. It begins by determining a reasonable student budget that includes expenses to cover tuition, room and board, books and supplies, personal expenses and travel. Next, it compares this budget with the family's income, assets, and the student's earnings and savings contribution. The difference between college costs and the amount that the whole family can reasonably afford equals the financial need.

If financial need is established, the Office of Financial Aid awards aid to the extent that funds are available. The aid package usually includes a combination of grant, loan and employment opportunity. The office will also assess the student's eligibility to receive funds from such outside sources as federal and state grants, loans and private scholarship or grant programs. Early in the senior year, high school students should ask their school guidance counselor about the various applications for these programs.

Financial Aid awards are given out for each academic year. Students must reapply each year by the stated deadlines in order to receive need-based awards in subsequent academic years. Renewals are based upon financial need from the FAFSA and other required documents, academic performance, positive contributions to the College and surrounding community, standing within the College's Social Judicial System and the availability of funds. Students who have a negative impact on the campus community through their behavior may jeopardize their institutional grant awards. Need-based financial aid is subject to change each year due to changes in the family's financial circumstances. (See "Important Facts About Financial Aid" brochure.)

FINANCIAL AID APPLICATION PROCEDURES

Prospective Students: A candidate for the first-year class who desires financial assistance should submit a completed College Scholarship Service (CSS) financial aid PROFILE form and Free Application for Federal Student Aid (FAFSA) to the appropriate processors no later than February 15. A Muhlenberg College Application for Financial Aid and a signed copy of the parents' and students' 2005 IRS 1040 Tax Return and W2 Form(s) must be submitted to the Office of Financial Aid by March 1. Late applications will be considered only if funds are available. The financial aid PROFILE form and FAFSA are available in secondary school guidance offices. If all forms are received on time, first-year students will be informed of their aid decision by early April. These decisions are made only after affirmative admissions decisions have been reached.

Transfer Students: Transfer candidates are placed on a wait list for financial aid. Only after returning upperclass students and incoming first-year students are awarded, will financial aid transfer candidates be considered for aid. Transfer candidates must submit the financial aid PROFILE form and FAFSA to the appropriate processors by March 15. A Muhlenberg College Application for Financial Aid and a signed copy of the parents' and student's 2005 IRS 1040 Tax Return and W2 Form(s) must be submitted to the Office of Financial Aid by April 15.

Continuing Students: Upperclass students applying for aid should obtain a packet of renewal aid forms before the mid-year break from the Office of Financial Aid. A completed Free Application for Federal Student Aid (FAFSA) must be submitted to the appropriate processors by April 15. A Muhlenberg College Application for Financial Aid and a signed copy of the parents' and student's 2005 IRS 1040 Tax Return and W2 Form(s) must be submitted to the Office of Financial Aid, also by April 15. If all forms are received on time, upperclass students should be informed of

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their aid decisions in early June. You may contact the Office of Financial Aid for the penalties regarding filing your forms late.

Independent Students: Students wishing to apply as independents must first consult with the Director of Financial Aid to see if they qualify for that status.

Study Abroad Programs: Students participating in the Muhlenberg International Student Exchange Program (ISEP) or a Lehigh Valley Association of Independent Colleges program may receive federal and Muhlenberg financial aid and should adhere to the requirements and deadlines for upperclass students. Muhlenberg offers grants to students in other approved programs on a competitive basis. In addition, if the courses taken elsewhere are offered through Muhlenberg College, eligible students may also qualify for federal grants and loans.

TYPES OF AID AWARDED BY THE COLLEGE

Muhlenberg College Grants: Grant or scholarship funds awarded by the College are gifts that do not have to be repaid. Recipients must demonstrate a financial need, continue to make satisfactory academic progress and show promise in the areas of campus contributions and college citizenship.

Campus Employment: Priority for on-campus employment goes to students with financial need and is awarded as part of the financial aid package. The Office of Financial Aid manages the program, but students are responsible for obtaining the positions for themselves. The student is paid by check on a monthly basis.

Merit Scholarships: The College also awards various merit scholarships to selected first-year students who demonstrate the potential for outstanding academic achievement. Recipients are to be notified of their selection by April of each year. The awards will be without regard to financial need and will be renewed provided that a 3.000 grade point average is achieved by the end of the second year.

Ministerial Grants: Regardless of need, dependent sons and daughters of Lutheran pastors and pastors of other denominations with whom the Lutheran Church shares full communion are eligible for grants. The College requires eligible students to file the appropriate financial aid applications. Deadlines and procedures for filing are the same as outlined for financial aid applicants. If a student is awarded a Ministerial Grant and also receives federal assistance, the Ministerial Grant may have to be reduced if the total aid received results in an over-award of aid. In October 1992, the Ministerial Grant changed. The minimum grant a student can receive is \$2,000. If the student demonstrates financial need, the student will receive additional grant assistance up to half the comprehensive fee.

Honors Programs: Students with a combined SAT score of 1300 (Critical Reading and Math) or above and who rank in the top 10 percent of their class are considered for one of three honors programs—Muhlenberg Scholar, Dana Associates or RJ Fellows.

Each program provides an enriched academic experience with special seminars and research opportunities. Each program also carries a \$3,000 annual stipend.

Federal Supplemental Educational Opportunity Grants (FSEOG): The Supplemental Educational Opportunity Grant is a federal grant awarded through Muhlenberg College. It is reserved for students who receive Pell Grants and may range from \$100-\$4,000 per year.

Federal Perkins Loan: The Federal Perkins Loan is a federal low interest (5 percent) loan awarded through Muhlenberg College to students with financial need. Students are limited to \$3,000 per year and a \$15,000 total for their education at Muhlenberg. Repayment of the loan begins six or nine months (depending upon date of initial borrowing) after the borrower ceases full or half-time study. The 5 percent interest starts at the beginning of the repayment period.

Federal College Work-Study Program (FWS): This federal program provides students with jobs on campus. Within limitations established by federal guidelines, the College determines weekly hours and wages. Placement is similar to the Muhlenberg campus employment program, but is reserved for students with financial need.

OUTSIDE ASSISTANCE FROM FEDERAL, STATE, OR PRIVATE SOURCES

Pell Grant: This is a federal grant made available to eligible students with financial need. The application process takes place through the FAFSA. Within four to six weeks, the student will receive a Student Aid Report (SAR). This SAR (all parts) will be used by the Office of Financial Aid for determination of the award. This application must be renewed each year.

State Grant Programs: Consult your secondary school counselor to determine the extent of grant support furnished by your state. Residents of Pennsylvania may qualify for up to \$3,500 per year in grant funds from the Pennsylvania Higher Education Assistance Agency (PHEAA). Other states have similar programs. Some states allow you to apply for state grant assistance using the FAFSA, and others utilize a separate application. Be sure to complete the correct application for state grant assistance.

Stafford Loans: Most states also support their own Stafford Loan Program, allowing students with financial need to borrow from \$2,625 to \$5,500 annually with low interest and deferred repayment. The maximum you can borrow for undergraduate study is \$23,000. Application instructions are available from the Office of Financial Aid. Independent students may also borrow up to an additional \$4,000-\$5,000 unsubsidized Stafford Loan.

Restricted Scholarships: Students may also qualify for some of the restricted scholarships administered through the Office of Financial Aid. A list of the available scholarships is on the Muhlenberg Financial Aid Application.

Other Sources of Aid: In addition to the programs mentioned above, students should investigate other grant and scholarship programs sponsored by a variety of private organizations including business corporations, foundations, civic clubs, etc. Check with your high school guidance counselor for a list of local organizations.

SOURCES OF ASSISTANCE NOT BASED ON NEED

PLUS: These loans are meant to provide additional funds for educational expenses. Like Stafford Loans, they are made by a lender such as a bank, credit union, or savings and loan association. Parents of dependent students may borrow up to the cost of attendance minus all financial aid.

Army ROTC Scholarships: Muhlenberg students are able to participate in this program at Lehigh University. Students enrolled in the Army program can apply for scholarships that could cover some or all of the comprehensive fee, an allowance for books and supplies, and a monthly stipend for personal expenses. Information on the program may be obtained by contacting your guidance counselor or the Department of Military Science at Lehigh University (<http://www.lehigh.edu/~inmil/>).

Payment plans: The College also offers a 10-month payment plan. Contact the Office of Financial Aid for further information.

REGULATIONS GOVERNING AID

1. To provide for the fullest use of the College's resources, students are required to apply for all outside awards for which they may be eligible.
2. Muhlenberg College students on financial aid, including merit scholarship recipients, are required to report their outside awards to the Office of Financial Aid as soon as they are notified of them. No amount of aid, including outside awards and merit scholarships, can ever exceed Muhlenberg's cost of attendance. If necessary, adjustments to Muhlenberg financial aid awards will occur only to the self help portion (federal loans, student employment) for the first \$6,000 a student receives in outside scholarships. Once a student exceeds a total of \$6,000 in outside scholarships, a dollar for dollar reduction in need based Muhlenberg College Grant will occur.
3. Students receiving federal or Muhlenberg College financial aid must make *satisfactory academic progress* to retain their awards. (Federal funds include Pell Grants, Federal Supplemental Grants [FSEOG], Work-Study Program [FWS], Federal Perkins Loans, the Stafford Loan Program, and the Federal Parent Loan for Undergraduate Students [PLUS]). If the student fails to maintain the institutional standards outlined in this section, the student is considered to not be making *satisfactory academic progress* and will lose aid until the standards are met.

First-year students will have a full academic year to meet the minimum standards for satisfactory academic progress. However, should they fail to meet the standards after their first semester, a warning letter will be sent to them explaining the consequences should they fail to meet the minimum standards after their second semester.

Upon formal petition to the Committee on Financial Aid, exceptions may be granted for unusual circumstances. These standards relate only to the awarding of financial aid. (See Academic Difficulty.)

Should circumstances warrant that students need additional time to complete their college requirements beyond the four years, financial aid may be available provided that satisfactory academic progress is being made. Students should contact the Office of Financial Aid for more information. Be aware, however, Muhlenberg College will only provide institutional aid for eight semesters.

4. Some families may be selected for a process called Verification. Once notified of this selection, the family has 30 days to complete the verification process. Until the process is completed, no aid can be deducted from the student's bill.
5. Muhlenberg College funds are awarded only to traditional full-time day degree students for a maximum of eight semesters.
6. Muhlenberg College aid may be cancelled as a result of disciplinary suspension or expulsion, academic dismissal or withdrawal. Any aid recipient wishing to withdraw from a course(s) or from the College should review the impact of the withdrawal on awards with the Director of Financial Aid.
7. The Tax Reform Act of 1986 states that financial aid grant awards (money that does not have to be repaid) in excess of the cost of tuition, fees, books and equipment are subject to federal income tax.
8. The Omnibus Drug Initiative Act of 1988 allows a student's eligibility for federal aid to be suspended if the student has been convicted of selling or possessing drugs.
9. As of July 1, 2000, the federal government requires that federal financial aid eligibility be recalculated for students who withdraw, are dismissed, or take a leave of absence prior to completing 60% of a semester. For details about this policy, please contact the Office of Financial Aid.

SATISFACTORY ACADEMIC PROGRESS STANDARDS

Courses Attempted (includes transfer courses)	Minimum Graduation Units	Minimum GPA
4	3	1.200
8	6	1.400
13	10	1.700
17	14	2.000
20	17	2.000
25	21	2.000
29	25	2.000
34	30	2.000

ADDITIONAL SERVICES AVAILABLE

Students who have demonstrated exceptional need at Muhlenberg may request the Director of Financial Aid to write an application fee waiver letter to various graduate or professional schools.

Waivers of Graduate Record Examination (GRE) fees are available for students whose calculated parental contribution towards their Muhlenberg education is \$900 or less.

Waivers of residence hall deposits are available for eligible students.

Student Affairs and Campus Life



College years are a great opportunity for student growth and development. Students learn about themselves and others and each must learn how to relate to individuals and groups with vastly different backgrounds, interests, beliefs, attitudes, and values. Not only is the tolerance of differences expected, but an appreciation and a celebration of these differences is an important outcome of the student's experience. In addition, the student must progress toward self-reliance and independence tempered by a concern for social responsibility.

Efforts to establish and promote such growth and development may be direct or indirect. Counseling and programming serve as clear examples of the direct influences designed to enhance the developmental process, while the general social and intellectual atmosphere of a campus spurred by the role modeling of faculty, staff, and campus student leaders serve as examples of the indirect influences. Importantly, individuals must seek opportunities to really learn about themselves and others.

The student affairs staff provides students with the opportunity to face the challenge of growth and development. This is done in the residence halls, in athletics, in the health and counseling centers, in student activities and across the campus.

ACADEMIC SUPPORT SERVICES

Academic Support Services assists students' efforts to successfully navigate the rigors of competitive higher education, to develop independent critical thinking, to learn to express ideas with clarity and to become committed to academic excellence. The office provides a variety of resources to accomplish its mission. The award-winning Peer Tutoring Program is the keystone of our services; peer tutors are powerful agents of change. Peer tutoring is offered to all full-time day students. We utilize peer tutors in several ways, including individual tutoring, content workshops, learning assistants in the classroom, tutor training, and in first year study skills seminars.

Peer tutoring is provided by students who have been recommended by the faculty and then selected and trained by Academic Support. Muhlenberg College's Peer Tutoring program is certified by the College Reading and Learning Association to the Master Tutor Level. Tutoring is available in most subject areas through individual or small group sessions. Full-time day students who wish to receive tutoring should fill out an application in the Office of Academic Support Services before the seventh week of the semester. A student may receive tutoring from one to two hours per week, per subject area, based on academic need and tutor availability.

In addition to the nationally recognized tutoring program, Academic Support Services includes three professional Learning Specialists who help students become better aware of themselves as learners. The developmental concerns of traditional students evolve during their four years. Our services are based upon current research and practices in developmental education and cognitive science, and our programs are structured to accommodate students' changing needs.

ATHLETICS AND PHYSICAL EDUCATION

Physical development is an important part of a liberal arts education. Muhlenberg has a vibrant athletic program on the intercollegiate, intramural and recreational levels. These programs emphasize the lifelong value of sports, fitness/wellness, and the thrill of competition.

The physical education program emphasizes the principles of fitness and healthy living. All students develop a greater understanding of optimal well-being through a core physical education course entitled Principles of Fitness and Wellness.

The Life Sports Center is the center of athletic and recreational activity. Facilities include a six-lane, 25-meter swimming pool; racquetball courts; and wrestling room and feature a large, recently renovated, multi-use field house for indoor tennis, track, basketball, and volleyball. A 47,000 square foot health and fitness addition was completed in August 2004. It includes state-of-the-art weight training and cardio fitness areas available to all students as well as new locker room facilities for varsity athletes, training and equipment issue rooms and athletics offices. The facility overlooks a lighted artificial turf stadium with 8-lane track, lighted practice and playing fields, all of which support intercollegiate athletics and recreational programming.

Muhlenberg boasts 22 varsity sports including eleven for men (football, soccer, cross-country, basketball, wrestling, baseball, indoor and outdoor track, golf, tennis, and lacrosse) and eleven for women (field hockey, soccer, volleyball, cross-country, basketball, softball, lacrosse, indoor and outdoor track, tennis, and golf). Men's, women's and co-recreational intramural and recreational programming are available throughout the year. Muhlenberg's varsity teams compete in the Centennial Conference, which includes Bryn Mawr, Dickinson, Franklin and Marshall, Gettysburg, Johns Hopkins, Haverford and Swarthmore, among others. Non-

conference opponents include Williams, Drew, Susquehanna, Amherst, U.S.M.M.A. (King's Point), and Washington & Lee

CAMPUS SAFETY AND SECURITY

The Department of Campus Safety and Security provides 24-hour security coverage of the Muhlenberg campus every day of the year. The department insures a safe and secure campus consistent with the educational mission of the College. Campus Safety officers are commissioned police officers of the Commonwealth of Pennsylvania. They have all the powers of arrest and investigation on Muhlenberg College property and adjacent streets as any municipal police officer. A primary goal of the Department of Campus Safety and Security is to help students. Whether it involves escorting a student late at night or investigating an incident, Campus Safety officers at Muhlenberg help students and preserve a harmonious environment. They perform their duties with style, grace, and professionalism while maintaining a strong sense of protection on campus. In doing so the officers are a vital part of the Muhlenberg College community.

CAREER DEVELOPMENT AND PLACEMENT

The Office of Career Development and Placement (OCDP) is committed to assisting students with each of the following three areas.

Exploration – Increase student awareness of their own interests, skills and values; encourage students to gather information and experience to assist with informed decision making; promote curiosity about the world in anticipation of lives of leadership and service.

Preparation – Equip students with tools, strategies, skills and knowledge related to their goals; improve students' ability to understand and communicate the value of their aggregate Muhlenberg experience; provide support for college to career transition and encourage lifelong learning.

Opportunities – Facilitate connections to people, organizations, information and other resources that will help students meet their goals.

To support its mission, the OCDP offers numerous programs and services for students.

The Office of Career Development and Placement targets first-year students for many of its programs since exploration and planning are recommended over a four-year timeline. Muhlenberg's Ultimate Life Exploration System (MULES) is a career planning portfolio designed to assist students in tracking and planning their experiences at Muhlenberg and to assist students in seeing the connections between their academic and co-curricular involvements and life choices.

The OCDP sponsors programs that expose students to working professionals and the world beyond college. Discussions with guest speakers give students the chance to

learn about a variety of fields. The Muhlenberg Career Network enables students to meet and gain advice from alumni in careers ranging from banking and writing to research and teaching. During winter break, students may participate in the Muhlenberg Shadow Program, which links students with alumni in work or graduate/professional school.

Lists of part-time, off-campus and summer job opportunities are available to students. Internships are available for students seeking work experience related to their career interests. These are listed in the Career Resource Library, an excellent source of information, as well as Career Connections, an online database.

The OCDP offers workshops on career decision-making, choosing a major, graduate school essays, resume writing, job-search strategies, summer jobs/internships, and networking. "Dine for Success," mock interview programs, and the Career Campaign are just a few of the innovative programs that prepare students and provide pertinent information. A comprehensive Gearing Up for Graduate School event provides students with necessary information to be competitive in the application process.

The OCDP also takes an active approach to help students identify potential employers. Each year representatives from a variety of fields come to the campus to interview seniors for full-time employment. Through the J.O.B.S. program, hundreds of positions are entered into the Career Connections database for students to access. In addition, links from the OCDP World Wide Web page (www.muhlenberg.edu/odcp/) help students learn about thousands of other opportunities.

COMMUNITY SERVICE AND OUTREACH

The Office of Community Service at Muhlenberg College promotes civic awareness and provides support and resources for students and student organizations interested in community outreach. Students work with the homeless, youth, elderly, as well as agencies committed to the environment. It is these experiences that help students establish a sense of civic responsibility that will be a part of their life long after they graduate.

One of the ways this is done is through service to the Allentown area school district where our students volunteer as tutors in schools, shelters, and after-school programs. Not only do they provide support to struggling students, but they also are advocates for equitable funding for education.

Our outreach is not limited to education. Muhlenberg students volunteer with recent immigrants, hospice patients, and adults with mental illness. The Office of Community Service works to help students find service opportunities that are meaningful and that allow for personal growth and leadership development. Many of these are the service learning component of a regular academic course.

Providing service opportunities for students is just one of the many ways Muhlenberg produces graduates well prepared for leadership in their careers and communities.

COUNSELING SERVICES

The Counseling Program at Muhlenberg is designed to meet the needs of individual students for short-term counseling for normal developmental issues, such as homesickness or relationship problems, and for reactive concerns, such as depression or anxiety. Counseling may take the form of individual or group sessions or informative, prevention programming on such topics as stress management, relationships or building self-confidence. Counseling Services also provides alcohol and other drug assessments, treatment, and prevention programming. All staff members are licensed professionals.

Counseling staff members are also available to provide consultations regarding issues or concerns that may be presenting problems for a student or a friend. Consultations are available in person or by telephone on a formal or informal basis to full-time (day) students.

Counseling Services at Muhlenberg College is governed by legal and ethical standards regarding confidentiality. Any and all participation at the Counseling Center is strictly confidential; any student wishing information to be released to parents, administrators, etc. must sign a release of information form indicating this intent and authorizing the release. All services provided to full-time students are of no cost to the student or to his/her family. Sessions are by appointment, which can be scheduled by calling extension 3178. The Counseling Center is open Monday through Friday and a counselor is "on call" to handle emergency/crisis situations at all times during the academic year.

DINING SERVICES

Sodexo Campus Services is the contract foodservice company at Muhlenberg College. Sodexo has been serving Muhlenberg students since the 1940's, and in collaboration with Muhlenberg, makes dining at Muhlenberg an enjoyable experience for students.

Dining services for students on a meal plan are available at two venues in the Student Union: The General's Quarters and The Garden Room. The General's Quarters provides food court style service and features a grill, a deli and an action station in addition to salads, baked goods and beverages. It is open to serve students breakfast, lunch, dinner, and late night snacks, closing at midnight five days a week and is open until 3:00 a.m. on Friday and Saturday. The Garden Room is Muhlenberg's more traditional student restaurant serving in an all-you-can eat setting and offering breakfast, lunch, and dinner during traditional meal times. Students can choose from various prepared dishes such as chicken potpie, lasagna, and carved meats at dinner and brunch on the weekend.

Students may also purchase food and beverages at Java Joe in the Student Union and The Power House, Muhlenberg's new café located in the Life Sports Center. Java Joe offers a variety of hot and cold beverages, baked goods and features a specialty sandwich of the day. The Power House offers grab and go sandwiches and salads, hot and cold beverages, baked goods and features a soup of the day and many menu items with your fitness in mind. Purchases in Java Joe and at The Power House may be made using cash or flex.

GREEK LIFE

Greek life at Muhlenberg College consists of eight nationally or internationally affiliated Greek-letter organizations (four sororities and four fraternities). Each chapter traditionally holds membership recruitment and education programs in the fall of each year. Students interested in becoming members must meet or exceed certain standards, both behaviorally and academically.

Being a member of a Greek organization provides a host of benefits including the opportunity to develop and refine leadership skills, participate in local community service and national philanthropic projects, and form lifelong friendships within an international brotherhood or sisterhood. Members of the Greek system are involved in practically every facet of campus life and support many campus initiatives. The Greek system strives to provide for its members growth-oriented opportunities and experiences that are consistent with the mission of the college.

HEALTH SERVICES

The Health Center is a primary health care facility offering initial health care to full-time (day) students of the Muhlenberg College community. Health care is provided by qualified professionals who have completed state approved educational programs and are licensed to practice their profession in the Commonwealth of Pennsylvania. The Health Center provides a listing of consulting physicians for specialty treatment when this expertise becomes necessary. The students are assisted in securing consultations as appropriate.

The primary health services for the Center include health promotion and disease prevention, health counseling, selected care during acute and chronic phases of illness and referrals to health care sites outside the College setting as deemed necessary by the student's needs. The staff of the Health Center is committed to serve as educators to the students as they are assisted in concepts of self care as well as becoming educated consumers of health care.

All students must submit a completed medical form to the Health Center in accordance with the College's stated deadline. In addition, enrolled students must demonstrate tuberculin testing and immunization against rubeola, rubella, tetanus, diphtheria, mumps, and poliomyelitis. Proof of varicella may be accomplished with two properly

spaced doses of varicella vaccine, laboratory evidence of immunity, or a reliable history of varicella. It is also required that the Hepatitis B vaccine series has been initiated or have been completed with the required three doses. Laboratory evidence of Hepatitis B immunity is acceptable. Students residing in college-owned housing are required to have at least one dose of the meningococcal A/C/Y/W-135 vaccine or a signed waiver declining the vaccine after being given literature on the vaccine and the disease.

The College supports the Pennsylvania Department of Health Bureau of Communicable Diseases Division of Immunizations recommendations. Failure to submit this health form with the necessary documentation will result in denied admission to the residence hall. Students who do not demonstrate proof of immunizations will be required to receive them at their own expense prior to class attendance.

The College provides a limited secondary insurance policy (for accidents only) on all students for services provided outside the Health Center. It is strongly suggested that students have primary health insurance inclusive of sickness/hospitalization. Students are responsible for cost of medical care not received at the Health Center.

HOUSING

First-year students must live on campus. Assignment of rooms in the residence halls is made by the Residential Services staff. Rooms are designated, for the most part, on a first-come, first-served basis according to the date the commitment card and deposit are received by the Admissions Office. Roommates are assigned based on information provided by the student on the Room and Board Application Card.

Upperclass students, in compliance with lottery processes, may elect to live on-campus or in a fraternity or sorority. Upperclass students wishing to live off-campus must apply prior to the room selection lottery. Students admitted as commuters may live on campus if space is available in the residence halls. Transfer students will be housed as space permits on a first-come, first-served basis.

Housing for students consists of six traditional residence halls, group interest housing, four sororities, four fraternities, the MILE (Muhlenberg Independent Living Experience) program, MacGregor Village apartment complex and the suite-styled Benfer, Robertson and South Halls. Brown Hall houses women exclusively, while Benfer, East, Martin Luther, MacGregor, Prosser, Robertson, South, Walz and Kathryn P. Taylor halls are coeducational residences. Prosser, Brown and Walz Halls house first-year students.

JUDICIAL AFFAIRS

Muhlenberg College students are both citizens and members of an academic community. As citizens they enjoy the same constitutional freedoms as other citizens

and are subject to criminal and civil law. As members of the College community, however, they assume additional obligations. Each student bears a responsibility to preserve a collegiate environment which encourages the maximum development of all students. The Muhlenberg College Social Code along with the laws of the city of Allentown, the Commonwealth of Pennsylvania, and the United States guide actions and are expected to be followed. Students are held accountable for their actions and Muhlenberg College reserves the right to deal with infractions of the Social Code; such infractions may be dealt with through administrative and/or judicial channels. Parents may be notified when a student has gone through the Judicial Process and is found in violation of the Alcohol Policy or other offenses. This notification will be done at the discretion of the Dean of Students and in accordance with College policy.

RELIGIOUS LIFE

The religious life of the Muhlenberg College community is rich and diverse. A church-related college of Lutheran heritage, it has a full-time chaplain as pastor to the community, coordinating the team of campus ministry staff persons representing various faith traditions. Chapel offices are located at the rear of Egner Memorial Chapel. The Roman Catholic Chaplain's office is located at the Newman Center and the Director of Hillel has an office at the Hillel House. The beautiful neo-Gothic Egner Chapel is open regularly for private meditation or scheduled events. Regular Sunday worship services are conducted in the Chapel: at 1 p.m. is an ecumenical, word and sacrament worship; at 9 p.m. is a Roman Catholic mass. Friday night Shabbat dinner and services are offered at the Hillel House.

Diversity is also expressed through the variety of student religious fellowship groups:

- Chapel (the ecumenical Christian ministry)
- Newman Association (Roman Catholic)
- Hillel (Jewish)
- CCF (Christian)
- SEVEN (student-led Christian group)

Most of these groups provide regularly scheduled and special event programs in the areas of social activities, community meals, education, and community service.

In addition to the Chapel, the Hillel House for Jewish Life is found at 2238 Chew Street. The house maintains a kosher kitchen, hosts rotating weekly Shabbat dinners and services on Friday nights, and Sunday bagel brunches. Hillel also sponsors several off-campus events throughout the academic year. The house further serves as a drop-in center for Jewish students. Located at 2339 Liberty Street is the Newman Center, where daily mass and weekly fellowship dinners are offered for the Roman Catholic community.

RESIDENTIAL SERVICES

The Residential Services program is committed to quality of life in the residence halls, MILE program and Greek houses. We encourage self-responsibility, facilitate development and provide an environment conducive to academic success.

Our undergraduate staff includes seven head residents, upperclass students with responsibility for the general administration and maintenance of a residence hall, and over 50 Resident Advisors and Resident Liaisons who take responsibility for each of the floors in the halls, complementing and supplementing the formal education process.

Our professional staff includes a Director of Residential Services and two Assistant Directors. Three professional Residence Coordinators live in campus housing and supervise the undergraduate staff.

STUDENT ACTIVITIES

The Office of Student Activities plans, supports and promotes diverse cultural, educational, social and recreational programs, which enhance the quality of campus life and community spirit. The student activities program at Muhlenberg is student initiated and supports a broad array of experiences (concerts, speakers, dances, comedians, musicians, etc.). The Muhlenberg Activities Council (MAC) is the student organization which works closely with the Office of Student Activities and recommends activities in areas affecting Muhlenberg student life.

Student participation in clubs and organizations makes student activities an important area for student involvement and empowerment. Students who participate in extracurricular activities are more likely to succeed at both personal and professional goals, develop leadership skills, form lasting friendships with peers and learn more about a chosen field. Some of the student organizations are aligned with academic departments while others are special interest organizations. There are also honor societies and Greek fraternities and sororities.

The Office of Student Activities assists recognized student organizations in providing programming for Muhlenberg students. In addition, the office is available to assist students wishing to create a new student organization.

STUDENT LEADERSHIP DEVELOPMENT AND TRAINING

Muhlenberg College's leadership programs offer inclusive leadership development activities emphasizing growth, skills development, and experiential learning congruent with the mission of the College.

Connect 4 Success provides students currently in organizational leadership positions with information and skill-building to increase their effectiveness. The series of events

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runs the gamut – from interactive workshops to inspirational lectures to practical presentations on the nuts and bolts of working with clubs, teams and peer groups. Participants who attend a minimum of four (4) approved programs during the semester and complete a reflection exercise receive a **Connect 4 Success** Certificate of Completion at the end of the semester.

leaderLab (with a small “l”) is a residential based leadership development and education program for students interested in a more in-depth exploration of leadership. Participants will study a variety of leadership models and participate in personal assessments, workshops, retreats and lectures. Participants will conclude the program with the ability to identify their personal strengths and areas for growth as a leader, and the ability to think critically about and convey a personal approach to leadership.

Graduation Requirements



Because of the rapid pace of cultural and technological change in our society, highly specialized training does not provide the student with the preparation and knowledge required to respond to the future. A broadly based liberal arts education provides the student with the intellectual perspective, problem-solving experience, and communication skills necessary to adapt to a changing world.

Muhlenberg College general academic requirements are designed to furnish the student with the theoretical and practical knowledge that an educated person should possess regardless of personal career goals. Such knowledge includes an understanding of the major fields of learning, an ability to express oneself clearly and cogently, an understanding of the values found in religious traditions and philosophical reflection, an understanding of epochs, languages and cultures other than one's own, and above all, an ability to see issues from many sides, to question what is taken for granted and to view particular events in relation to their larger contexts. The Muhlenberg College curriculum provides opportunities for exploring and integrating ideas while challenging students to question, discuss and think critically about their own beliefs and values. By fostering such skills and perspectives, a Muhlenberg education seeks to provide the student with the insight and flexibility needed to meet the challenges of the future.

Muhlenberg College uses a course system (units) intended to emphasize the mastery of subject matter in contrast to the credit system which measures achievement in terms of time spent in class. A course as a unit of instruction may include a combination of lecture, discussion, recitation, computer work, group projects and laboratory work. The course is the entire learning experience, not merely the time spent in the classroom. Such an approach delegates to students greater responsibility for their own education and encourages active learning.

GENERAL ACADEMIC REQUIREMENTS

The following academic requirements apply to all liberal arts degree candidates first enrolled at the College since Fall 1989. A current listing of specific courses which meet the College's general academic requirements may be obtained from the Office of the Registrar.

I. ACADEMIC SKILLS

Effective writing, speaking, and reasoning are important in all academic disciplines and are hallmarks of the educated person. The development and utilization of these skills will be evident in courses throughout the curriculum. Students are also required to have some knowledge of a language other than English—a skill which helps in understanding the structure of language as well as providing access to another culture. Requirements have been established so that all students may have the opportunity to achieve competency in these skills early in their college experience.

1. **Writing (W)**—competency in writing clear and cogent expository prose. *Required: First-Year Seminar and two additional writing intensive courses, one of these must be a course designated by the major department. See also Writing Program, page 55.*
2. **Oral Expression**—skills in speaking clearly and effectively in small groups or to larger audiences. First-Year Seminars and other seminar courses will give special attention to speaking skills.
3. **Reasoning (G)**—the ability to understand and utilize mathematical and/or logical relationships, to analyze data, to construct and assess arguments, and to make sound judgments. *Required: one course. Students are encouraged to complete the reasoning requirement no later than the end of the sophomore year.*
4. **Language (FL)**—the development of the basic skills of language acquisition and usage such as understanding grammatical structure, oral-aural ability, reading comprehension, and writing ability, as well as an introduction to the cultural aspects of language study. *Required: two courses in the same language OR proficiency adequate to prepare students for the Conversation and Composition course (301) in the language. Students are encouraged to complete the language requirement by the end of the sophomore year. Initial placement in language study at Muhlenberg is dependent upon experience and placement test results as recommended by the Department of Languages, Literatures and Cultures.*

II. PERSPECTIVES

The following requirements provide some degree of breadth in the academic experience of all students. Courses meeting perspectives designations will introduce students to the different types of assumptions, questions, ways of understanding and

results that characterize various fields of inquiry in the liberal arts. A course may have up to two perspectives designations; however, no one course can be used by a student to satisfy more than one perspectives requirement.

1. **Literature and the Arts**—an exploration of the various modes of creative expression in order to enhance the understanding and appreciation of works of the creative mind. *Requirement: two courses, one course from each area.*

The Fine Arts (A)

Designated courses in Art; Communication; Dance; English; Languages, Literatures, and Cultures; Music; and Theatre.

Two ½ unit dance technique courses enrolled in a single term.

Two ½ unit Individual or Class Applied Music courses in the same instrument taken consecutively may be counted as one course to satisfy the Fine Arts requirement.

Literature (L)

Designated courses in Classical Civilization; English; Languages, Literatures and Cultures; and Religion.

2. **Meaning and Value**—an examination of what it means to be human and a study of the values that should direct our conduct or could give meaning to our lives through a consideration of religious traditions or philosophical reflection. *Requirement: two courses, one course from each area.*

Philosophical Reflection (P)

Designated courses in Philosophy; Political Science; and Religion.

Religious Traditions (R)

Designated courses in Religion and Anthropology.

3. **Human Behavior and Social Institutions (B)**—an understanding of the relationship of the individual to social institutions through a study of individual and group behavior as well as the structure, purpose, ideology, and dynamics of social institutions. *Requirement: two courses from different departments.*

Designated courses in Anthropology, Communication, Economics, Education, Political Science, Psychology, and Sociology.

4. **Historical Studies (H)**—an understanding of the past that embraces a broad range of human activity, that takes seriously the integrity of the past, that explores the connection between successive events in time and that examines the processes by which the past has become the present. *Requirement: one course.*

Designated courses in American Studies; Communication; History; Languages, Literatures & Cultures; and Theatre.

5. **Physical and Life Sciences (S)**—an exploration of our current understanding of natural phenomena; a study of the methods employed to formulate a consistent set of explanations that are developed from and applied to experimental observations. *Requirement: two courses selected from different departments or a full year of laboratory science within a single department.*

Designated courses in Anthropology; Biology; Chemistry; Environmental Science; Environmental Studies; Neuroscience; Physics; and Psychology.

6. **Diversity and Difference (D)**—a focus on the practices and perspectives of one or more human societies *outside* the geographic boundaries of Europe or the United States, or on the practices and perspectives of one or more marginalized ethnic minority populations *within* Europe or the United States. *Requirement: one course.*

Designated courses in Anthropology; Art; Communication; Dance; English; Environmental Studies; History; Geography; Languages, Literatures and Cultures; Music; Philosophy; Political Science; Religion; Sociology; and Theatre.

III. EXPLORATION AND INTEGRATION

Muhlenberg College is committed to the interdisciplinary exploration and integration of ideas. In keeping with this commitment, the First-Year Seminar is designed to encourage students to question, discuss and think critically about their own basic beliefs and values. Writing and speaking skills will be stressed and a broad range of seminar topics will be offered. Departmental courses and seminars are often structured as interdisciplinary experiences.

First-Year Seminars are small, discussion-oriented courses that focus on the development of effective thinking, writing and speaking skills. In the concentration on writing, emphasis is placed on the formulation of thesis, critical use of evidence, and processes of revision. All students are required to complete a First-Year Seminar.

IV. PHYSICAL EDUCATION

Courses in physical education are designed to promote an understanding of the elements of physical well-being. All students are required to successfully complete Principles of Fitness and Wellness. Principles of Fitness and Wellness is a semester-long course exploring the dimensions of wellness and the health related components of fitness. *Students are strongly encouraged to complete the physical education requirement no later than the end of the sophomore year.*

EXEMPTIONS

Exemptions from general academic requirements may be granted to those students who can demonstrate the requisite level of proficiency or understanding by means of a College Board Achievement examination, an Advanced Placement (AP) examination, the International Baccalaureate (IB) program, a Muhlenberg College exemption test, or a College Level Examination Program (CLEP) test.

Fulfilling the general academic requirements through alternate means that can be demonstrated to satisfy the intent of these requirements is permitted with the approval of the Dean of the College for Academic Life and the faculty's Curriculum Committee. Any student, after consultation with his/her advisor and the academic department(s) involved, may submit a proposal for consideration.

DEGREE REGULATIONS

1. Candidates for a degree must earn no fewer than 34 course units, at least 17 of them in courses offered through Muhlenberg.
2. Candidates must be certified in a major field of study. Normally, at least half of the courses required for a major must be in Muhlenberg courses.
3. Candidates must earn a cumulative grade point average of not less than 2.000, based on the total number of Muhlenberg College course units attempted.
4. Candidates must earn a grade point average in the major field of study of not less than 2.000, based on the total number of course units attempted in the major.
5. Candidates must normally complete their final two semesters "in residence." A student is considered "in residence" when enrolled for 3 or more course units at Muhlenberg during a traditional academic (fall or spring) term. This regulation does not apply to students who have been accepted to degree candidacy through the Wescoe School of Muhlenberg College.
6. Candidates must satisfy all general academic requirements with one unit courses, except in the case of dance techniques and applied music courses as noted under the requirement in the Fine Arts.
7. Candidates may satisfy requirements in a major or minor field of study and a general academic requirement concurrently.
8. Candidates must attend Commencement unless excused by the Office of the Registrar. The policy regarding participation in Commencement by students who have not yet completed all graduation requirements is available in the Office of the Registrar.

38 / Graduation Requirements

The Bachelor of Arts (A.B.) is awarded to degree candidates completing majors in the Humanities or Social Sciences divisions. Bachelor of Science (B.S.) degrees are awarded to candidates completing majors in the Natural Sciences and Mathematics division.

BACHELOR OF ARTS & SCIENCE -- DUAL DEGREE (A.B.-B.S.)

A student who has completed 43 or more course units and the major requirements for both the Bachelor of Arts degree and the Bachelor of Science degree may earn a dual degree. Interested students should contact the Office of the Registrar for additional information.

BACHELOR'S DEGREE IN SELF-DIRECTED INQUIRY

This is a special program for qualified students who wish to create an individual program of inquiry and study rather than complete the general academic requirements and a traditional major. Students may apply for admission concurrently with their application to the College or during their first year of study at Muhlenberg.

Students permitted to seek the bachelor's degree in self-directed inquiry will be required to complete introductory and capstone seminars designed specifically for the program. The seminars, combined with significant and frequent interactions with a faculty advisor, focus on fostering a coherent learning experience for students in the program.

Students may leave the self-directed inquiry program at any time. They should be aware, however, that a return to the traditional curriculum will almost definitely require additional time and courses to complete a degree program.

More information about the bachelor's degree in self-directed inquiry can be obtained from the program director, Dr. James Bloom, Department of English.

FINANCIAL OBLIGATIONS

All fees: comprehensive, room and board, and other charges (including fines) incurred by a student regardless of nature must be paid in a timely fashion. Students with outstanding balances will not be permitted to enroll for courses or participate in any College activities, including commencement exercises.

Final responsibility for meeting all degree requirements rests solely with the student.
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Academic Policies



The course offerings, rules, regulations and fees appearing in this catalog are announcements only and should not be construed as representing contractual obligations of Muhlenberg College. Muhlenberg College reserves the right to change its academic regulations, courses of instruction, comprehensive fee, charges for room and board or other fees, and degree requirements without notice, should it be the judgment of the College that circumstances warrant such changes. Any changes in federal or state law will supersede College policies and requirements published here.

Admission to and attendance at the College are conditional upon compliance with the rules and regulations of the College as now established or hereafter revised, including the Academic Behavior Code and the Social Code. Many of the regulations are published in this catalog; others may be found in the Student Handbook. It is the responsibility of each Muhlenberg College student to know and abide by the regulations of the College.

COURSE LOAD

A full-time degree candidate normally enrolls for 4 course units per semester. The maximum course load for students during their first semester is 4.5 course units. A maximum course load for students during all other semesters is 5.5 course units.

Students are permitted to register for two semesters of five course units during the initial registration period (2 semesters of five and 6 semesters of four). At all other times, enrollment exceeding 4.5 course units may be requested during the initial registration period and will be honored as space allows after all students have had their first opportunity to enroll. Students must have a cumulative GPA of at least 2.000 to enroll a “third semester of five.”

In order to maintain full-time status, a student must register for at least 3 course units per semester. Students who wish to register for fewer than 3 course units may apply

for part-time status in the Office of the Registrar. Part-time students will incur tuition charges at the current per course unit rate plus all fees.

AUDITING COURSES

Students in good academic standing may ordinarily audit one course per semester with the approval of the instructor. Instructors must explicitly detail their expectations for students auditing their courses at the beginning of the semester and students must seek the consent of their faculty advisor. Ordinarily, students auditing a course are expected to complete all assigned reading and participate in class discussions but will not be required to submit written work or take exams. Students may change a course from audit (no course unit attempted) to a regular course unit basis or vice versa during the add/drop period with the approval of the instructor and the faculty advisor. The student's transcript will list the audited course with a grade of "AU" if the student has satisfactorily completed the audit. If the student fails to fulfill the expectations of the audit, no notation will appear on the transcript.

INDIVIDUALIZED INSTRUCTION (INDEPENDENT STUDY/RESEARCH, INTERNSHIPS, AND PRACTICA)

An internship is work experience undertaken for the purpose of applying knowledge from the classroom to a practical work environment and actively reflecting on that activity. Internships will be graded pass-fail. A practicum is an internship required by a major. Practica are assigned letter grades, A through F.

An independent study/research course can vary by academic department or discipline. It may be a student-inspired and student-initiated project or a faculty-directed research project. Independent studies/research courses must have assigned letter grades, A through F. Independent study/research courses normally do not cover the same material as or material similar to that covered in regularly offered courses.

Students may enroll only one internship or practicum during a term except for internships taken as part of approved programs such as the Semester in Washington, D.C., Dana Associates, and study abroad. Students may enroll for independent study/research courses during a term, but only one independent study/research course may be taken concurrently with an internship or practicum. Students participating in special programs, such as the Washington Semester or study abroad, are exempt from term-based enrollment limits on internships, practica or independent study/research courses. The approval of the appropriate department head, the academic advisor, and a faculty sponsor are required for all individualized instruction.

No more than a total of 4 course units may be earned through any type of individualized instruction to meet the 34 course unit degree requirement except as required by special programs. No internship, practicum or independent study/research course may be used to satisfy a general academic requirement. Internships do not count toward the three course pass-fail limit.

Independent Study/Research

Independent study/research courses must be registered by the drop/add deadline of the term in which they are recorded. Credit for independent study/research courses cannot be awarded retroactively.

Each independent study/research course is to be designed in consultation with a faculty sponsor. Ordinarily, no more than one course unit is awarded for each course, and no fewer than 9-12 hours of work per week (126-168 hours per term) are required for each course unit earned.

For all such courses, a learning contract will describe the goals of the independent study/research and specify what work will be done by the student. Independent study/research courses are assigned letter grades, A through F. For student-inspired and student-initiated independent study/research courses, the student must submit a proposal to the faculty sponsor before registering for the course.

Internships and Practica

Internships and practica are limited to full-time, degree-seeking students who have completed at least 16 course units in good academic standing or part-time students enrolled through the Wescoe School of Muhlenberg College.

Internships and practica must be registered prior to the end of the third week of classes in the term in which the work is recorded. For the summer term, internships and practica must be registered no later than a date noted in the summer academic calendar. The deadline for submitting final grades for such courses is that term's deadline for the final grades. Credit for internships and practica cannot be awarded retroactively.

Each internship or practicum is to be designed in consultation with a faculty sponsor and an on-site supervisor. Ordinarily, no more than one course unit is awarded for each internship or practicum, and no fewer than 9-12 hours of work per week (126-168 hours per term) are required for each course unit earned.

Such courses will include an academic project to be defined by and submitted to the faculty sponsor for evaluation. This academic project may be written or presented, at the discretion of the faculty sponsor. The internship or practicum on-site supervisor will submit a written evaluation of the student's work, which the faculty sponsor will take into consideration when assigning a grade. Internships will be graded pass-fail. Practica are assigned letter grades, A through F.

For all internships and practica, the faculty sponsor must explicitly detail his or her expectations for the student as early as possible in planning the experience. This learning contract describes the goals and what work will be done for each internship or practica. The faculty sponsor normally evaluates a student's work in an individualized instruction course according to standards at least as high as those used to evaluate work in traditional courses.

An internship manual with guidelines and sample learning contracts is available through the Office of the Dean of the College for Academic Life.

PASS-FAIL

Full-time, degree-seeking students who have completed at least 16 units with a cumulative GPA of 2.000 or more may elect to enroll for one course unit per semester on a pass-fail basis up to a total limit of three. One of the three pass-fail courses may be taken in the same academic division as the student's major or minor, but not within the discipline of the major or minor program itself. Courses designated "pass-fail only" are exempt from the pass-fail requirements described here.

No course for which a student elects to enroll on a pass-fail basis may be used to satisfy a general academic requirement or major/minor requirement. "Pass-fail only" courses offered within the student's major or minor also do not meet any degree requirement.

Only 20 percent of the total enrollment in a course shall be open to students electing the pass-fail option, unless this restriction is specifically waived by the instructor. The instructor shall be notified that a student is enrolled in the course on a pass-fail basis, and the grade submitted to the Registrar must be either "P" or "F." A "P" should be considered the equivalent of a traditional "D" or higher.

Courses enrolled on a pass-fail basis that are awarded a grade of "P" will not be used in computing the GPA but will be counted as course units toward graduation; courses failed will be computed in the GPA. Students may change a course from pass-fail to traditional grading or vice-versa only through the add/drop period of the semester.

ACADEMIC RENEWAL

Academic renewal may be extended to students returning to Muhlenberg after a prolonged absence. This process affects a student's cumulative GPA and allows him/her to "start over." Students previously enrolled at Muhlenberg who have not been enrolled at the College in at least 10 years can exercise this option pursuant to the following regulations:

1. The student must consult with the Dean of the Wescoe School or the Dean of the College for Academic Life, as appropriate, and course selection must be approved by the Dean before the student may enroll.
2. The option may be exercised only after three course units have been completed with a grade of "C" or better. The student must initiate the procedure; it will not be automatic.

3. All courses and grades will remain on the student's transcript and be used for graduation honors; courses set aside for academic renewal will be identified.
4. Courses in which grades of "C-" or better were earned prior to return will be counted toward degree requirements but will not be included in the student's cumulative GPA.
5. Courses based on credit hours will be converted to course units according to the existing course conversion procedures which apply to all Muhlenberg students.
6. This option can be extended only once to any individual student.

CROSS REGISTRATION: LEHIGH VALLEY ASSOCIATION OF INDEPENDENT COLLEGES (LVAIC)

Full-time, degree-seeking students who have completed at least 7 course units in good academic standing may enroll for up to two courses per semester at any one of the LVAIC member institutions (Cedar Crest College, DeSales University, Lafayette College, Lehigh University and Moravian College). The student must obtain approvals from his or her faculty advisor. Courses must not be offered regularly by Muhlenberg College and must be within the bounds of a regular course load.

Courses enrolled through the LVAIC cross-registration process are considered Muhlenberg courses for degree requirement and grade point average purposes. Further information regarding the LVAIC policy may be obtained in the Office of the Registrar.

TRANSFER COURSES

Almost all courses taken elsewhere must be *transferred* to Muhlenberg College. Courses offered through the LVAIC consortium and any course specifically identified in the College catalog, such as the London Theatre Program at Goldsmith's College, the business program at the University of Maastricht in the Netherlands, or the Washington Semester are the only exceptions.

No more than *17 transferred* course units may contribute to the 34 course units required to earn a bachelor's degree at Muhlenberg. The College will accept no more than 5 course units for transfer during a traditional academic term (fall or spring), while 4 course units is the limit for any type of summer term. Only courses for which a student has earned a "C-" or better will be considered for transfer to Muhlenberg. Courses in which a traditional letter grade (A-F) was not earned will be considered for transfer only if additional documentation detailing successful completion is provided. Grades earned in transferred courses will not be included in a student's general Muhlenberg grade point average. It should be noted, however, that graduation honors are calculated based on *all college coursework attempted*, regardless of where the

instruction took place and whether or not it successfully transferred to Muhlenberg. Once courses have been transferred, they become part of the permanent record and cannot be removed.

Many institutions may not use a course unit system similar to Muhlenberg's. For the purpose of all transfer transactions, the Muhlenberg course unit should be considered equivalent to 4 semester credit hours. In all cases, Muhlenberg College can accept transfer courses only with an official academic transcript from a regionally accredited higher education institution where courses have been successfully completed. Additional information may be obtained in the Office of the Registrar.

CHANGING COURSES

Students may add and/or drop courses without penalty through the first eight class days of the traditional semester with the approval of their faculty advisor and the course instructor. Enrollment in courses is closed at the conclusion of the add/drop period. The last day to add/drop is identified each semester on the College's academic calendar.

WITHDRAWAL FROM COURSES

Students may withdraw from courses after the add/drop period until the end of the ninth week of the semester with the approval of the academic advisor. A "W" grade will be assigned indicating that the student has withdrawn from the course. No course may be dropped after the ninth week of the semester except for documented medical reasons certified by the Director of Student Health or the Director of Counseling. The last day to withdraw is identified each semester on the College's academic calendar.

<p>All students are responsible for their own enrollment. Failure to properly add, drop, or withdraw from a course may result in no course units awarded and/or a failing grade.</p>

PROGRAM OPTIONS

Students at the college are allowed to graduate with a single major, a single major with one or two minors, or a double major. Under circumstances where a student meets the requirements for majors or minors in excess of the previously stated limits, the student must choose which majors or minors he or she wants the college to recognize at graduation. Any course accepted by the college can be counted simultaneously towards the requirements of both major and minor programs.

MAJOR PROGRAM

Students generally select a field of study during the fall semester of the sophomore year, although major declarations may be made earlier or later in consultation with the

academic advisor. In order to enter and remain in a department as a major, a student must maintain at least a 2.000 cumulative GPA in courses prescribed by the department. At the end of any semester, a department may drop a student who fails to meet the minimum GPA standard. Students in this situation may remain at the College without a major for a maximum of two semesters, during which time they may seek admission to a new department or attempt to gain re-admission to their former major.

Students must be accepted into a major prior to the senior year and must complete a major program in order to graduate as a part of the College degree requirements.

A student may change from one major to another with the approval of the appropriate department heads. Official field of study declarations must be completed through the Office of the Registrar.

MINOR PROGRAM

Minor programs are also available in many departments. Course work required for a minor is approximately three-fifths of that required for a major and in no case is less than 5 course units. All rules which currently apply to majors also apply to minors. Any course accepted by the college can be counted simultaneously towards the requirements of both major and minor programs.

COOPERATIVE PROGRAMS

Muhlenberg offers a cooperative 3-2 year combined plan program in **Engineering** with Columbia University and Washington University. While at Muhlenberg, the student completes the basic preparatory courses for engineering including mathematics through differential equations, computer science, physics, chemistry, and advanced courses selected on the basis of the field of engineering interest as well as all other general academic requirements. Admission to the affiliated program is automatic upon recommendation by Muhlenberg for students with a cumulative GPA of at least 3.000. This program involves three years at Muhlenberg and two years in the professional engineering school leading to the completion of the B.S. degree from Muhlenberg and a B.S. in engineering from the cooperating institution. The 4-2 program involves completion of the B.S. degree in four years at Muhlenberg, then continuing in the engineering program for 1½ to 2 years leading to the B.S. degree in engineering. Students interested in these programs should consult Dr. Robert Milligan, Department of Physics.

Muhlenberg College has a cooperative program in **dentistry** with the University of Pennsylvania School of Dental Medicine. Muhlenberg students who are accepted into this program attend Muhlenberg for three years and the School of Dental Medicine for four years. By completing the program, they earn a B.S. degree from Muhlenberg with a biology major and a D.D.S. degree from the University of Pennsylvania. Additional information may be obtained from Ms. Lori Provost, Health Professions Advisor.

Muhlenberg College also has a cooperative program with **Drexel University School of Medicine** and the Lehigh Valley Hospital. Students admitted as Lehigh Valley Hospital Scholars into the Integrated Muhlenberg College/Drexel Program complete all academic requirements of a Muhlenberg student as per the stipulations of the program. Students must meet all program requirements of the Lehigh Valley Hospital and Drexel University School of Medicine. Additional information may be obtained from Ms. Lori Provost, Health Professions Advisor.

Additionally, Muhlenberg College has a joint program with the State University of New York (SUNY) State College of **Optometry**. This affiliation agreement allows selected students to complete an A.B. or B.S. degree from Muhlenberg and an O.D. degree from SUNY-Optometry in seven years. Students must maintain the required academic and personal interview standards set forth by the respective institutions. Additional information may be obtained from Ms. Lori Provost, Health Professions Advisor.

Students interested in **environmental science** or **forestry** may enter the 3-2 year or 4-2 year combined degree program between Muhlenberg College and the School of the Environment at Duke University. Duke University requires at least one introductory course in calculus, statistics, microeconomics, and computer science. Quantitative and analytical abilities are an essential part of this program, so math and statistics courses, beyond the minimum prerequisites, are strongly recommended. Before attending Duke, the student must complete all Muhlenberg College graduation requirements and the requirements of one's chosen major, usually biology, chemistry, environmental science, mathematics, economics, or computer science. For the 3-2 year program a student will receive a B.S. from Muhlenberg College after completing the first year at Duke. Duke University will grant a Master of Environmental Management (M.E.M.) or a Master of Forestry (M.F.) upon completion of the entire program. Areas of study include: biohazard science, coastal environmental management, environmental toxicology, chemistry, risk assessment, resource ecology, resource economics and policy, water and air resources, and forest resource management. Students interested in this program should consult Dr. Richard Niesenbaum, Department of Biology.

Finally, Muhlenberg, in cooperation with [Lehigh University](#), offers a [voluntary Army Reserve Officer Training Corps \(AROTC\) Program](#), within the terms of the cross-registration agreement between the two schools. Grades and course work completed in the 4-year Army ROTC program will be included in the student's academic record at Muhlenberg College. However, only the final 2 courses in the program (the 100 level MS courses) may be counted toward the 34 course unit graduation requirement. Additional information on the program is available in the Office of the Registrar.

CLASS ATTENDANCE

Muhlenberg College recognizes that a college environment should foster student responsibility. Students are expected to attend classes regularly but are responsible for

governing themselves in this matter. It is recognized that interaction in the classroom enhances learning and is usually a significant part of how students' overall performance will be evaluated.

The College recognizes the value of extracurricular experience, but the academic program has priority at Muhlenberg. Moreover, scheduled classes have priority over all other activities. In cases of unavoidable conflict, students have the responsibility of informing their instructors as soon as possible and reaching some kind of acceptable resolution. Absence from a class will not be accepted as an excuse for not mastering class material. The student is responsible for all information presented, the discussion, and the conceptual analysis that take place during classes.

Instructors should inform students in the first week of class of their policy regarding the relationship between attendance, interaction in the classroom and evaluation in the course.

A student who does not attend the first meeting of a course *may* be dropped from the course in order to make room for students waiting to enroll. *Students should not assume, however, that missing the first course meeting ensures that they will be dropped from a course.* Non-attendance drops will be processed only at the instructor's request. Again, all students are responsible for their own enrollment; failure to properly add, drop, or withdraw from a course may result in the award of no course units and/or a failing grade.

DEAN'S LIST

Outstanding academic achievement will be recognized by the Deans of the College each semester. Students enrolled for 3 or more course units, having a term GPA of at least 3.500 with no grades of D, F, U, or VF for the semester will be eligible for Dean's List. Students with an incomplete grade will not be eligible for inclusion on the Dean's List until the work is completed and a final grade is recorded.

GRADUATION HONORS

Muhlenberg College grants degrees with honors in three categories: *cum laude*, *magna cum laude*, and *summa cum laude*, based on the cumulative average of all collegiate coursework. Students will be considered for graduation honors only if they achieve a cumulative GPA of 3.500 or greater in 17 or more course units offered through Muhlenberg. **Honors will be assigned, however, based on the cumulative GPA achieved in all graded collegiate work ever attempted, including courses not accepted for transfer.** Students first enrolled in Fall 1998 or thereafter with a cumulative GPA of 3.500 or greater but less than 3.700 will be recognized as *cum laude* graduates; students with a cumulative GPA of 3.700 or greater but less than 3.900 will graduate *magna cum laude*; and students with a cumulative GPA of 3.900 or more will be honored as *summa cum laude* graduates.

HONOR AND RECOGNITION SOCIETIES

Established in 1776 at the College of William and Mary, Phi Beta Kappa is a distinguished fellowship of scholars devoted to liberal education and intellectual pursuits. The Muhlenberg chapter was granted a charter by the national honor society in 1967. Based on national standards, election to Phi Beta Kappa represents the most outstanding academic achievement in the arts and sciences.

Muhlenberg has chapters of honor societies and recognition societies in many academic disciplines. Honor societies include Omicron Delta Epsilon (economics), Omicron Delta Kappa (leadership), Phi Alpha Theta (history), Phi Sigma Iota (romance languages), Phi Sigma Tau (philosophy), Pi Mu Epsilon (mathematics), Pi Sigma Alpha (political science), Psi Chi (psychology), Theta Alpha Kappa (religious studies and theology), and Sigma Tau Delta (English). Recognition societies include Delta Phi Alpha (German), Dobro Slovo (Slavic studies), Eta Sigma Phi (classical languages), and Phi Kappa Delta (forensics). Phi Sigma Tau, the national philosophy honor society, was founded at Muhlenberg in 1930. Muhlenberg College also maintains a chapter of Alpha Phi Omega, a national service fraternity.

ACADEMIC BEHAVIOR CODE

The Academic Behavior Code is a communal expression of the importance of academic honesty and integrity. Violations of the Code are violations of community. The Code, to which all incoming students subscribe, governs all College activities, including but not limited to methods for evaluating academic achievement such as examinations, quizzes, tests, themes, reports, recitations and laboratory exercises. The Academic Behavior Code is printed in full in the Student Handbook and is available on the web; students should familiarize themselves with its provisions.

ACCESS TO EDUCATION RECORDS

Muhlenberg College strictly complies with all provisions of the Family Educational Rights and Privacy Act (FERPA), a federal statute passed into law in 1974 that provides the basis for dealing with student information at post-secondary educational institutions. FERPA regulations ensure a minimum standard for the access to, the use of, and the release of information from education records.

Students have the right to inspect their records and to challenge anything in them that they perceive to be inaccurate or misleading. The College must provide reasonable accommodations to accomplish these tasks. The office which creates and maintains the record in question is responsible for determining what is reasonable. FERPA regulations also stipulate that the College must protect all information in a student's education records from being disclosed to anyone but the student, without the student's written consent. Legal exceptions to this specific prohibition include: information released to school officials with a legitimate educational interest, compliance with a

lawfully issued subpoena, provisions for directory or public information, and the release of information to parents of financially dependent students.

More information about Muhlenberg's student information release policy can be found in the Student Handbook or through the Office of the Registrar (www.muhlenberg.edu/mgt/registrar).

GRADING

Quality points assigned to each traditional letter grade by course unit, effective Fall 1992:

Grade	1 course unit
A+, A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D	1.0
F	0.0

- AU Successful completion of audit (no course unit awarded, no GPA calculation).
- I Incomplete. An incomplete may be assigned when the student presents a compelling reason for the inability to complete course requirements by the end of the term. Incompletes will not be calculated in the GPA until such a time as they are converted into a traditional letter grade. Completion of the work must be arranged with the instructor and completed no later than 60 days after the deadline for submitting final grades for the semester. An incomplete grade not assigned a traditional letter grade in 60 days will be recorded as "F".
- NG No grade issued.
- NR Instructor has not reported a grade.
- P Successful completion of pass-fail course (course unit awarded, no GPA calculation. Courses failed will be computed in GPA.)
- S Successful completion of zero unit course (no course unit awarded, no GPA calculation).
- U Unsatisfactory performance in a zero unit course (no course unit awarded, no GPA calculation).
- VF Academic Behavior Code Violation (no course unit awarded, treated as failing for GPA calculation).
- W Student withdrew (no course unit awarded, no GPA calculation).

An asterisk (*) indicates that an incomplete was initially recorded for the course, then changed to the letter grade which is currently reflected.

A student's grade point average (GPA) is the sum of quality points divided by the total attempted course units.

REPEATED COURSES

Courses in which the student earns a "B-" or greater cannot be repeated. If a student repeats a course, all grades for the course are calculated into the GPA and listed on the academic record; however, only the course earning the first passing grade is counted toward the 34 course units required for graduation.

ACADEMIC DIFFICULTY

(WARNING, FORMAL PROBATION, AND ACADEMIC SUSPENSION)

The College endeavors to help students avoid academic difficulty. Historically, the most successful students attend class regularly, complete and submit assignments in a timely fashion, and seek assistance from instructors, advisors, Academic Support Services, or Student Health Services at the first signs of difficulty. Moreover, students who are successful academically have learned to balance extracurricular activities with academics.

Academic performance is monitored closely by the Dean of the College for Academic Life each term. The Dean will contact students at the conclusion of each term whose academic performance indicates a cause for concern. **Academic warning** may be triggered by any combination of two or more failing grades, incomplete grades, unsatisfactory grades, or course withdrawals in a term, a term grade point average below 1.500, or a cumulative grade point average less than the standards described in the table that follows.

Formal **academic probation** indicates that the quality of the student's work is below the level that might reasonably be expected to lead to graduation. A term grade point average below 1.000 or a cumulative grade point average less than the standards described below identify those students eligible for formal probation. All student performance indicating an eligibility for formal probation will be reviewed by the Dean of the College for Academic Life. After that review, students experiencing serious academic difficulties will be placed on formal probation. If, at the end of the first semester (five or fewer units), a first year student has less than a 1.2 grade point average (GPA), there are two alternatives for academic status: **academic probation** or **academic suspension** (mandatory academic leave of absence for one semester). Student progress during the probationary period will be carefully examined. At any time during the period, typically no more than two terms, the College may remove the student from probation, continue the student on probation, or dismiss the student from Muhlenberg. Furthermore, students on formal probation seeking to enroll additional courses beyond what is considered a "normal load", either at Muhlenberg or elsewhere, are permitted to do so only at the discretion of the Dean of the College for Academic Life; this provision includes enrollment in any type of summer term.

Cumulative academic performance is gauged on the number of course units attempted at Muhlenberg plus any transferred course units. Cumulative grade point averages less than the standards described in the table indicate the level of academic difficulty.

Attempted Course Units	Academic Probation or Suspension	Academic Warning
5 or less	Less than 1.200	Less than 1.500

Attempted Course Units	Academic Probation	Academic Warning
5.25 through 10	Less than 1.500	Less than 1.800
10.25 through 16	Less than 1.800	Less than 2.000
More than 16	Less than 2.000	

Finally, the College takes the position that any student permitted to enroll should be allowed to judge the wisdom of participating in extracurricular activities. Accordingly, a student experiencing academic difficulty may participate in such activities. Any student placed on academic probation or warning, however, is urged to give thoughtful consideration, in consultation with his or her academic advisor, to the structure of the total College program, curricular and extracurricular.

CLASS STANDING

First-year students have earned fewer than 7 course units; sophomores, 7 or more, but fewer than 16; juniors, 16 or more, but fewer than 25 and seniors, 25 or more.

DISMISSAL, SUSPENSION AND READMISSION

Muhlenberg College reserves the right to dismiss or suspend any student for the following reasons: (a) academic deficiencies; (b) failure to gain acceptance into a major field of study; or (c) conduct deemed to be detrimental to the interests of the College. In such cases, neither the College nor any of its officers shall be under any liability whatsoever for such dismissal or suspension. The College will not accept transfer courses from any institution earned while a student is serving a disciplinary suspension.

Students dismissed for academic reasons may be readmitted upon formal application to the Dean of the College for Academic Life after the lapse of at least one academic year. Such an application should give strong evidence of a student’s ability to attain a degree. If the application is approved, readmission will be probationary for a period of one term only. A second dismissal will be final, and no application for readmission will be entertained.

WITHDRAWAL FROM COLLEGE

A student who wishes to officially withdraw from the College must notify the Office of the Registrar. A student must complete withdrawal procedures prior to the beginning of the first semester in which he or she is not enrolled to ensure that the academic record will accurately reflect his or her intentions. All financial obligations must be satisfied before an official withdrawal can be granted or the academic record can be released. At the time of withdrawal, the student's identification card must be surrendered to the Controller.

LEAVE OF ABSENCE

A student who wishes to take a leave of absence from the College must notify the Office of the Registrar. Requests must be submitted prior to the beginning of the semester when the leave would take effect. Approval of a leave of absence requires the student to surrender his or her identification card to the Controller. A leave of absence may extend no more than four consecutive terms (two full academic years). A student requesting a leave of absence for medical or psychological reasons must consult the Director of Student Health or the Director of Counseling. Initiating a request for a medical leave of absence may occur no later than 60 days after the conclusion of the term. The College will not accept transfer courses from any institution earned while a student is on a medical leave of absence.

RELEASE OF INFORMATION FROM ACADEMIC RECORDS, INCLUDING TRANSCRIPTS

Muhlenberg College complies with all federal regulations regarding the release of education records as established by the Family Educational Rights and Privacy Act. All requests to release information from the student's academic record must include his or her legal signature. This requirement specifically prohibits telephone and e-mail requests. Faxed requests are acceptable. The student is the only person who can authorize the release of information from his/her academic record. No one else (parents, friends, spouses, employers, etc.) may do so.

All requests should be directed to: Muhlenberg College, Office of the Registrar, 2400 Chew Street, Allentown, PA 18104-5586. An information release request should include: the student's full name at time of attendance, social security number, dates of attendance, current address, address where the information should be sent, and handling instructions, if applicable. An administrative fee is assessed for most record release services. Please contact the Office of the Registrar for more information.

STUDENTS WITH DISABILITIES

Students with disabilities are expected to develop good self-advocacy skills and to have full knowledge of the impact of the disability. They should also disclose the

disability to the designated campus professional, provide appropriate documentation, and request accommodations within a reasonable time frame. Designated campus professionals include the Director of Academic Support Services, the Director of Health Services, and the Director of Counseling. Incoming students are encouraged to submit documentation as soon as they make their decisions to attend Muhlenberg, certainly no later than the advising period in June.

The faculty and administration will endeavor to provide reasonable accommodations that are requested in a timely manner, are appropriately documented, and do not compromise the integrity of the course or degree. The College will endeavor to protect the student from discrimination and to educate the faculty about the needs of individuals with disabilities. Although faculty members are ultimately responsible for providing reasonable access within the class, it is the student's responsibility to follow established procedures for requesting those accommodations.

The student plays a vital role in the process of requesting accommodations. The process includes the following steps:

1. The student must provide recent, appropriate documentation to the designated campus professional and make a follow-up appointment to discuss accommodations. The disability must fall within the guidelines of the Americans with Disabilities Act: An individual with a disability is one who has a significant, chronic physical or mental impairment that substantially limits a major life activity. Any request for accommodations must be based upon appropriate, relevant information in the documentation.
2. When the accommodation involves a faculty member, the student must meet with him or her as well.
3. Any concerns, disputes, or questions regarding accommodations should be first directed to the professional who holds the documentation and then to the appropriate Dean.

After appropriate assessment of a student's documentation and consideration of the student's current functional disability, campus professionals will make recommendations regarding support services and/or accommodations. Accommodations do not include personal services such as attendants, drivers or speech therapists. All requests will be reviewed on a case-by-case basis.

For further information refer to the Students with Disabilities world-wide-web page at www.muhlenberg.edu/students/acasrvcs/disabilities.

Courses Of Instruction



PROGRAMS OF STUDY

Muhlenberg offers four degree programs: the Bachelor of Arts (A.B.), Bachelor of Science (B.S.), Bachelor of Arts & Science--Dual Degree, and a Bachelor's in Self-Directed Inquiry. A.B. majors include accounting, American studies, anthropology, art, business administration, communication, dance, economics, English, French, German, German studies, history, history/government, international studies, music, philosophy, philosophy/political thought, political economy, political science, psychology, religion, Russian studies, sociology, Spanish, and theatre. B.S. majors include biochemistry, biology, chemistry, computer science, environmental science, mathematical sciences, natural sciences, neuroscience, physics, and physical science. The natural sciences major is often elected by pre-health students. The Bachelor of Arts & Science--Dual Degree is an A.B./B.S. degree of 43 or more units; the Bachelor's degree in Self-Directed Inquiry comprises a highly individualized program constructed in consultation with faculty members. See the appropriate pages for the requirements for each degree and major.

The College also offers fully accredited programs leading to certification in both elementary and secondary education. Students must complete a major in an academic discipline together with the requirements for certification.

In addition to the pre-health and education programs, the College offers full pre-professional programs in such fields as law and the ministry. For cooperative programs, see page 45 and for pre-professional programs, see page 268.

WRITING PROGRAM

Muhlenberg College offers a cross-curricular writing program in which faculty from almost every department participate. As a requirement for graduation, students are required to take a minimum of three officially designated writing-intensive (W) courses: one First-Year Seminar, one W-course selected from anywhere in the curriculum, and one W-course designated by the student's major.

A writing-intensive course is a regular academic course in which enrollment is limited to twenty students, and students complete a minimum of fifteen pages of writing broken into at least three assignments. One of these assignments must be a revision in response to the instructor's written comments about the thinking in the original draft.

The basic premise of the writing program is that writing is necessary to thinking and learning; it is an essential way of acquiring knowledge and of arriving at ideas about it. Another primary assumption of the program is that the ability to write well is not a skill one can acquire in a semester of grammar study. Instead, students are encouraged to take a number of writing-intensive courses throughout their careers at the College. The Writing Program is supported by a Writing Center that is staffed by trained peer tutors with majors in a wide range of disciplines.

In exceptional cases, students may appeal to the Writing Program Committee to receive special W-credit for a course that is not designated as a W. The fact that a student has done a significant amount of writing in a course is not sufficient reason for assigning special W-credit, because a writing-intensive course is a particular kind of collaborative learning experience. Because students may not satisfy graduation requirements with independent studies, only regular courses can be considered for writing-intensive status. Guidelines for applying for special W-credit are available in the Registrar's Office. Questions about W-courses in general and special W-credit in particular should be directed to Jill Stephen or David Rosenwasser, Department of English.

FIRST-YEAR SEMINARS

First-Year Seminars are small, discussion-oriented courses that provide entering students with the opportunity to work closely with a faculty member. Required of all first-year students and normally limited to an enrollment of 15, First-Year Seminars promote intellectual discussion and critical thinking, reading, and writing skills.

Offered by faculty members from departments throughout the College, the seminars vary in their subjects and aims. Some examine a topic from an interdisciplinary perspective; others focus on particular issues or questions within a discipline. What all of the First-Year Seminars share is an emphasis on thinking critically about the values and assumptions underlying various approaches to knowledge.

Because they are primarily concerned with developing critical thinking, reading, and writing, First-Year Seminars are writing-intensive. Evaluation will be based on students' writing rather than on examinations. The seminars will teach participants how to formulate a thesis, how to collect, evaluate, and cite evidence that supports and qualifies this thesis, and a seminar will teach participants what an argument, analysis, or interpretation is and will give students practice in constructing and evaluating sound ones. Students will also learn how to revise their work, rethinking their ideas with the help of the instructor's comments on preliminary drafts. In sum, First-Year Seminars introduce students to the life of the mind—to what it means to think deeply, to talk and write critically about ideas; seminars model and encourage students to participate in thoughtful, critical, and intellectual reflection and conversation.

SELF-DESIGNED MAJOR

Highly motivated students may propose a self-designed major not falling within one of the departments, divisions, or area study programs listed above. The proposal must include a coherent rationale for the structure and course content of the major and an endorsement of a faculty member willing to serve as an advisor. This proposal should be submitted in writing to the Dean of the College for Academic Life after consultation with the departments involved. The proposal must be approved by Curriculum Committee and the Provost, normally prior to the beginning of the junior year and never later than the end of the fifth semester. A student wishing to pursue this option should contact the Dean of the College for Academic Life.

SEMESTER IN WASHINGTON, D.C.

Muhlenberg cooperates with thirteen colleges in the Lutheran College Washington Consortium who together offer a semester in Washington. The semester (fall or spring) is designed for juniors and seniors representing a variety of academic majors. In addition to seminars drawing upon the special resources available in Washington, there are hundreds of internship possibilities in government, social service agencies, religious groups, medicine, public interest organizations, business and the arts.

EDUCATION ABROAD PROGRAMS

In a world that is becoming increasingly interdependent, study abroad represents a significant means by which students may better prepare themselves to face challenges of the future. Muhlenberg College encourages students in all science, social science, arts, and humanities majors to study overseas at quality institutions in Europe, Australia, Asia, Latin America and Africa. Muhlenberg supports two such discipline-specific education abroad opportunities: the London Theatre Program at Goldsmiths College, University of London during the fall semester, and the program for Accounting, Business and Economics majors at the University of Maastricht in the Netherlands, also offered during the fall semester. In addition, Muhlenberg has

established exchange opportunities with several schools in European countries and in Argentina, Australia and Japan.

Typically students study abroad for either a semester or for the academic year during their junior year although, upon receiving approval from the Dean of the College for Academic Life, students may study abroad during the fall semester of their senior year. Opportunities for summer study are available through several Muhlenberg departments and through the Lehigh Valley Association of Independent Colleges. Students who study abroad during the academic year receive the same financial aid package that would be provided were they to remain on the Muhlenberg campus.

Students interested in education abroad programs should consult with their faculty advisor and the International Programs Office staff during the fall semester of their sophomore year. To apply for study abroad, students first complete a Muhlenberg College Education Abroad application, supplying faculty references and their academic advisor's approval. Once approved to study abroad by Muhlenberg, students complete host institution application materials. The International Programs Office will forward all application materials to the overseas institution. Detailed information regarding admission procedures, transfer credit and the fee structure is available from the International Programs Office.

DANA ASSOCIATES PROGRAM

The Dana Associates Program of Muhlenberg College provides a four-year experience with seminar, independent research and internship components for outstanding students. As applications are received by the College, exceptional applicants are identified and invited to submit a separate Dana application. Invitees are generally near the top of their high school class, score 1300 (Critical Reading and Math) or greater on the Scholastic Aptitude Test and, equally important, exhibit distinctive creativity and talent.

MUHLENBERG SCHOLARS PROGRAM

The Muhlenberg Scholars Program is designed to enhance the education of talented students by providing unique opportunities for intellectual exploration, growth and development. Outstanding first-year students are invited to join the Scholars Program when they are admitted to the College. These individuals will normally have Scholastic Aptitude Test scores of 1300 (Critical Reading and Math) or greater, have graduated in the top 10th of their high school class, and have significant extracurricular accomplishments. Students already studying at Muhlenberg may be admitted to the Scholars Program no later than the fall semester of the sophomore year. To be considered for the program, students should be nominated by a faculty member and have an overall grade point average of at least 3.500.

RJ FELLOWS PROGRAM

The RJ Fellows Program was established at Muhlenberg College by the Scheller family in order to strengthen and develop the decision-making competencies of bright, talented, and hard-working liberal arts undergraduates. The Program realizes that the future is, and will always be, uncertain, and that personally fulfilling and productive lives derive from each individual's ability to make intelligent and ethical decisions in the face of this uncertainty. While acknowledging that human beings inevitably learn many life lessons through trial and error, the Program also believes that education can be a powerful force in strengthening each individual's ability to assess the future and make wise choices. The Program's founders assert that liberal arts education, in particular, has the potential to provide individuals with a variety of analytical, problem-solving, ethical-assessment, and decision-making skills. The RJ Fellows Program is, therefore, deliberately interdisciplinary. Courses affiliated with the Program focus on process and methodology as well as information, and the Program itself provides opportunities for students to reflect on and make connections among lessons learned and the implications of those lessons for making wise decisions.

DEPARTMENTAL HONORS PROGRAMS

Some academic departments have honors programs to provide special opportunities for the best qualified and most highly motivated students to develop their capacities for independent thinking, original research and disciplined scholarship. Honors work consists of seminars, guided independent study, individual research or participation in faculty research, as well as a certain amount of regular course work. Successful honors candidates will be graduated with honors in the field of concentration; in addition, they still maintain eligibility for the traditional Latin graduation distinctions listed elsewhere in this catalog.

Further information about departmental honors programs may be found in the description of major programs.

ACADEMIC DIVISIONS AND DEPARTMENTS

Presently, the College is organized into three divisions as follows:

Humanities

- Art
- English
- Languages, Literatures & Cultures
- Music
- Philosophy
- Religion
- Theatre & Dance

Natural Sciences and Mathematics

Biology
Chemistry
Computer Science
Mathematical Sciences
Physical Education
Physics

Social Sciences

Accounting, Business & Economics
Communication
Education
History & Classical Civilizations
Political Science
Psychology
Sociology & Anthropology

INTERDISCIPLINARY STUDIES

Interdisciplinary studies combine courses from more than one discipline, permitting students to explore an area of interest from several perspectives. In some cases, two fields are combined to form one major. In others, several disciplines are represented in the major or minor requirements. Where a major or minor is not available, students may concentrate on a topic of interest as they complete the general academic requirements and choose their electives. In this way, they may elect clusters of courses of special interest to them.

Interdisciplinary Majors

American Studies
German Studies
History/Government
Interdisciplinary Sciences
 Biochemistry
 Environmental Science
 Natural Science
 Neuroscience
 Physical Science
International Studies
Philosophy/Political Thought
Political Economy
Russian Studies

60 / Courses of Instruction

Interdisciplinary Minors

Asian Traditions
Environmental Studies
German Studies
Jewish Studies
Russian Studies
Women's Studies

Interdisciplinary Concentrations (majors or minors not available)

Latin American Studies
African American Studies
Non-Science Medical

Special Interdisciplinary Programs

Dana Associates
Muhlenberg Scholars Program
RJ Fellows Program
Self-Directed Inquiry Program
Semester in Washington, D.C.

THE WESCOE SCHOOL OF MUHLENBERG COLLEGE

The mission of the Wescoe School of Muhlenberg College is to provide lifelong learners the opportunity to continue and enhance their education and to do so in ways that recognize their experience, maturity, motivation, life circumstances and capacity for independent scholarship.

Lifelong learners are very different from traditionally aged full-time students. Recognizing this, we offer innovative programs of study with distinct and specialized opportunities. Wescoe students can complete a degree by enrolling in classes at night, during the day (on a limited basis) and on weekends.

Accelerated Programs

The Wescoe School offers the Bachelor's degree in an accelerated format for the following majors: Business Administration, Information Systems, and Human Resources Management. Students learn collaboratively in a feedback-intensive program that prepares them for leadership in their chosen field. The curriculum is designed for immediate application to the workplace and develops presentation, facilitation and problem-solving skills.

Students in this program complete 17 modules of study, attending class one night per week. They stay together as a unit the entire time and work to expand their intellectual and professional range.

Liberal Arts Programs

Adult students have the option to enroll for credit classes in several formats: the traditional 15-week program, 8-week sessions or weekend sessions. The 8-week and weekend sessions are available only to Wescoe students and incorporate pedagogical practices appropriate to this population.

Full-time day students may register for courses taught at an evening hour when those courses are part of the offerings appearing on the regular day schedule. Day students may register in courses offered through The Wescoe School 15-week session during the add/drop period on a space-available basis with permission from the appropriate department head. No more than one such course may be registered in any one semester and should be done only after consultation with the student's academic advisor.

Additionally, The Wescoe School offers post-graduate certificates in every major of the College, as well as a unique undergraduate certificate in selected majors. Many Wescoe students take courses to prepare for future graduate study or to upgrade or learn new skills. In addition to the Bachelor's degree, Wescoe students may earn the Associate of Arts degree in some majors or enroll in a non-credit enrichment course.

Summer Study

Muhlenberg College offers a variety of day and evening courses during a series of summer sessions. These courses, while typically offered in an accelerated format, are unlike the courses in other 8-week and weekend sessions because they incorporate pedagogy appropriate for full-time undergraduate students. All course units and grades earned through summer study at Muhlenberg are attributed to the total program of the student and influence the cumulative grade point average and academic standing of the student accordingly. Summer study materials are available through The Wescoe School in early March.

ACCOUNTING (ACT)

Head of Department: Professor Arthur Raymond

Associate Professor and Accounting Coordinator: Irwin

Associate Professor: Doran

Assistant Professor: Knox

Internship Director: Eisenberg

The Muhlenberg accounting program provides a unique opportunity for students to benefit from a strong liberal arts education, while obtaining knowledge and skills in accounting, finance, economics, and business. By proper selection of accounting major and elective courses, students will be prepared to continue on with graduate study or to pursue a variety of careers in public accounting, law, the corporate world, or not-for-profit organizations.

Courses focus on broad accounting concepts and issues, but also develop the communication, technical, and interpersonal skills necessary to succeed in the professional world today. Students are encouraged to enhance their leadership skills, develop high ethical standards, and to achieve their full potential throughout this program. A variety of options to pursue study abroad, obtain internships, or spend a semester in Washington, DC also exist.

COURSE DESIGN

All accounting courses include both written and oral communication, critical analysis of data, evaluation of ethical dilemmas, study of global issues, and use of information technology for research and presentation. Courses are designed and taught following guidelines prepared by professional organizations and the Accounting Education Change Commission (AECC).

Students learn in a state of the art computerized classroom using information technology as a tool for processing, analyzing, and communicating financial information. Students frequently work cooperatively and collaboratively to build teamwork and interpersonal skills as they analyze, make decisions, and apply critical and creative thinking skills. This prepares them for changing conditions and requirements in the professional world. Active learning is achieved by utilization of case studies and financial analysis of publicly held companies.

SPECIAL PROGRAMS

150 Semester Hour Options

Many students choose to earn their bachelor degree in accounting at Muhlenberg, while simultaneously taking additional coursework to receive a certificate of 150 semester hours of education. The American Institute of Certified Public Accountants and most state boards of accountancy require 150 semester hours of education prior to licensure as a Certified Public Accountant (CPA) in Pennsylvania. For students who

desire to be licensed in a state other than Pennsylvania, it is important for them to carefully research and plan their coursework to meet licensing requirements in the state of their choice. With this option, students graduate with 38 units (rather than 34) by taking four additional course units, above the requirements for graduation with an accounting major. Students accomplish this by taking courses or internships during the summer, or by enrolling in extra courses during the academic year.

Muhlenberg also has an articulation agreement with Lehigh University's Master of Science in Accounting and Information Analysis program. This allows students who carefully plan their coursework at Muhlenberg and who have strong academic records to be admitted into Lehigh's program as a fifth year of education.

Internship and Mentoring Opportunities

The Accounting, Business, and Economics Department has an extensive internship program that provides accounting majors with a wide range of opportunities to gain valuable work experience. Internships may be taken during the summer or during the students' junior or senior years and are available with Big Four public accounting firms, major corporations, and local businesses. Mentoring opportunities also exist with alumni, members of local professional organizations, and Big Four accounting firms.

Education Abroad

In addition to Muhlenberg's traditional education abroad programs, an international program has been designed especially for students in accounting, business, and economics. The program is offered through the Center for European Studies at the University of Maastricht in the Netherlands and would generally be enrolled during the fall semester of the junior year. In this program, students attend courses in European business, economics, and politics, taught in English. Besides deepening global and cultural awareness, students have opportunities to travel to France, Belgium, and Germany, all of which are nearby, and meet business and political leaders from those countries.

Semester in Washington, D.C.

Students who select this program have opportunities for accounting internships with public accounting firms, banks, government agencies, and not-for-profit organizations. In addition to the internship experience, the program includes seminars and field trips drawing on the special cultural and political resources available in Washington. Participants also experience living and working in our capital with students from other Lutheran colleges throughout the United States. Students frequently opt for this program during their junior or senior year or during the summer months.

Students who plan to complete the 150 hour requirement, study abroad, or participate in other special programs are encouraged to enroll ACT 101 Financial Accounting during the *spring* semester of their first year at Muhlenberg.

PROGRAM REQUIREMENTS

Writing and Speaking Skills

Most accounting courses include components designed to enhance students' communication skills, both written and oral. Majors are required to enroll in at least one writing intensive course (in addition to the First Year Seminar) in accounting. Many accounting courses also have formal presentation requirements. Faculty advisors will offer suggestions about coursework or other activities that will be helpful for further developing communication skills of individual students.

Major Requirements

In order to declare and remain an accounting major in good standing, a student must achieve and maintain a cumulative grade point average of at least 2.000 in courses applicable to the major. Major requirements must be taken at Muhlenberg, unless prior written permission is obtained from the department head or accounting coordinator. Students majoring or minoring in accounting cannot take accounting, business, or economics courses on a pass-fail basis.

Because of the many special options and programs available to accounting majors, all students should carefully plan their programs in consultation with their faculty advisor to make sure that they meet graduation requirements and, if applicable, state CPA licensing or graduate program requirements.

A major in accounting must complete 12 courses as outlined below:

Required Courses:

- ECN 101 Principles of Macroeconomics
- ECN 102 Principles of Microeconomics
- ACT 101 Financial Accounting
- ACT 201 Accounting Information Systems
- ACT 224 or 225 Cost/Managerial Accounting
- ACT 226 or 227 Concepts of Federal Taxation
- ACT 320 or 321 Intermediate Accounting I
- ACT 322 or 323 Intermediate Accounting II
- MTH 144 Introduction to Statistical Analysis (preferably) **OR**
- MTH 104 Statistical Methods

Elective Courses (choose three):

- ACT 330 or 331 Advanced Accounting
- ACT 332 or 333 Auditing
- ACT 401 Senior Seminar in Accounting
- ECN 237 or 238 Corporation Finance
- ECN 330 or 331 Monetary Economics
- ECN 332 or 333 Public Finance

ECN 360 or 361 Advanced Topics in Financial Management
BUS 225 Business Law I
BUS 226 Business Law II
BUS 235 or 236 Management
BUS 239 or 240 Marketing

Although there are no prescribed combinations of electives, students should choose electives only after close consultation with their faculty advisor. Electives can and should be enrolled with some specific objective in mind. Certain graduate programs and career paths may require that the student take more than the 12 courses specified above to be adequately prepared to enter the program or profession. Internship opportunities are also available to accounting majors, although they do not count toward the major requirements.

Minor Requirements

A minor in accounting must complete six courses as outlined below:

Required Courses:

ECN 101 Principles of Macroeconomics **OR**
ECN 102 Principles of Microeconomics
ACT 101 Financial Accounting
ACT 201 Accounting Information Systems
ACT 224 or 225 Cost/Managerial Accounting
ACT 320 or 321 Intermediate Accounting I
ACT 322 or 323 Intermediate Accounting II

150 Semester Hour Options

In order to provide flexibility to students, if they choose to meet the standards set by the American Institute of Certified Public Accountants (AICPA) and many state governments for entry into the accounting profession, the accounting major at Muhlenberg can be taken in conjunction with Wescoe School programs or graduate programs offered by other institutions.

Option 1: Accounting Major and a Certificate of 150 Semester Hours of Education – Students graduate with 38 units by completing the accounting major and the bachelor degree requirements AND choosing four *additional* courses **from the accounting major elective choices** and/or the following list:

COM 338 or 339 Organizational Communications
ECN 334 or 335 Trade & Competition in the Global Economy
ECN 350 or 351 Econometrics
ACT 960 Accounting Internship
ACT 970 Accounting Independent Study/Research

BUS 233 or 234 Operations & Information Systems
BUS 331 or 332 Management Science
BUS 333 or 334 Forecasting Models
BUS 341 or 342 Global Marketing
BUS 360 or 361 Organizational Behavior
FRN 310 or 311 Business French
GRM 310 or 311 Business German
SPN 310 or 311 Business Spanish
PHL 245 Business Ethics
PSY 310 Industrial/Organizational Psychology
PSC 221 or 222 Government Regulation of Business
SPC 250 Basic Speech
WSH 960 Washington Semester Internship
Dana Directed Studies as approved by Accounting Coordinator
University of Maastricht courses as approved by Accounting Coordinator
Other courses as approved by Accounting Coordinator

Receiving the 150 Semester Hour certificate from Muhlenberg indicates that a student has met the 150 hour requirements for CPA licensure within the state of Pennsylvania. Each state has its own specific course requirements for the CPA license, so students are encouraged to discuss this with their advisors as early in their accounting major as possible.

Option 2: Accounting Major and Articulation with Another Institution Granting a Graduate Degree – Students enroll four years at Muhlenberg and one year at another institution. Students graduate with a Bachelor of Arts with a major in accounting from Muhlenberg and receive a graduate degree from the other institution. We currently have an articulation agreement with Lehigh University, which has a Master of Science in Accounting and Information Analysis program.

Option 3: Accounting Major – Students complete the accounting major and bachelor degree requirements. At some later time, students have the option of enrolling additional coursework to fulfill the 150 semester hour requirement.

ACCOUNTING COURSES

101. Financial Accounting

The course will provide the student with a fundamental understanding of accounting as a means for decision making by integrating preparation of financial information and written reports for a variety of users with case discussions and oral presentations. Students will participate in financial analysis of a publicly held corporation using an annual report. Further analysis of the industry with interfirm comparisons will be done in teams.

Prerequisite: ECN 101 Principles of Macroeconomics or ECN 102 Principles of Microeconomics

201. Accounting Information Systems

This course will build a broad knowledge of the principles, concepts, and internal controls that support accounting information systems. The identification, collection, processing, analysis, interpretation, and communication of the accounting information needs and requirements of an organization will be examined in relationship to the roles accountants play as designers, users, evaluators and controllers of those systems. Accounting software, the Internet, databases and spreadsheets will be used as vehicles for analysis and problem solving. Integrated into the course will be current issues such as electronic commerce, data security, data warehousing, and enterprise resource planning systems.

Prerequisite: ACT 101 Financial Accounting with a grade of 'C' or better required, 'B' or better recommended.

224, 225. Cost/Managerial Accounting

A study of cost and managerial concepts and their application to the planning and control of manufacturing and service firms. Topics include accounting for the production process (job order costing, process costing, standard costing, ABC costing); performance and productivity measurement (profit planning, variance analysis, responsibility accounting); and revenue and cost analysis for decision making (cost estimation, C-V-P analysis, differential cost analysis).

Prerequisite: ACT 101 Financial Accounting. ACT 320 or 321 Intermediate Accounting I is recommended. Meets general academic requirement W when offered as 225.

226, 227. Concepts of Federal Taxation

An analysis of income tax fundamentals focusing on the development of tax concepts, tax planning, the Internal Revenue Code and rulings and decisions interpreting the code. Topics covered will include tax issues, reporting requirements, required treatments and recent developments in taxation.

*Prerequisite: ACT 101 Financial Accounting
Meets general academic requirement W when offered as 227.*

320, 321. Intermediate Accounting I

Theoretical bases for accounting practices are explored along with a detailed analysis of the financial statements and accounting principles for valuing assets. Topics include the conceptual framework of accounting, balance sheets, income statements, statements of cash flow, current and long-term assets. Students will continue to use computers as a tool for preparation, analysis, and presentation of financial data.

*Prerequisite: ACT 101 Financial Accounting. ACT 201 Accounting Information Systems should also be previously completed or enrolled concurrently.
Meets general academic requirement W when offered as 321.*

322, 323. Intermediate Accounting II

Theoretical bases of accounting practices continue to be explored as students learn valuation and reporting techniques for current and long-term liabilities, stockholders' equity, income taxes, post-employment benefits, and leases. Emphasis is placed on accounting practices for large corporations such as earnings per share and SEC reporting. Four class hours per week.

*Prerequisite: ACT 201 Accounting Information Systems and ACT 320 or 321 Intermediate Accounting I
Meets general academic requirement W when offered as 323.*

330, 331. Advanced Accounting

This course will introduce corporate consolidations and mergers, and show the procedure needed to prepare and present the financial statements of the consolidated entity. Partnership accounting, especially dissolution and liquidation, and accounting for government and non-profit organizations will be covered, as well as international accounting issues.

*Prerequisite: ACT 322 or 323 Intermediate Accounting II
Meets general academic requirement W when offered as 331.*

332, 333. Auditing

Procedures involved in the conduct of external and internal audits and special investigations, as well as the nature, scope and form of opinions offered by professional auditors. Procedures for study and evaluation of internal accounting controls, the application of statistical tools, and legal and ethical issues will also be covered.

Prerequisite: ACT 322 or 323 Intermediate Accounting II

Meets general academic requirement W when offered as 333.

401. Senior Seminar in Accounting

Advanced study of selected topics and an examination of the recent literature in accounting. The student examines numerous readings, presents an evaluation of the readings in the seminar, and prepares a paper on a specific topic. Open to seniors only.

Prerequisite: ACT 322 or 323 Intermediate Accounting II

960. Accounting Internship

Under close faculty supervision, students will be placed in internship positions with local business and other related organizations in order to gain experience in the application of theories and concepts learned in the classroom. Students will be required to document their experiences in a written journal, to share their experiences with others in a classroom setting, and to prepare a significant term paper or project report and oral presentation. Open only to junior and senior majors or minors in good academic standing. Pass-fail only.

AMERICAN STUDIES (AMS)

Director: Associate Professor Mary Lawlor

The discipline of American Studies is aimed at exploring American society and culture(s) from multiple disciplinary perspectives. Students are invited to shape their majors by choosing, based on their interests and strengths, among courses in a variety of fields, for example: history, literature, political science, anthropology, sociology, art, music, theatre, economics, religion, philosophy, communication, and women's studies.

Majors complete eleven courses, including the following core requirements: AMS 101 Introduction to American Studies; ENG 215 American Writers; PSC 101 Introduction to American National Government; HST 100-149 Introduction to History on *American* history; and at least *one* advanced course in American history.

Beyond this core, students take at least five additional courses in areas focusing on American cultural issues in any discipline. These five courses should be spread over at least three different disciplinary areas, and at least four of the five must be numbered 200 or above. If they choose to, students may use these five courses to build concentrations in such areas as, for example, American mass media, the American legal system, gender studies, Native American studies, artistic developments in the United States. In addition, as a capstone experience, students also take a senior seminar, chosen in consultation with the Director of American Studies. The seminar, which students can take in any of the participating academic departments, examines a

particular topic in American culture, society, or history, with readings and research designed to cover a variety of competing and contested viewpoints.

Major-designated writing intensive courses and acceptable seminars or seminar equivalents will be determined in consultation with the faculty advisor.

To remain an American studies major, a student must maintain a 2.000 grade point average in all courses designated as meeting the major requirements.

Major Requirements

Required Courses:

AMS 101 Introduction to American Studies

ENG 215 American Writers

PSC 101 Introduction to American National Government

HST 100-149 Introduction to History (topic with American history focus)

At least one advanced American History course (300 or 400 level).

Senior Seminar or equivalent to be chosen in consultation with faculty advisor

Five additional courses in areas focusing on American Studies in participating departments. These five courses should cover at least three different disciplinary areas and at least four of the five must be numbered 200 or above.

101. Introduction to American Studies

This course will provide an introductory exposure to the study of American culture through the interdisciplinary methods of American Studies. It will examine a particular topic concerning American cultural and social formations from a specific set of disciplinary perspectives that will change from term to term, depending on the instructor's scholarly orientations. Topics for Introduction to American Studies in different semesters would include, for example, "Representations of the American City", "American Cultural Landscapes", "The Romance of Nature in America", "Performing Class in America", "Americans Abroad", "The Veteran in American Film and Literature", and "Immigration in the Twentieth Century". The common methodology will be, first, the focus on American cultural and social formations and, second, the deployment of at least two different disciplinary perspectives that will supplement as well as complement each other in the process of framing critical investigation of the topic. Pluralizing the perspective of study is intended not only to intensify the engagement with the given topic, but to emphasize that identifications of America and of American national culture are contested and changeable. The introductory course will give students the opportunity to become familiar with influential theories in the development of the field that will help prepare them for more advanced course work in American Studies, in addition to offering them the chance to investigate the particular topic at issue. The course will be required for majors in American Studies and open to all students.

Meets general academic requirement H.

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ART (ARH, ARS)

Head of Department: Professor Scott Sherk

Professors: da Costa Nunes, Elliott

Associate Professors: Barnes

Assistant Professor: Emmons

Lecturer: Tuttle

The Department of Art seeks to allow students to explore art, visual creativity, and their history within the liberal arts tradition. Its goals are to provide students with a fundamental understanding of art in a cultural context, to introduce them to the rudiments of visual language, to develop and strengthen their technical skills, and to acquaint them with the challenges facing artists in contemporary society. It is designed to prepare students to meet the entrance requirements of graduate schools and prepare for a life in art.

The major is organized along two sequences: the studio arts and art history. Art history classes include both general historical surveys and in-depth analyses of particular periods. An interdisciplinary perspective characterizes these courses. Studio art classes explore the central problems of direct observation of nature and are designed to develop a personal vocabulary, creative problem-solving, and a sensitivity to the visual world. Studio majors may move among or concentrate on any of the following: painting, drawing, sculpture or photography. ARS 401 Senior Studio Seminar is taught each fall as a culminating studio experience that introduces studio majors to aspects of the professional art world. Senior Honors Seminar is available to highly motivated students.

All art majors are encouraged to participate in activities in the visual arts taking place in the local region, in particular the exhibitions held at the Martin Art Gallery and the Allentown Art Museum, and in nearby New York and Philadelphia. Group excursions are regularly organized to take advantage of the College's ideal geographic proximity to these professional art centers. Student internships are obtained for those who wish to acquire experience in the professional art world.

Honors Program

Selected seniors are invited to enroll in ARS 405 Honors in Studio Art during the spring semester. The culminating event of this experience is an exhibition in the Martin Art Gallery.

Major Requirements

Art majors must take a minimum of nine courses, regardless of which sequence they choose to pursue. All majors are encouraged to take ARH 217 or 218 Modern Art.

All courses enrolled outside the department must be approved for contribution to the major.

Studio Arts Sequence

Every studio major is required to explore a single medium through the third course: ARS 303 Drawing III, ARS 304 Sculpture III, ARS 305 Photography III, ARS 310 Printmaking III, or ARS 320 Painting III.

Studio Major Requirements (9 courses)

ARH 101 Introduction to Art History I

ARH 102 Introduction to Art History II

ARS 103 Drawing I

All three courses should be completed by the end of the sophomore year.

At least two of the following courses:

ARS 104 Sculpture I

ARS 105 Photography I

ARS 110 Printmaking I

ARS 120 Painting I

At least one 300 level studio course

A writing intensive course in the department

Senior Studio Seminar

Studio Minor Requirements (5 courses)

ARH 101 Introduction to Art History I **OR**

ARH 102 Introduction to Art History II

ARS 103 Drawing I

Three additional courses, including at least one 200 level studio course

Art History Sequence

Art majors who pursue the art history sequence must enroll in the two required art history courses as well as seven additional courses. The majority of advanced art history courses are offered on a three year rotating schedule. Art history majors may undertake either an internship in museum or gallery studies or an independent study in research methods or intensive reading.

Art History Major Requirements (9 courses)

ARH 101 Introduction to Art History I

ARH 102 Introduction to Art History II

These two courses should be completed by the end of the sophomore year.

A writing intensive course in the department

7 other courses within the department

Art History Minor Requirements (5 courses)

ARH 101 Introduction to Art History I **OR**

ARH 102 Introduction to Art History II

A writing intensive course in art history

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3 other art courses

HISTORY OF ART (ARH)

101. Introduction to Art History I

A survey of the major works of architecture, painting and sculpture of Western Civilization from the pre-historic period to the Late Middle Ages. Elements of style and the relationship of the work of art to its historical era are stressed. Offered every fall semester.

Meets general academic requirement A.

102. Introduction to Art History II

A survey of the major works of architecture, painting and sculpture of Western civilization from the Renaissance to the modern era. Elements of style and the relationship of the work of art to its historical era are stressed. Offered every spring semester.

Meets general academic requirement A.

103, 104. History of Modern Architecture

A survey of architectural history from the eclectic historicism of the late Victorian period to the present in America and Europe; an analysis of style, materials, and the philosophy underlying the development of modern architecture. Offered every two years.

Meets general academic requirement A (and W which applies to 104 only).

201, 202. Ancient Art

A survey of Aegean, Greek, and Etruscan art. An analysis of stylistic modes and thematic concerns and their relationship to historical and cultural contexts. Offered every three years.

Meets general academic requirement A (and W which applies to 202 only).

203, 204. Medieval Art

A survey of painting, sculpture, and architecture from the Early Christian and Byzantine to the Gothic era; an analysis of stylistic modes and thematic concerns and their relationship to historical and cultural contexts.

Meets general academic requirement A (and W which applies to 204 only).

205, 206. Eighteenth Century Art

A survey of European painting, sculpture, and architecture from 1680 to 1780; an analysis of stylistic modes and thematic concerns and their relation to historical and cultural contexts. Offered every three years.

Meets general academic requirement A (and W which applies to 206 only).

207, 208. Baroque Art

A survey of painting, sculpture and architecture from 1580 to 1680; an analysis of stylistic modes and their relationship to historical and cultural contexts. Offered every three years.

Meets general academic requirement A (and W which applies to 208 only).

209, 210. Nineteenth Century Art

A survey of European painting from 1780 to 1880. Emphasis is placed on the development of Neo-Classicism, Romanticism, Realism, and Impressionism, stylistically and in relation to their cultural and historical contexts. Offered every three years.

Meets general academic requirement A (and W which applies to 210 only).

211, 212. American Art

A survey of painting, sculpture and architecture from pre-Revolutionary times to the early twentieth century. An analysis of style and subject matter, it considers the imagery from cultural, historical, political and social perspectives. Offered every three years.

Meets general academic requirement A (and W which applies to 212 only).

213, 214. Traditional Chinese Art

A survey of painting, sculpture, and architecture of traditional China; an analysis of the stylistic modes and their relationship to historical and cultural contexts. Offered every three years.

Meets general academic requirement A or D (and W which applies to 214 only).

215, 216. British Art

A survey of painting and graphic art from the Renaissance to the modern era. An analysis of style and subject matter, it considers the imagery from cultural, historical, political and social perspectives. Offered every three years.

Meets general academic requirement A (and W which applies to 216 only).

217, 218. Modern Art

A survey of painting and sculpture in Europe and America from 1880 to the present. The evolution of style is examined in context of social, historical, and cultural issues. Offered every two years.

Meets general academic requirement A (and W which applies to 218 only).

219, 220. Traditional Japanese Art

A survey of painting, sculpture, and architecture of traditional Japan; an analysis of the stylistic modes and their relationship to historical and cultural contexts. Offered every three years.

Meets general academic requirement A or D (and W which applies to 220 only).

230, 231. History of Photography

A survey of photography from its invention to the present. It will consider the development of a photographic aesthetic, technical advances, and the relationship between photography and the other visual arts. Offered every two years.

Meets general academic requirement A (and W which applies to 231 only).

301, 302. Italian Renaissance Art

A survey of painting, sculpture and architecture of Italy from about the time of Giotto to the death of Michelangelo; an analysis of stylistic modes and thematic concerns in relation to historical and cultural contexts. Offered every three years.

Meets general academic requirement A (and W which applies to 302 only).

303, 304. Painting in Northern Europe 1400-1570

A survey of painting in the Low Countries, France, Germany, and Austria from its origins in manuscript illumination to the death of Bruegel; an analysis of stylistic modes and thematic concerns in relation to historical and cultural contexts. Offered every three years.

Meets general academic requirement A (and W which applies to 304 only).

305, 306. Museum Studies

Provides a hands-on approach to the practices of curating and preparing exhibitions and the principles of exhibition design; the course will enable a better understanding of the significance of the visual arts in society, the educational role of museums, the physical care and handling of material objects, and the expertise needed to maintain collections and mount exhibitions. Offered every two years.

Prerequisite: ARH 101 Introduction to Art History I and ARH 102 Introduction to Art History II

Meets general academic requirement W when offered as 306.

320-29. Art History Seminar

This is an advanced course devised to accommodate a wide variety of specialized topics. It may examine either the art of an individual nation or culture, or a specific style or theme. It may be interdisciplinary in its focus to explore works of art in a broader cultural and/or historical context. Topics are announced prior to registration. Offered every two to three years.

Prerequisite: declared majors or minors

STUDIO ARTS (ARS)

103. Drawing I

An introduction to problems in visual perception and delineation of pictorial fundamentals incorporating traditional and non-traditional drawing media. Students examine various theoretical perspectives. Work from the still life and the human figure will be emphasized. Four contact hours per week.

Meets general academic requirement A.

104. Sculpture I

An introduction to the development of awareness and control of the basic elements of the three-dimensional language. An emphasis upon the issues surrounding direct observation and the development of a personal vocabulary. Work from the human figure will be emphasized. Four contact hours per week.

Meets general academic requirement A.

105. Photography I

An introduction to the fundamentals of black and white still photography dealing with seeing photographically, operating the camera, processing, and printing. Emphasis is on space, form, and time through the utilization of existing light. The student must provide his or her own 35 mm camera, but it is advisable not to do so before consulting the instructor. Four contact hours per week.

Meets general academic requirement A.

106. Visual Foundations

An introduction to the elements of form and space that underlie all visual art. Using simple materials, design projects explores line, plane, and mass and develops the student's ability to think visually in an abstract way. Strongly suggested for anyone interested in the fields of architecture, graphic design and communication. Four contact hours per week.

Meets general academic requirement A.

110. Printmaking I

An introduction to the basic printmaking techniques of woodcut, linoleum cut, lithography (transfer techniques), monoprinting, collagraph, drypoint, intaglio (engraving), and non-toxic intaglio (etching). Students examine historical approaches and begin to explore personal expressions. Four contact hours per week.

Meets general academic requirement A.

120. Painting I

An introduction to the problems of line, form, color, texture, and space in the painting medium. Varied levels of ability and varied interests are given consideration on an individual basis. Four contact hours per week.

Meets general academic requirement A.

130. Ceramics I

An introduction to the basic techniques of ceramics with an emphasis upon design as an organic outgrowth of the ceramic process. Currently taught on the campus of Cedar Crest College. Four contact hours per week.

Meets general academic requirement A.

203. Drawing II

An introduction to a broad range of compositional problems, subject matter, and life drawing, allowing the exploration of expressive potential of drawing in a variety of media. Four contact hours per week.

Prerequisite: ARS 103 Drawing I or ARS 213 Drawing from Nature

204. Sculpture II

A continued study of three-dimensional art forms with an emphasis on material and techniques within the context of individual projects and investigations. Four contact hours per week.

Prerequisite: ARS 104 Sculpture I

205. Photography II

A continued study of photographic art and darkroom experience that emphasizes the refinement of craft and the development of personal vision. Options include use of large format cameras, flash, and studio lighting techniques. Four contact hours per week.

Prerequisite: ARS 105 Photography I

210. Printmaking II

A continued study of printmaking techniques introduced in Printmaking I, as well as an introduction to photo-intaglio and plate lithography techniques, and alternative processes such as cyanotype and lazertran. Students will develop editioned colored images, learn bookbinding and work on a group portfolio project. Four contact hours per week.

Prerequisite: ARS 110 Printmaking I

213. Drawing from Nature

Referring exclusively to a series of natural objects, including mineral, plant, and animal and human specimens, the course includes a variety of media and aims to develop both analytic and expressive skills of drawing. The course focuses on the studio experience, but includes as well the study of significant historical examples of drawing from nature. Work from natural forms including the human figure will be emphasized. Four contact hours per week.

Meets general academic requirement A.

215. Photography & Digital Media

Starting with photographic images, this course explores computers as a tool to adjust, reform, and fabricate new images. Working with Adobe Photoshop, students learn scanning, image control and alteration, montage techniques, and various output technologies. The history and graphic principles of collage and montage form the intellectual basis for similar work in the digital environment. Four contact hours. Offered every two years.

Prerequisite: ARS 105 Photography I

220. Painting II

A continued experience in oil painting or other media with an emphasis on composition and content. Four contact hours per week.

Prerequisite: ARS 120 Painting I

230. Ceramics II

Continued exploration of the ceramic process and more advanced creative problems. Four contact hours per week. Currently taught on the campus of Cedar Crest College.

Prerequisite: ARS 130 Ceramics I

Meets general academic requirement A.

303. Drawing III

An advanced course in drawing designed to fulfill the need for personalized expression. Four contact hours per week.

Prerequisite: ARS 203 Drawing II

304. Sculpture III

An advanced course focusing on the refinement of concepts, materials and techniques. Emphasis will be placed on individual development. Four contact hours per week.

Prerequisite: ARS 204 Sculpture II

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305. Photography III

An advanced course emphasizing a semester-length project which combines research of precedents with personal exploration of a photographic theme. Both color and black and white materials are utilized. Four contact hours per week.

Prerequisite: ARS 205 Photography II

310. Printmaking III

An advanced course in printmaking techniques. Students will develop editioned colored images which utilize multiple color and plate prints and explore on process as an area of concentration. Four contact hours per week.

Prerequisite: ARS 210 Printmaking II

320. Painting III

An advanced studio course in a variety of media with an emphasis on the development of a personal expression. Four contact hours per week.

Prerequisite: ARS 220 Painting II

401. Senior Studio Seminar

Offered every fall semester, the course is taught collectively by the studio art faculty. Students focus on understanding and articulating their own interests and vision through research, written work, creation of new works of art, and critique. After the final critique, students who have demonstrated strong, sustained, and productive engagement with their work will be invited to join ARS 405 Honors in Studio Art for the spring semester. Required of all senior studio art majors. Open to art minors with permission of faculty.

405. Honors in Studio Art

Offered every spring, this course will require students to continue development of independent work begun during the fall semester. Regular critiques with studio faculty and guest critics will be the basis for evaluation. Emphasis will be on portfolio development and preparation for the senior art exhibition in the Martin Art Gallery. Students will plan and design the exhibition, design announcements, prepare their work for hanging, and install and light the exhibit.

Prerequisite: ARS 401 Senior Studio Seminar. Departmental permission required.

ASIAN TRADITIONS (Minor only)

Director: Associate Professor Susan L. Schwartz

Co-Directors: Professor Thomas Cartelli, Associate Professor Robert Croskey, Assistant Professor Julia M. Hardy, Professor Christopher Herrick, Professor Albert Kipa

The Asian Traditions minor offers students the opportunity to explore the rich cultural and religious heritage of South and East Asia and its influence on contemporary affairs. Asian countries play an increasingly important role in global concerns, and it is crucial to forge connections with as much expertise and understanding as possible. The information and understanding gained through this course of study will benefit students in whatever field or endeavor they choose to pursue.

Students must choose five courses from at least three different departments and must complete a Senior Capstone Project. The former may be chosen from special topics courses as approved by the director and from among the regular College offerings

listed below. Students are also encouraged to supplement regular course offerings with language study offered on LVAIC campuses and study abroad opportunities.

Art History courses

ARH 213 or 214 Traditional Chinese Art
ARH 282 Hindu Art

Religion courses

REL 112 Topics in Religion: Expressions of the Way, The Poetry of Tao
REL 203 Religions of India
REL 206 Religion & Performing Arts in India
REL 207 Religions of China
REL 208 Religions of Japan
REL 225 Buddhism From East to West
REL 351 Topics in Gender and Religion: The Feminine in South Asia

English course

ENG 375 or 376 Postcolonial Literature

History courses

HST 150 Introduction to Traditional Japan
HST 271 or 272 Modern China
HST 273 or 274 Modern Japan
HST 391 or 392 The Mongol Legacy

Philosophy courses

PHL 104 Philosophy East & West
PHL 284 Asian Philosophies

Political Science course

PSC 232, 233 Governments of East Asia

Sociology course

SOC 325 Imagined Communities: The Sociology of Nations and States

Additional courses

AST 950 Senior Capstone Project in Asian Traditions
Each student will complete a Senior Capstone Project, designed in consultation with the director, which will conclude with a presentation open to other minor program participants.
AST 970 Asian Traditions Independent Study/Research

BIOCHEMISTRY

Co-Directors: Colabroy and Hark

Professor: Shive

Associate Professors: Anderson, Baar, Ingersoll, Wightman

Assistant Professors: Edwards, Teissere

A major in biochemistry gives students the essential background and skills necessary to understand and contribute to the study of chemistry of living systems. Students who complete the program will have a sound foundation—prepared for positions in industry and for admission to graduate schools in biochemistry, molecular biology, genetics, microbiology, and other biochemically oriented disciplines. Some students preparing for admission to medical schools choose the biochemistry major.

To remain a major in biochemistry, a student must maintain at least a 2.000 grade point average for all biology and chemistry courses attempted.

Major Requirements

Required Courses:

- BIO 152 Principles of Biology III: Molecules & Cells (by permission of instructor)
- BIO 220 Biochemistry (by permission of instructor)
- CHM 103 General Chemistry I
- CHM 104 General Chemistry II
- CHM 203 or 205 Honors Organic Chemistry I **OR**
- CHM 201 Organic Chemistry I
- CHM 204 or 206 Honors Organic Chemistry II **OR**
- CHM 202 Organic Chemistry II
- CHM 311 Analytical Chemistry I
- CHM 321 Physical Chemistry I
- CHM 322 Physical Chemistry II
- CHM 453 Advanced Biochemistry I: Lecture
- CHM 454 Advanced Biochemistry II: Laboratory
- MTH 121 Calculus I
- MTH 122 Calculus II
- PHY 211 General Physics I
- PHY 212 General Physics II

Recommended Course:

- BIO 412 Molecular Biology

BIOLOGY (BIO)

Head of Department: Associate Professor Richard Niesenbaum

Professors: Klem, Much

Associate Professor: McCain, Wightman

Assistant Professors: Hark, Edwards, Iyengar, Meier, Teissère

Lecturers: Byrne, Cronin, Stamper, Tsao

Post-Doctoral Researcher: Katz

The biology curriculum is designed to provide students an opportunity to study the principles governing life processes within the broader context of the liberal arts. Students investigate the science of life at all levels, from molecular biology to population ecology. Courses are designed to develop each student's ability to acquire and interpret data, pose questions, and critically evaluate facts and theories. By proper selection of biology and other science courses, students will be prepared for graduate school in the life sciences, for admission to medical, dental, veterinary, and other health profession schools, and for positions in government or industry.

Major Requirements

To declare and be retained as a biology major, a student must maintain a 2.000 grade point average based on all biology courses attempted. No courses numbered below 202 except BIO 150 Principles of Biology I: Organisms & Populations, BIO 151 Principles of Biology II: Cells & Organisms, and BIO 152 Principles of Biology III: Molecules & Cells can be used to fulfill the biology major requirements. In many biology courses a student is expected to devote more time than scheduled in laboratory and field investigations.

Required Courses:

Biology majors must complete 14 courses, nine in biology and five cognate courses.

1. Biology courses

- (a) Three introductory courses: BIO 150 Principles of Biology I: Organisms & Populations, BIO 151 Principles of Biology II: Cells & Organisms, and BIO 152 Principles of Biology III: Molecules & Cells, which must be completed before the end of the third year.
- (b) Six biology electives numbered 200 or above (except BIO 200 Human Anatomy & Physiology I, BIO 201 Human Anatomy & Physiology II, and BIO 960 Biology Internship). At least one course must be from each of three areas of biological organization:

Area 1 – Molecules and Cells. These courses explore structural and functional relationships from the molecular to cellular level of organization: BIO 205 Cell Biology I, BIO 215 Genetics, BIO 220 Biochemistry, and BIO 225 Microbiology.

Area 2 – Cells and Organisms. These courses explore structural and functional relationships from the cellular to organism level of

organization: BIO 240 Developmental Biology, BIO 242 Entomology, BIO 245 Comparative Anatomy, BIO 248 Neurobiology, and BIO 250 General Physiology.

Area 3 – Organisms and Populations. These courses explore the interactions of individuals and populations with their physical and biological environments: BIO 204 Marine Invertebrate Zoology, BIO 255 Ornithology, BIO 260 Field Botany & Plant Ecology, BIO 262 Cultural & Economic Botany, BIO 265 Ethology, BIO 270 Ecology, BIO 272 Field Marine Biology and BIO 275-279 Field Investigations in Biology.

- (c) One of the six elective courses must be numbered between 400 and 499. This is an advanced, seminar style course that incorporates inquiry-oriented student projects.

2. Cognate courses

MTH 121 Calculus I
CHM 103 General Chemistry I
CHM 104 General Chemistry II
CHM 201 Organic Chemistry I
PHY 211 General Physics I

Students are strongly encouraged to complete CHM 202 Organic Chemistry II and PHY 212 General Physics II because a full year of each are required by virtually all graduate programs in the biological sciences or health professions.

Teacher Certification

Students seeking certification for the teaching of biology in the secondary schools should contact the department head.

Honors Program

A student may complete departmental honors by conducting research with a faculty mentor for two semesters during the senior year or the summer prior to the senior year. Acceptance into the honors program is selective and based on the following criteria:

- 1) A minimum GPA of 3.500 in biology courses,
- 2) Approval of a research proposal submitted to a faculty member in the spring of the junior year. The student should consult with the faculty member to develop the proposal. The proposal must be approved by the Honors Committee.
- 3) Availability of research positions with a particular faculty member.

Acceptance into the honors program does not mean honors necessarily will be awarded. Department honors will be granted at commencement to majors who have fulfilled the following conditions:

- 1) The candidate has met the expectations of two course units of research during the senior year or the summer prior to the senior year. These expectations will be clearly established by the faculty mentor.
- 2) The candidate has actively participated in the Department of Biology seminar program.
- 3) Submission and acceptance of a senior thesis based on the year's research. The Honors Committee will judge the candidate's thesis based both on the scientific merit of the work and quality of writing. The Honors Committee will determine the degree of honors to be awarded (none, honors, high honors, or highest honors).

Detailed information on the Honors Program is available in the biology office.

100-149. Concepts of Biology

Concepts of Biology is a collection of courses that vary in topic but are similarly designed to introduce students to the scientific way of knowing. They are designed for students who do not intend to pursue a career in the biological sciences or related field. The courses are not usually open to students who have completed BIO 150 Principles of Biology I: Organisms & Populations, BIO 151 Principles of Biology II: Cells & Organisms, or BIO 152 Principles of Biology III: Molecules & Cells.

101. Human Biology, Science & Society

This course covers topics in human structure and function, human genetics, and human ecology. A scientific and bio-ethical approach is used to study issues related to society as a whole as well as to an individual. The overall goal of the course is to help students become more scientifically literate so that they can make informed decisions.

Meets general academic requirement S.

102. Biology of Movement

Students study the science of movement. The structure and function of the skeletal and muscular systems will be studied in detail. The nervous, respiratory and cardiovascular systems will also be studied. In addition, students will explore the biomechanics of movement. The course is especially designed for dance majors and others who have a particular interest in the biology of movement.

Meets general academic requirement S.

104. Biology of Birds

A general overview of the study of avian natural history. Special attention is given to field techniques to identify, describe, and record the biology of birds in their natural habitat. Four class hours per week and field trips.

Meets general academic requirement S.

105. Concepts of Biology in Practice

A course designed to facilitate learning of biological concepts through laboratory experiences. Critical scientific thinking and science process will be emphasized.

Meets general academic requirement S.

109. Bubonic Plague to AIDS: The Influence of Infectious Disease on the Human Species & Environment

Infectious disease has and continues to have a profound influence on humans and the environment in which they live. Bubonic plague, smallpox, syphilis, malaria, and AIDS, as well as other emerging viruses, will be studied as specific examples of infectious disease. The biology of the microbes

involved; their epidemiology, resulting pathology and control will be discussed. Emphasis will be placed on the historical, political and social consequences of infectious disease. **Offered as a course designed for Muhlenberg Scholars.**

Meets general academic requirement S.

112. Biodiversity

A survey of the diversity of life and its evolution, extinction, and conservation. Readings, lectures and discussions will cover such issues as ethics of conservation, multiple-use forestry practices and ecological restoration. This course is intended for students who are not interested in pursuing careers in the Biological Sciences and related disciplines but who have a strong interest in conservation and the natural world. Three class hours plus three laboratory hours per week, includes some field trips.

Meets general academic requirement S.

113. Marine Organisms & the Ocean

As a basis for understanding marine organisms and their lifestyle, this course will study the geological origins of oceans and plate tectonics, the nature of seawater, ocean bottom sediments, the atmosphere and its relationship with the oceans, waves, tides, and currents. Studies will include marine ecosystems, open ocean plankton and nekton, and organisms of the ocean bottom. The effects of human activities on ocean life will also be discussed. Course can be used to satisfy the earth science requirement for secondary education.

Meets general academic requirement S.

114. Concepts of Biology: Humanity and the Biological World

The primary focus of this course is to examine the origin and nature of the life forms that exist today and the effect of human activity on those organisms. As a background for understanding those changes, the role of the environment and genetics in the evolution of living species will be studied. Review of biological, geological, and meteorological concepts will support the study.

Meets general academic requirement S.

116. Concepts of Biology: Animal Behavior

Why do the cardinals on campus perch at the tops of trees and chirp so loudly? Why do earthworms emerge from the ground when it rains? Why do some killer whales hunt in packs and others hunt singly? This course is designed for students who want to better understand the mechanisms, evolution, and consequences of animal (including human) behavior. Topics such as communication, foraging, orientation, reproduction, and social behavior will be covered. In addition to gaining insight into animal behavior, you will also obtain a broader understanding of science, the scientific method, and some of the unanswered questions in the study of animal behavior. The lectures of this class will be supplemented by hands-on experiments, live animal observations, and film clips to gain a deeper understanding for animal behavior and the scientific method. There will be one required weekend field trip during the class, but students will have a few choices among which to choose. Four class hours per week.

Meets general academic requirement S.

118. Concepts of Biology: Genes, Genomes, and Society

Students will consider the impact of genetic information on both individuals and various aspects of society, with a particular focus on human health and disease. The course begins with an introduction to human genetics, which will serve as background for discussion of aspects of the human condition that have a genetic basis as well as uses of genome sequence information. In addition to learning the underlying biology, discussions will include related societal, ethical, and policy topics.

Meets general academic requirement S.

150. Principles of Biology I: Organisms & Populations

The first course in the introductory biology sequence for intended majors and for those interested in a more substantial introduction to Biology is an introduction to the core themes of biology emphasizing the

scientific method, evolution, the diversity of life, and how organisms interact with their environment. Three class hours per week, and biweekly recitations.

Meets general academic requirement S.

151. Principles of Biology II: Cells & Organisms

The second course in the introductory biology sequence for majors is a study of the relationship of structure and function in plants and animals. Laboratories emphasize the scientific method as a way of knowing. Three class hours and three laboratory hours per week.

Prerequisite: BIO 150 Principles of Biology I: Organisms & Populations

Meets general academic requirement S.

152. Principles of Biology III: Molecules & Cells

The third course in the introductory biology sequence is a study of the relationship of structure and function at the molecular and cellular level, molecular and Mendelian genetics, and microbiology. Three class hours and three laboratory hours per week.

Prerequisite: BIO 151 Principles of Biology II: Cells & Organisms and CHM 104 General Chemistry II

Meets general academic requirement S.

200. Human Anatomy & Physiology I

This course is intended for students interested in Allied Health Professions. The course provides an in-depth study of the basic body tissues, the principles of support and movement, the nervous and endocrine system of the human body. Three class hours plus three laboratory hours per week. **Does not count as one of the nine biology courses required for the biology major.**

Prerequisite: BIO 151 Principles of Biology II: Cells & Organisms

Meets general academic requirement S.

201. Human Anatomy & Physiology II

This course is a continuation of BIO 200 Human Anatomy & Physiology I and is intended for students interested in Allied Health Professions. The course exposes the student to basic body processes such as digestion, respiration, transport, reproduction, immunology, fluid dynamics and the hormonal control of physiology. There is an emphasis on the interrelationship of body processes and the maintenance of homeostasis. Three class hours plus three laboratory hours per week. **Does not count as one of the nine biology courses required for the biology major.**

Prerequisite: BIO 200 Human Anatomy & Physiology I

Meets general academic requirement S.

204. Marine Invertebrate Zoology

Study of the diversity of animal phyla, emphasizing similarities and differences among groups, adaptations to their respective environments, and potential evolutionary pathways for various organ systems. Laboratories emphasize structure and function of invertebrate anatomy through observation and dissection of living and preserved specimens. A required weekend trip to an aquarium or the ocean should be anticipated. Three hours of lecture plus three hours of laboratory per week.

Prerequisites: Biology 151 Principles of Biology II: Cells and Organisms.

205. Cell Biology I

The structure and function of eukaryotic cells will be explored at the molecular and cellular levels. Topics include cell signaling, membranes, organelles, cell cycle control, motility and programmed cell death. Primary literature is analyzed in recitation sections. Laboratory provides experience in methods of subcellular fractionation, cytology and cell culture. Self-designed investigations test hypotheses using fluorescent microscopy. Three lecture hours, one hour of recitation, and three laboratory hours per week.

Prerequisite: BIO 152 Principles of Biology III: Molecules & Cells

215. Genetics

Study of genetic analysis in the four main branches of genetics: classical genetics, molecular genetics, population genetics, and genomics. Experimental approaches, human genetics, and model systems are emphasized. Topics include mutations, gene interactions, chromosomes, quantitative and evolutionary

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genetics, gene mapping, gene cloning, and genetic engineering. Three class hours and three laboratory hours per week.

Prerequisite: BIO 152 Principles of Biology III: Molecules & Cells

220. Biochemistry

Study of organisms, cells, and cellular components at chemical and molecular levels. Structure and function of nucleic acids and proteins, including introduction to enzyme kinetics will be covered. Discussion of carbohydrates, lipids, aspects of metabolism and signal transduction, and applications to human health and disease will also be included. Three class hours and three laboratory hours per week.

Prerequisite: BIO 152 Principles of Biology III: Molecules & Cells and CHM 104 General Chemistry II. CHM 201 Organic Chemistry I or CHM 203, 205: Honors Organic Chemistry I should also be previously completed or enrolled concurrently.

225. Microbiology

Study of the morphology, physiology, and genetics of bacteria as well as the structure and replication of viruses. Relationship of these microbes to human disease is emphasized. Laboratories stress aseptic technique, microscopic observation, bacterial physiology and identification. Three class hours plus three laboratory hours per week.

Prerequisite: BIO 152 Principles of Biology III: Molecules & Cells

240. Developmental Biology

An overview of the cellular, molecular, and developmental mechanisms that control embryogenesis from fertilization through organogenesis. Laboratories include the study of live embryos from sea urchins to chickens, as well as preserved embryo slides. Three class hours plus three laboratory hours per week.

Prerequisite: BIO 152 Principles of Biology III: Molecules & Cells

242. Entomology

A comprehensive study of the insects. Insect physiology, biochemistry and molecular biology are integrated with an exploration of insect diversity, ecology, evolution and the impact of insects on humans. Labs develop insect identification skills and provide experience in a variety of biochemical and molecular techniques as they are applied to current research in insect science. Three lecture hours plus three laboratory hours per week.

Prerequisite: BIO 152 Principles of Biology III: Molecules & Cells

245. Comparative Anatomy

Study of the evolution and morphology of vertebrates. Emphasis is given to the comparative study of vertebrate homology and the adaptive value of structure. Laboratories consist of detailed dissection of representative taxa with emphasis on shark, cat and human anatomy. Three class hours plus three laboratory hours per week.

Prerequisite: BIO 151 Principles of Biology II: Cells & Organisms

248. Neurobiology

This course addresses the mechanisms of human and animal behavior through a study of nervous system anatomy and function. Topics include neurophysiology, ion channel structure and function, synaptic transmission, nervous system development, and behavioral systems. Regular discussions will focus on primary and secondary scientific literature. Three hours of lecture/discussion and three hours of laboratory per week.

Prerequisite: BIO 152 Principles of Biology III: Molecules & Cells and CHM 104 General Chemistry II

250. General Physiology

Study of the concepts and principles that form the basis for understanding the mechanisms of animal physiology. The emphasis of the course is on the interrelationship of physiological processes and how they relate to the biological needs of mammals. Three class hours, three laboratory hours and one recitation hour per week.

Prerequisite: BIO 151 Principles of Biology II: Cells & Organisms

255. Ornithology

A detailed and in-depth study of avian natural history. Emphasis is given to population ecology, behavioral ecology, and conservation biology of birds. Laboratories are exercises and field trips to develop and practice techniques to identify, describe, and record the biology of birds in their natural habitat. Three lecture hours plus three laboratory hours per week.

Prerequisite: BIO 151 Principles of Biology II: Cells & Organisms

260. Field Botany & Plant Ecology

A field research oriented course emphasizing plants. The focus is on articulating and quantitatively answering relevant research questions on the diversity, ecology, and evolution of plants. Special emphasis is given to hypothesis development, data collection and analysis, and interpretation and presentation of results. Three class hours plus three laboratory hours per week with extensive field work.

Prerequisite: BIO 151 Principles of Biology II: Cells & Organisms

Meets general academic requirement W.

262. Cultural & Economic Botany

Study of the ecological relationship between plants and humans, and the implications for local and global conservation. Topics covered include medicinal plant use, agroecology, plant ecology, tropical ecology, and community-based conservation. Three lecture hours plus three laboratory/field hours per week.

Prerequisite: BIO 151 Principles of Biology II: Cells & Organisms

265. Ethology

The biological study of behavior. Emphasis is given to the comparative study of genetics, morphology and physiology, ecology, and evolution of animal behavior. Laboratories are exercises or field trips to observe, describe, and interpret the actions of animals in their natural habitat; special emphasis is given to hypothesis development and study design, and the collection, analysis, interpretation, and presentation of research results. Three class hours plus three laboratory hours per week.

Prerequisite: BIO 151 Principles of Biology II: Cells & Organisms

Meets general academic requirement W.

270. Ecology

Study of the interactions of plants and animals with their non-living environment and with each other. Topics include ecosystem interactions, population and community ecology. Extensive field work and weekend field trips. Three class hours plus three laboratory hours per week.

Prerequisite: BIO 151 Principles of Biology II: Cells & Organisms

272. Field Marine Biology

This field course is conducted at a marine laboratory field station and takes advantage of the opportunity to study the diversity of marine organisms, microhabitats, and their interactions in the natural setting. Topics investigated through fieldwork, laboratory investigation, and lectures include organismal diversity, adaptations, zonation, competition, life history strategies and larval ecology. Students gain experience in experimental design, which culminates in a small self-designed project. The course is conducted over 10-12 days, usually in August and rarely in May, with paper writing and a final exam administered on campus in the fall. There is a supplementary fee to cover the cost of housing and laboratory fees.

Prerequisite: BIO 151 Principles of Biology II: Cells & Organisms or permission of the instructor.

275-279. Field Investigations in Biology

Field investigations focusing on a particular site or theme in Ecology. Examples include Marine Ecology in Bermuda and Tropical Ecology in Peru, Guatemala, and Costa Rica. May be taken for one-half course units or one course unit. May be enrolled more than once.

Prerequisite: BIO 151 Principles of Biology II: Cells & Organisms

326. Medical Microbiology

Study of the host-microbe relationship as it relates to human disease. Concepts covered include: pathogenesis, chemotherapy, epidemiology, and clinical diagnosis. The laboratories stress the identification

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of clinical unknowns. Three lecture hours plus three laboratory hours per week.

Prerequisite: BIO 225 Microbiology

335. Immunology

Study of the immune system and its role in maintaining the physiological integrity of multicellular organisms against infection, malignancy, and transplantation. Specifically, the following concepts are studied: structure and function of antibodies and antigens, biology of lymphocytes and their interaction, immunoregulation and immunopathology. Three class hours plus two recitation hours per week.

Prerequisite: BIO 152 Principles of Biology III: Molecules & Cells and any 200 course in area 1

Meets general academic requirement W.

350. Applied Physiology

Advanced topics in physiology, including cardiovascular biology, respiratory biology, neurobiology, immunology, and endocrinology, will be studied. Students will apply and extend their understanding of basic and clinical physiology to the analysis of case studies presented to the class by health professionals. Emphasizes skills in problem solving, writing, and oral presentation.

Prerequisite: BIO 250 General Physiology

Meets general academic requirement W.

360. Histology

Study of the microscopic anatomy of vertebrate tissues and organs, with a detailed consideration of the relation of structure to function. Three class hours plus three laboratory hours per week.

Prerequisite: BIO 205 Cell Biology I or BIO 245 Comparative Anatomy or BIO 250 General Physiology

405. Cell Biology II: Cell Biology of Human Diseases

The cell biology of human diseases will be investigated using current primary literature, emphasizing experimental methods and the interpretation of data. Topics will include cancer, heart disease, diabetes, Alzheimer's disease, muscular dystrophy and other human health concerns that have been the topic of recent research at the cellular level. Students will critically analyze current controversies in the cell biology literature.

Prerequisite: BIO 205 Cell Biology I or consent of instructor

Meets general academic requirement W.

412. Molecular Biology

A topical course investigating the techniques and applications of recombinant DNA. This course provides a detailed treatment of recombinant methodologies such as gene cloning strategies, and considers the process of scientific research. Topics covered include gene regulation, gene organization, and the molecular aspects of development and cell biology. Discussions and writing assignments focus on the analysis of the primary literature. Three class hours per week.

Prerequisite: BIO 151 Principles of Biology II: Cells & Organisms and BIO 205 Cell Biology I or BIO 215 Genetics or BIO 220 Biochemistry or BIO 225 Microbiology

Meets general academic requirement W.

421. Transmission Electron Microscopy

Students learn how to prepare specimens for transmission electron microscopy; instruction includes fixation procedures, thin sectioning, staining, and operation of the microscope. Students design and complete an independent research project, analyze and discuss scientific literature, and learn how to write a scientific paper. Three class hours plus three laboratory hours per week.

Prerequisite: BIO 152 Principles of Biology III: Molecules & Cells, and any two biology courses numbered between 200 and 299. PHY 211 General Physics I and CHM 201 Organic Chemistry I or CHM 203 or 205 Honors Organic Chemistry I should also be previously completed or concurrently enrolled.

Meets general academic requirement W.

423. Scanning Electron Microscopy

Students learn how to prepare specimens for scanning electron microscopy; instruction includes fixation procedures, critical point drying, sputter coating and operation of the microscope. Students design and

complete an independent research project, analyze and discuss scientific literature, and learn how to write a scientific paper. Three class hours plus three laboratory hours per week.

Prerequisite: BIO 152 Principles of Biology III: Molecules & Cells, and any two biology courses numbered between 200 and 299. PHY 211 General Physics I and CHM 201 Organic Chemistry I or CHM 203 or 205 Honors Organic Chemistry I should also be previously completed or concurrently enrolled.

Meets general academic requirement W.

448. Advanced Topics in Neuroscience (Cross-listed with NSC 448)

This course serves as a graduate-style seminar for the senior neuroscience major and will stress reading and discussion of primary texts and timely issues within the field. Topics discussed may include: synaptic mechanisms in memory and learning, analysis of simple neuronal circuits, cortical architecture, neuroendocrinology, the neural basis of sleep and dreaming, pain mechanisms and integration, neurogenetics, and/or the relationship of neuronal physiology and behavior.

Prerequisites: NSC 101 Mind and Brain, NSC 208 Biological Psychology, and NSC 248 Neurobiology

460. Physiological and Behavioral Ecology

A seminar course investigating the physiological adaptations of vertebrates to their environment. Readings are from the primary literature. Students design and complete an independent research project and learn how to write a scientific paper. Three class hours plus three laboratory hours per week.

Prerequisite: Any two biology courses numbered between 200 and 299

Meets general academic requirement W.

465. Conservation Biology

This course will draw on the various disciplines within biology as they are applied in the very rapidly changing field of conservation biology. Topics will include conservation genetics, geographical information systems (GIS), sustainable agriculture and forestry, integrated land-use management, and restoration ecology. This project-based seminar course includes three class hours and three lab/field hours per week. The course will be offered in alternate years, depending on student demand.

Prerequisite: Any two biology courses numbered between 200 and 299

470. Evolution

Study of the processes of evolution from macromolecules to the genesis of major groups of life. Examination of Neo-Darwinian theories of adaptation and natural selection as well as competing explanations of evolutionary change. Assessment of contemporary criticism of Darwinian theory. Three class hours per week in seminar format with emphasis on reading of primary literature and discussion.

Prerequisite: Any two biology courses numbered between 200 and 299

Meets general academic requirement W.

960. Biology Internship

Majors are eligible for internship programs with approval of the department head. Internships do not count as one of the nine biology courses required for the biology major.

970. Biology Independent Study/Research

Open to qualified students. A proposal for independent study is developed by the students in consultation with a faculty sponsor. The department head must approve the proposal. May be taken for 0.5 course units or one course unit. May be enrolled more than once. However, only one independent study/research course can be counted as one of the nine biology courses required for the biology major.

BUSINESS ADMINISTRATION (BUS)

Head of Department: Professor Arthur Raymond

Professors: Frary, Heitmann

Professor and Business Coordinator: Miller

Associate Professor: Norling

Assistant Professor: Bergenstock

Lecturer and Internship Director: Eisenberg

Entrepreneur in Residence: Linder

The business program at Muhlenberg is nurtured by the liberal arts tradition of the institution, and provides students with an excellent preparation for both career and graduate school. Business majors have successfully launched their careers in a wide range of fields and activities, including the manufacturing, telecommunications, electronics, healthcare, and financial services industries. Some students combine a business major with accounting, and have been especially successful in finding positions with “Big Four” accounting firms. Business is often the major of choice for students who wish to apply for law school. Many students, regardless of major, will eventually pursue an MBA degree. A business major, obviously enough, provides an excellent foundation for MBA studies.

The business program offered at Muhlenberg is especially appropriate for liberal arts students who want to understand more fully the international society in which we live, and its aspirations. It emphasizes critical thinking, effective communication, and collaborative effort. The international, environmental, and ethical dimensions of business decisions are interwoven throughout the business curriculum, and there is a deep faculty commitment to instilling a love of learning and an appreciation of learning as a lifetime activity.

The business program offers students six areas of concentration and an education abroad alternative that build upon a commonly shared combination of **foundation and core** courses. **Concentrations** are available in the following areas: (1) Entrepreneurial Studies; (2) Human Resources Administration; (3) Management and Organization Studies; (4) Management Science and Information Systems; (5) Managerial Finance; and, (6) Marketing. Participation in a department approved education abroad program may be substituted for, or used to complement, a concentration in meeting the requirements of the business major. Students majoring/minoring in business cannot take accounting, business or economics courses on a pass-fail basis.

International Business and Education Abroad

For students with international business interests, the Maastricht education abroad program is especially attractive. The program was developed in cooperation with the University of Maastricht in The Netherlands and is fully integrated with the business major. Courses are offered by University of Maastricht faculty to participating Muhlenberg students during the fall semester of their junior year. Students attend

courses in international business, economics, and politics, taught in English. Besides deepening global and cultural awareness, students have opportunities to travel to France, Belgium, and Germany, all of which are less than thirty minutes away, and meet business and political leaders from those countries. The program offers a global perspective and international experience that students will find advantageous in both finding a first job and in subsequent career advancement.

Other department approved education abroad programs are also available for the student with international business interests.

Students who wish to participate in the Maastricht program or any other department approved education abroad opportunity should consult with their faculty advisor as soon as such an interest is evidenced.

Areas of Concentration

Business majors receive a Bachelor of Arts degree with a major in Business Administration. All majors are required to select a concentration, or alternatively, participate in a department approved education abroad program.

Management and organization, some would claim, are what distinguish today's world from earlier times. Certainly, an appreciative knowledge of organizations, their structure and functions, and how they are managed, is essential to an understanding of the world in which we live. The concentration in management and organization offers courses in organizational behavior and theory, management strategy and policy, and leadership. It provides an excellent foundation for those who aspire to positions of high responsibility in business or government.

The entrepreneurial studies concentration is designed for students who want to establish their own business or who expect to assume responsibilities for a family business. Additionally, an entrepreneurial studies minor provides a valuable background for students in, for example, the healthcare or performing arts fields who will often find themselves involved in the management of a small business.

A managerial finance concentration provides excellent preparation for students who are interested in career opportunities with financial institutions or on Wall Street. The concentration explores such topics as portfolio theory, the capital asset pricing model, ratio analysis, capital budgeting and structure, and offers specialized courses in multinational finance, mergers and acquisitions, and derivative markets. A business major with a concentration in managerial finance cannot at the same time double major in Economics with a concentration in finance.

Students with quantitative and computer skills and interests will find the management science and information systems concentration appealing. The concentration emphasizes operations management, information systems including electronic commerce and the internet, and the development and use of optimization and

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forecasting models. This concentration provides an especially strong background for graduate work in finance or management science, or for pursuing a consulting career path.

Human resources administration is concerned with the management of what many would call an organization's most important resource, its people. This concentration offers an interdisciplinary approach to the legal, procedural, behavioral and strategic management aspects of human resources administration, and provides students with career opportunities in both the profit and not-for-profit sectors.

Marketing is a philosophy that guides the entire business organization. Its goal is to create customer satisfaction profitably by building value-laden relationships with customers. The marketing department cannot accomplish this by itself and must therefore team-up with other departments in the company and create partnerships with other organizations worldwide to deliver exceptional value to all customer groups. To prepare students for this challenge, Muhlenberg's marketing concentration offers an interdisciplinary and global perspective, along with the opportunity to develop research techniques to assist firms with pricing, product, distribution, and promotion decisions.

Internship Opportunities

The department has an extensive internship program that provides the business major with a wide range of opportunities to gain valuable work experience. Supervised paid and unpaid internships, which can contribute to the degree, are available during the traditional school year. In addition, the department offers assistance in obtaining summer internships that may also contribute to the degree at Muhlenberg.

Honors Program in Business Administration

An honors program is available on an application basis to students who have completed the business core and have attained a grade point average of 3.500 or higher both in the major program and overall. Interested students should discuss the requirements and rewards of the honors program with their faculty advisor before the end of their junior year.

The honors program requires the completion of a senior honors thesis (1 course unit) and encourages independent studies.

Writing and Speaking Skills

All students are encouraged to enhance their communications skills, both written and oral. Two writing intensive (W) courses are required (in addition to the First-Year Seminar). At least one of these must be a course designated by the major. Faculty advisors will offer suggestions about specific coursework or other activities.

Major Requirements

In order to declare and remain a major in good standing in business administration, a student must achieve and maintain a cumulative grade point average of at least 2.000 in all courses applicable to the major. Once enrolled at Muhlenberg College, students must meet the major requirements by enrolling Muhlenberg courses (i.e., transfer courses are not acceptable).

A major in Business Administration must complete 12 courses, which consist of the following three components:

I. Foundations (4 courses) *

Foundation courses will ordinarily be completed during the first two years.

The following courses are required:

- ECN 101 Principles of Macroeconomics
- ECN 102 Principles of Microeconomics
- ACT 101 Financial Accounting
- MTH 144 Introduction to Statistical Analysis (preferably) **OR**
- MTH 104 Statistical Methods

II. Core (4 courses) *

Business Administration majors are expected to complete all four foundation courses before enrolling in any core courses. Students are encouraged to take BUS 235 or 236 Management and BUS 239 or 240 Marketing as a pair of related courses, i.e., during the same semester. ECN 237 or 238 Corporation Finance and BUS 233 or 234 Operations & Information Systems should also be taken as a pair of related courses, i.e., during the same semester. Typically, the four core courses are taken during two consecutive semesters. Students will usually not enroll in any core courses before the spring semester of the sophomore year.

The following courses are required:

- ECN 237 or 238 Corporation Finance
- BUS 233 or 234 Operations & Information Systems
- BUS 235 or 236 Management
- BUS 239 or 240 Marketing

* These courses must be taken at Muhlenberg College.

III. Concentration (4 courses)

Business Administration majors are expected to have completed all four core courses before enrolling in any concentration courses or department approved education abroad program. Ordinarily, concentration courses will be enrolled during the junior and senior years. Participation in a department approved education abroad program is ordinarily done during the junior year.

Maastricht Education Abroad Program (International Business)

The Maastricht education abroad program is specifically designed for department majors who wish to gain an international business perspective. The Maastricht program offers four courses in business and economics that can be used to satisfy the concentration requirement. Students participating in the Maastricht program are encouraged to take additional concentration area courses. The following Maastricht program courses are always available to participating students:

- MEA 261 European Economic Integration
- MEA 265 International Management & Business Policy
- MEA 267 Global Marketing Strategy

Entrepreneurial Studies

Students must complete the following courses:

- BUS 351 Entrepreneurial Studies
- BUS 352 Small Business Management
- BUS 433 or 434 Entrepreneurship Policy & Strategy
- BUS 965 Entrepreneurial Practicum

Human Resources Administration

Students must complete the following courses:

- BUS 335 or 336 Labor/Management Relations
- BUS 360 or 361 Organizational Behavior **OR**
- PSY 310 Industrial/Organizational Psychology
- BUS 339 or 340 Human Resources Administration

In addition, students must choose one course from the following:

- ECN 247 or 248 Economics of Men & Women at Work
- BUS 450 Senior Seminar in Human Resources Administration

Management and Organization Studies

Students must complete the following course:

- BUS 444 or 445 Management Policy & Strategy (second semester senior year)

In addition, students must choose three of the following:

- BUS 360 or 361 Organizational Behavior **OR**
- PSY 310 Industrial/Organizational Theory
- BUS 365 or 366 Leadership
- BUS 401 Senior Seminar in Business
- BUS 430 Organization Theory
- HST 325 or 326 American Economic History **OR**
- PHL 245 Business Ethics **OR**
- Elective (selected in consultation with faculty advisor)

Management Science and Information Systems

An understanding of management science and information systems requires a reasonable level of mathematical skills. It is recommended that students have an acquaintance with calculus as, e.g., demonstrated by the successful completion of MTH 121 Calculus I.

Students must complete the following courses:

BUS 304 Electronic Commerce & the Internet
BUS 331 or 332 Management Science
BUS 333 or 334 Forecasting Models

In addition, students must choose one course from the following:

ACT 201 Accounting Information Systems
BUS 360 or 361 Organizational Behavior
BUS 401 Senior Seminar in Business
MTH 318 Operations Research **OR**
MTH 331 Mathematical Statistics I

Students may also select an elective course from 200 or 300 level courses in mathematics or computer science in consultation with their faculty advisor.

Managerial Finance

An understanding of managerial finance requires a reasonable level of mathematical skills. It is recommended that students have an acquaintance with calculus as, e.g., demonstrated by the successful completion of MTH 121 Calculus I. Students with a double major in economics and business cannot select managerial finance as a concentration.

Students must complete the following two courses:

ECN 222 or 223 Intermediate Macroeconomic Theory
ECN 360 or 361 Advanced Topics in Financial Management

Additionally, students must choose either:

ECN 362 or 363 Multinational Financial Management **OR**
ECN 365 or 366 Mergers & Acquisitions

Students will select one additional course in consultation with their faculty advisor. The additional course may be selected from the list below, but is not restricted to the listed courses:

ECN 311 or 312 Mathematics for Financial Analysis
ECN 344 or 345 Investments & Portfolios
ECN 362 or 363 Multinational Financial Management
ECN 365 or 366 Mergers & Acquisitions
ECN 367 or 368 Derivative Markets

Marketing

Students must complete the following three courses:

BUS 341 or 342 Global Marketing
BUS 345 or 346 Marketing Management
BUS 347 or 348 Marketing Research

In addition, students must choose one of the following:

BUS 260 or 261 Marketing in Not-for-Profit Organizations

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BUS 304 Electronic Commerce & the Internet
BUS 444 or 445 Management Policy & Strategy
COM 216 or 217 Communications & Public Relations*
COM 312 or 313 Media Industries*
PSY 202 Social Psychology*

*These courses have prerequisites.

Minor Requirements

A minor in Business Administration consists of seven courses as listed below:

ECN 101 Principles of Macroeconomics **OR**
ECN 102 Principles of Microeconomics
ECN 237 or 238 Corporation Finance
ACT 101 Financial Accounting
BUS 235 or 236 Management *
BUS 239 or 240 Marketing *
MTH 104 Statistical Methods
One elective chosen in consultation with the faculty advisor

* Students choosing a minor in Entrepreneurial Studies will substitute:

BUS 351 Entrepreneurial Studies
BUS 352 Small Business Management

BUSINESS COURSES

225. Business Law I

The course provides a basic introduction to the legal aspect of business as it relates to the evolution of business structures, contracts, personal property, wills, and real property. Emphasis is given to legal terminology and problem-solving which can be useful for professional certification and entrance examinations.

226. Business Law II

A basic introduction to the legal aspects of business organizations and their commercial relationships and structures as such relates to corporations, partnerships, agency, commercial sales and paper and secured transactions. Emphasis is placed on legal terminology and problem-solving which can be useful for professional certification and entrance examinations.

223, 234. Operations & Information Systems

An introduction to the operations function and to information systems. The course treats operations issues and decisions in both the manufacturing and service sectors, including product and process design, supply chain management, outsourcing, utilizing technology, and quality. Students are introduced to specific operations methodologies, such as queuing models, forecasting models, classical inventory management, and decision analysis. The role of information technology and ethical dimensions of operations and information systems issues is integrated throughout the course.

Prerequisite: ACT 101 Financial Accounting and ECN 101 Principles of Macroeconomics and ECN 102 Principles of Microeconomics and MTH 144 Introduction to Statistical Analysis or MTH 104 Statistical Methods

Meets general academic requirement W when offered as 234.

235, 236. Management

Considerations as to why management is needed. Traditional functions (e.g., planning, controlling, organizing, etc.) are examined in the light of current cross-functional and other pressures: the renewed quality effort, team-based collaboration, structural reorganization, re-engineering programs, pervasive technology-driven change, the revolution of the nature of work, new production and design processes, alternative efficiency moves, ever-present effectiveness demands, ethical decision making, and globalization.

Prerequisite: ACT 101 Financial Accounting and ECN 101 Principles of Macroeconomics and ECN 102 Principles of Microeconomics and MTH 144 Introduction to Statistical Analysis or MTH 104 Statistical Methods

Meets general academic requirement W when offered as 236.

239, 240. Marketing

This course will provide a decision-oriented overview of marketing management in modern organizations. This course will take a strategic approach to the presentation of marketing and will provide a broad introduction to marketing concepts, the role of marketing in society and in the firm, and the various factors that influence marketing decision making. Specific topics will include: buyer behavior, marketing research, macro environment, new product development, product life cycle, channels of distribution, advertising, and pricing.

Prerequisite: ACT 101 Financial Accounting and ECN 101 Principles of Macroeconomics and ECN 102 Principles of Microeconomics and MTH 144 Introduction to Statistical Analysis or MTH 104 Statistical Methods

Meets general academic requirement W when offered as 240.

260, 261. Marketing in Not for Profit Organizations

The goal of this course is to develop the specific knowledge, skills, and attitudes needed to enable not-for-profit organizations to satisfy the needs and desires of various publics. Through selected readings, case studies, group discussions, lectures, guest speakers and a hands-on project, the course will analyze marketing opportunities pertinent to not-for-profit organizations and creatively develop plans to accomplish the organization's objectives.

Prerequisite: BUS 239 or 240 Marketing or permission of instructor. Limited to juniors or seniors.

Meets general academic requirement W when offered as 261.

304. Electronic Commerce & the Internet

This course focuses on how tangible and electronic (or "digital") products are produced, marketed, distributed, and supported in internet environments. The course also includes a technological overview of the internet and the world wide web, its organizational effects, security and privacy issues, electronic payment methods, legal and ethical issues, and e-commerce business models.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors

331, 332. Management Science

A survey of analytical models used to solve business problems in profit and nonprofit organizations. Topics include linear programming, integer programming, project scheduling, transportation and assignment models, decision analysis, excel-based simulation models and network models. Throughout the semester the models utilize management science software to solve applied business problems.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors

Meets general academic requirement W when offered as 332.

333, 334. Forecasting Models

An introduction to the mathematical and statistical models used in business and economic forecasting. Emphasis is placed on regression models, exponential smoothing, and Box Jenkins (ARIMA) models. Both

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forecasting theory and applications are examined.

Prerequisite: MTH 144 Introduction to Statistical Analysis or MTH 104 Statistical Methods and ECN 101 Principles of Macroeconomics and ECN 102 Principles of Microeconomics. Limited to juniors or seniors Meets general academic requirement W when offered as 334.

335, 336. Labor/Management Relations

The course begins with an introduction to and overview of major legislation affecting the labor movement in the U.S. Then, the major focus is on fostering an understanding of historical, contemporary, and likely future trends in the nature of labor/management relations in this country.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors Meets general academic requirement W when offered as 336.

339, 340. Human Resources Administration

Concerns a broad range of important organizational activities, including the recruitment, selection, training, development, compensation, retention, evaluation, and promotion of personnel. This course places great emphasis on the many laws that impact the firm's personnel decisions while viewing the human resource department as internal consultants to the organization in addressing cost, productivity, and quality problems related to the work force.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors Meets general academic requirement W when offered as 340.

341, 342. Global Marketing

This course is designed to introduce students to the international business environment and to enable them to make marketing decisions in a global context. For instance, how will a different culture, a different legal environment, or a different level of literacy affect strategy? Issues to be addressed will include: How does the foreign environment affect a marketing strategy? Do we simply export to foreign markets or produce locally? Do we market the same product or adapt the product to the local market? Do we use the established distribution system or develop our own? Do we just shift a proven domestic campaign overseas or must we develop a plan tailored to each foreign market?

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors Meets general academic requirement W when offered as 342.

345, 346. Marketing Management

An intermediate level course which builds on the foundations of BUS 239, 240 Marketing. The emphasis will be on the understanding and utilization of concepts and theories underlying marketing planning and study, consumer behavior, and industrial marketing. Integrates treatment of individual functional topics in marketing into a framework which facilitates understanding of the formulation, implementation, and evolution of an organization's total Marketing strategy. The focus is on development of an appreciation of marketing as an essentially interdisciplinary phenomenon and a management oriented understanding of marketing as a dynamic process.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors Meets general academic requirement W when offered as 346.

347, 348. Marketing Research

This upper level course expands upon the student's knowledge base from marketing and statistics. This course takes a systems approach to the design and implementation of marketing research. Topics include: identifying and specifying data needs, methods of data collection, analysis and interpretation of results. Attention is given to identifying the many sources of error that occur when conducting research and ways of trying to minimize total error. In addition to traditional course material, students, in teams, work on a

semester-long marketing research project for a client. At the end of the semester, each team delivers a formal oral presentation of their findings to the client along with an accompanying written report.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors Meets general academic requirement W when offered as 348.

349, 350. Advanced Marketing

An advanced course designed to afford selected students the opportunity to explore, in depth, special topics in marketing for which individual, formal course coverage is not available. Relies on structured research and/or literature review, and discussion of classical or contemporary marketing issues.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing, and ECN 237 or 238 Corporation Finance or permission of instructor. Limited to juniors or seniors Meets general academic requirement W when offered as 350.

351. Entrepreneurial Studies

The initial entrepreneurship course is designed to awaken the student's entrepreneurial spirit. Class discussions and textbook readings will explore entrepreneurial characteristics, creative thinking methods, risk analysis, and business planning. Since the business plan serves as the model for entrepreneurial thinking, students will work in teams to build a business plan for a hypothetical business. Writing a business plan will expose the student to the marketing research methods, marketing strategies, and financial planning procedures needed to start a new venture.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors

352. Small Business Management

This course is designed to answer the "now what?" questions that face entrepreneurs once a new venture is launched. Issues including cash management; human resource issues; legal and regulatory concerns; ethical issues; operations; control of growth; distribution and sales; and successful exit strategies.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors

360, 361. Organizational Behavior

An overview and application of theory explaining how and why people behave as they do, individually or in groups, in organizational settings. Emphasis is on the effects of personal, group, and organization level characteristics. Areas of focus include: behavioral research methodology in organizations; motivation, performance, and satisfaction; perception; stress, personality, and adult development; group structures and processes; leadership, power, conflict, and decision making; change theory and intervention.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors Meets general academic requirement W when offered as 361.

365, 366. Leadership

We examine theories of leadership, including schools of thought that argue it is a trait, a style, a behavior, or a function of context. Consideration is given to what is best for leading individuals, groups, or organizations. The question of whether leadership is needed at all, whether gender makes a difference, or whether it is nothing more than "having a vision," will be explored. The models covered will be applied to readings and films, including, but not limited to, *The Great Gatsby*, *Henry V*, *The Titan*, *The Bridge on the River Kwai*, *Moby Dick*, *All the King's Men*, *Plutarch's Lives*, *The Man Who Would Be King*...

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors Meets general academic requirement W when offered as 366.

401. Senior Seminar in Business

An in-depth examination of selected contemporary or classical issues in business through structured research and/or literature review and discussion.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors

430. Organization Theory

Contemporary organizational sciences: methods of organizational research; historical determinants of large-scale organizations; similarities and differences for profit, not-for-profit, and public organizations; organizational goals, effectiveness, structure, and technology; organizational birth, development, decline, and death; strategic design; organizational economics; organization-environment models.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to juniors or seniors

433, 434. Entrepreneurship Policy and Strategy

A case based seminar focusing on issues of venture capital and other forms of capitalization and enterprise growth; initial public offerings (IPOs); and entrepreneurial strategy. Senior majors or minors only. This course is not open to students who have or are taking BUS 444, 445 Management Policy and Strategy.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management, BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. BUS 351 Entrepreneurial Studies. Limited to seniors

Meets general academic requirement W when offered as 434.

444, 445. Management Policy & Strategy

A marriage of contemporary industrial/organizational economics with management practice and theory into what is known as strategic management. An overview of analysis: industry analysis, industry attractiveness, strategic mapping, driving forces, industrial life-cycles, company (situation) analysis. An overview of formulation: corporate, business, functional, and global strategy design. The course relies heavily on discussion and case study. Senior majors or minors only. This course is not open to students who previously enrolled BUS 433 or 434 Entrepreneurship Policy & Strategy.

Prerequisite: BUS 233 or 234 Operations & Information Systems and BUS 235 or 236 Management and BUS 239 or 240 Marketing and ECN 237 or 238 Corporation Finance. Limited to seniors

Meets general academic requirement W when offered as 445.

450. Senior Seminar in Human Resources Administration

An in-depth examination of selected human resources administration issues through structured research and/or literature review and discussion. Seniors only.

Prerequisite: BUS 339 or 340 Human Resources Administration. Limited to seniors

Meets general academic requirement W.

950. Small Business Institute

This program enables students to engage in on- and off- site pro bono consultation to area small businesses under the direction of the Entrepreneur-in-Residence. Students will receive an up-close look at the problems and challenges of operating a small business. Working in teams, the students will submit a report citing the history, problem analysis, and recommendations to the business owner and the Small Business Administration.

Prerequisite: BUS 351 Entrepreneurial Studies

960. Business Administration Internship

Under faculty supervision, students have the opportunity to learn by interning about ten hours per week in an organization. This gives students the opportunity to try out possible careers, apply classroom knowledge to "real world" situations, and establish contacts with professionals in their field of interest. Students are required to keep a professional journal, attend group meetings, and give a formal oral presentation about their internship experience. Open to junior and senior majors or minors only. Pass-fail only.

965. Entrepreneurial Practicum

Students may elect to work in an entrepreneurial business environment and write a business plan or students may elect to create a new business that they intend to personally pursue after graduation and write a business plan. Students may also elect an independent study in the field of international entrepreneurship or venture capital investing and write a comprehensive report of the findings and conclusions. In all cases students will visit outside businesses and organizations as part of the work. All of these efforts will be supervised directly by the Entrepreneur-in-Residence.

Prerequisite: BUS 351 Entrepreneurial Studies, BUS 433 or 434 Entrepreneurship Policy and Strategy. Limited to seniors

MAASTRICHT EDUCATION ABROAD PROGRAM (MEA)

The following courses are offered through the Center for European Studies for students participating in the Maastricht education abroad program.

261. European Economic Integration

An outline of the effects of European integration on the economy and the main changes in the institutional economic environment of business. In addition, an introduction to the economic analysis of trade policy measures using traditional and modern theories will be given.

265. International Management and Business Policy

Introduction to the strategic management of international and multinational firms. Enterprise strategies with respect to the choice of geographic markets, modes of market entry, ownership policy, and sourcing will be discussed.

267. Global Marketing Strategy

This course is designed to provide an understanding of marketing strategy from an international, multinational, or global point of view.

CHEMISTRY (CHM)

Head of Department: Professor Donald W. Shive

Associate Professors: Anderson, Baar, Ingersoll, Russell

Assistant Professors: Colabroy, Keane, Kelsey, Smith,

Visiting Scientists: Ivanova, Panek

Lecturers: Casey, Gannon

The major program in chemistry provides a curriculum that accommodates and encourages students with various interests. The major program is organized around a required core of courses in the traditional areas of chemistry. Each course in the core curriculum involves a laboratory component that promotes (1) hands-on knowledge of scientific experimentation, (2) the capacity to interpret experimental data, (3) an ability to analyze data statistically, and (4) the skill to communicate results. The major also includes elective courses which broaden students' exposure to related areas of science. The chemistry department is accredited by the American Chemical Society.

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Students planning to pursue graduate studies in chemistry or employment in a research position with a chemical or pharmaceutical firm will need to take the General Physics I, II sequence listed as electives. Individuals planning to pursue graduate studies are strongly advised to complete additional advanced courses in the sciences and math.

To achieve ACS certification students will need to complete additional courses beyond those required.

Students who wish to combine a chemistry major with other programs of study and who may be interested in pursuing careers in areas where a chemistry background may be useful, such as government service, law, sales, library science, or technical writing should consult with their chemistry advisor when choosing electives.

Students interested in the health professions should consult with the health professions office.

Candidates for teacher certification should consult with the Department of Education at Muhlenberg College.

Major Requirements

To declare and remain a major in chemistry, a student must maintain at least a 2.000 grade point average for all courses applicable to the major.

See also these interdisciplinary science major descriptions:

Biochemistry
Environmental Science
Natural Science
Physical Science

Chemistry Major

Required Courses:

CHM 103 General Chemistry I
CHM 104 General Chemistry II
CHM 203 or 205 Honors Organic Chemistry I **OR** CHM 201 Organic Chemistry I
CHM 204 or 206 Honors Organic Chemistry II **OR** CHM 202 Organic Chemistry II
CHM 311 Analytical Chemistry I
CHM 312 Analytical Chemistry II
CHM 321 Physical Chemistry I
CHM 322 Physical Chemistry II
CHM 331 Inorganic Chemistry
MTH 121 Calculus I

MTH 122 Calculus II

and

two course numbered between 400 and 460:

CHM 403 Chiral Synthesis (0.5 course units)
CHM 404 Organic Synthesis Lab (0.5 course units)
CHM 410 Laboratory Robotics and Automation (0.5 course units)
CHM 420 Laser Chemistry (0.5 course units)
CHM 430 Organometallic Chemistry (0.5 course units)
CHM 480 Special Topics in Chemistry (0.5 course units)

Electives: two additional courses selected from:

PHY 211 General Physics I
PHY 212 General Physics II **or** PHY 250 Simulating Science
MTH 144 Introduction to Statistical Analysis **or** MTH 223 Calculus III **or** MTH
226 Linear Algebra **or** MTH 227 Differential Equations
BIO 152 Principles of Biology III
BIO 220 Biochemistry
ESC 310 Environmental Chemistry **or** ESC 312 Toxicology

Chemistry Minor

A minor in chemistry consists of a total of seven course units in chemistry chosen from courses numbered 103 and above, including at least three course units numbered 300 or above. Courses in other departments cross-listed under chemistry may also be included.

CHEMISTRY COURSES

100. Introductory Chemistry

An introduction to the basic principles of chemistry with considerable attention given to reading and computational skills, problem solving skills, study skills, and good learning techniques in general. Designed for science students needing additional preparation for the General Chemistry courses (103 and 104). Three hours of lecture, recitation and one three-hour laboratory per week. Does not satisfy a major/minor or pre-professional requirement.

Meets general academic requirement S.

101. Chemistry of the Environment

Designed for students majoring in social sciences and humanities. A study of the basic principles of chemistry. The approach is qualitative, with reference to discoveries that were important in the development of the science of chemistry. The principles are applied to discussions of current environmental concerns such as air and water pollution, global warming, ozone depletion, alternative energy sources and waste disposal. Additional topics may include aspects of metallurgy and geochemistry. No previous work in chemistry is assumed. Three hours (lecture-demonstrations) per week.

Meets general academic requirement S.

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102. Chemistry of Life

Designed for students majoring in social sciences or humanities. A study of the basic principles of organic chemistry and biochemistry. The approach is mainly qualitative, with reference to discoveries that were important in the development of the science of chemistry. The principles are applied to discussion of topics such as food and food additives, medicines, drugs, toxicology, and the chemistry of body processes. No previous work in chemistry is assumed. Three hours (lecture-demonstrations) per week.

Meets general academic requirement S.

103. General Chemistry I

Designed as a basic course for students majoring in the physical or biological sciences. A study of the fundamental principles of chemistry and of the important elements and their compounds. Lecture-demonstrations and computer-assisted instruction are employed to illustrate concepts. Weekly recitations provide a small group setting for discussions and problem-solving. A laboratory component introduces students to a variety of fundamental techniques with emphasis on volumetric analysis, chemical equilibrium, and descriptive chemistry of selected elements. Three hours of lecture, one hour of recitation, and one three-hour laboratory per week.

Prerequisite: High School chemistry

Meets general academic requirement S.

104. General Chemistry II

A continuation of Chemistry 103. One Chemistry 104 lab section is reserved for a small number of students, enrolled by invitation. This group engages in project work designed as an introduction to methods of scientific research. Three hours of lecture, one hour of recitation, and one three-hour laboratory per week.

Prerequisite: CHM 103 General Chemistry I

Meets general academic requirement S.

201. Organic Chemistry I

Designed for students majoring in biology and natural science. Structure, preparation, and properties of organic compounds with an emphasis on stereoisomerism, synthetic methods and reaction mechanisms. Laboratory work involves an introduction to preparative and analytical techniques. Weekly recitations provide a setting for discussions and problem solving. Three hours of lecture, one hour of recitation and one three-hour laboratory per week.

Prerequisite: CHM 104 General Chemistry II

202. Organic Chemistry II

A continuation of Chemistry 201. Three hours of lecture, one hour of recitation, and one three-hour laboratory per week.

Prerequisite: CHM 201 Organic Chemistry I

203, 205. Honors Organic Chemistry I

An investigation of the structure, properties, and reactivity of organic compounds. Topics emphasized include nomenclature, stereochemistry, spectroscopy, reaction mechanisms, and synthesis. Classroom and laboratory work are closely integrated. Laboratory work includes both collaborative efforts and individual investigations. Preparative and analytical techniques utilized in the synthesis of organic compounds are featured, as well as structure determination, molecular modeling, and investigation of reaction mechanisms. Hands-on use of a variety of instrumentation is emphasized. A total of six hours lecture, discussion, and laboratory per week.

Prerequisite: CHM 104 General Chemistry II

Meets general academic requirement W when offered as 205.

204, 206. Honors Organic Chemistry II (M)

A continuation of Chemistry 203. Three hours of lecture, one hour of recitation and one three-hour laboratory per week.

Prerequisite: CHM 203 or 205 Honors Organic Chemistry I

Meets general academic requirement W when offered as 206.

311. Analytical Chemistry I

Data analysis, chemical equilibria, classical methods of analysis and electroanalytical chemistry are explored. Data analysis and statistics including error propagation, confidence intervals and analytical calibration methods are examined. Acid-base, oxidation-reduction, complex and multiple simultaneous equilibria are applied to analytical problems. Classical analytical methods, such as gravimetric and volumetric analysis, as well as electrochemical methods (ion selective electrodes, potentiometry and voltammetry) are also discussed. Laboratory work involves the application of a variety of these methods to quantitative chemical analysis and experimental design and implementation. Three hours of lecture and one three-hour laboratory per week.

Prerequisite: CHM 202 Organic Chemistry II or CHM 204 or 206 Honors Organic Chemistry II

312. Analytical Chemistry II

Theory, instrumentation and applications of instrumental methods of analysis involving separations and interaction of electromagnetic radiation with matter are discussed. Principles of analytical separation methods are explored including gas, liquid and supercritical fluid chromatographies and capillary electrophoresis and electrochromatography. Topics on atomic and molecular spectroscopy include atomic absorption, emission and fluorescence, ultraviolet-visible, molecular fluorescence and phosphorescence, Fourier transform infrared, and mass spectrometry. In addition, techniques are reinforced through practical experience in a well-equipped instrumentation laboratory. Three hours of lecture and one three-hour laboratory per week.

Prerequisite: CHM 311 Analytical Chemistry I

321. Physical Chemistry I

The basic principles of quantum mechanics and their applications to problems of chemical interest are discussed. Topics include: atomic and molecular structure, chemical bonding, and molecular spectroscopy. In addition, the fundamentals of chemical kinetics, reaction rate theories, and reaction mechanisms are investigated. Three hours of lecture and one three-hour laboratory per week.

Prerequisite: CHM 202 Organic Chemistry II or CHM 204 or 206 Honors Organic Chemistry II, and MTH 122 Calculus II

322. Physical Chemistry II

Principles and applications of chemical thermodynamics are explored including the concepts of: internal energy, enthalpy, entropy, free energy, and chemical potential. Concepts are interpreted on a molecular level and applied to a variety of problems: chemical reactions, chemical equilibria, phase changes, solution chemistry, and bioenergetics. Statistical mechanics is introduced to demonstrate the connection between properties of individual molecules and the thermodynamic properties of macroscopic systems. Three hours of lecture and one three-hour laboratory per week.

Prerequisite: CHM 202 Organic Chemistry II or CHM 204 or 206 Honors Organic Chemistry II and MTH 122 Calculus II

331. Inorganic Chemistry

Modern theories of atomic and molecular structure are covered at an advanced level. Particular emphasis is given to symmetry, ligand field theory, coordination chemistry, and applications of inorganic systems. Three hours of lecture and three hours of laboratory per week.

Prerequisite: CHM 202 Organic Chemistry II or CHM 204 or 206 Honors Organic Chemistry II.

403. Chiral Synthesis**0.5 course units**

Methods for achieving asymmetric synthesis and resolving racemic mixtures will be explored. This will include classical enantiomeric resolution, the use of chiral auxiliaries, chiral reagents, chiral starting materials and the employment of stereoselective reactions. Key syntheses from primary literature that utilize these methods will serve as a framework to illustrate the chiral strategies. Students will present articles from primary literature. (two 75 minute lecture/presentations per week).

Prerequisite: CHM 202 Organic Chemistry II or CHM 204 or 206 Honors Organic Chemistry II

404. Organic Synthesis Lab

0.5 course units

This is a lab course designed to introduce students to modern organic synthesis using a project-based format. Each student will design and execute a multi-step synthesis of a target molecule. Students will utilize the chemical literature and on-line literature searching protocols and will document their results with in-class presentations as well as written reports. Product analysis will include use of IR, NMR, GC/MS and UV/Vis spectrometers. Significant use will also be made of molecular modeling. (One hour lecture, three hours of lab per week).

Prerequisite: CHM 202 Organic Chemistry II or CHM 204 or 206 Honors Organic Chemistry II

410. Laboratory Robotics and Automation

0.5 course units

Automated techniques and philosophies, as applied to the modern analytical laboratory, will be discussed. Automated analytical sample preparation, data acquisition, and data analysis methods will be explored both as reported in the primary literature and through hands-on experimentation in the laboratory. Robotic workstations for liquid handling, and experimental design approaches will be used to systematically study sample preparation variables in the automated laboratory. Contemporary analytical separations will be used for sample analysis with an emphasis on pharmaceutical applications

Pre- or co-requisite: CHM 312 Analytical Chemistry II or permission of instructor

420. Laser Chemistry

0.5 course units

Students will explore the workings of lasers and how chemists take advantage of their properties to probe the dynamics and energies of chemical reactions. The course will begin with some commercial applications of lasers and progress rapidly to the discussion of femtosecond spectroscopy and how it is being used to investigate the breaking of bonds in real time.

Prerequisite: CHM 321 Physical Chemistry I or permission of instructor

430. Organometallic Chemistry

0.5 course units

The chemistry of compounds containing metal-carbon bonds will be explored. Topics will include the structure and bonding of organometallic compounds, their reactions and reaction mechanisms, spectroscopy, and their use in industrial processes and organic synthesis.

Pre- or Corequisite: CHM 331 Inorganic Chemistry I

453. Advanced Biochemistry I

Discussion of structure-function relationships and the chemistry of biomolecules including proteins and nucleic acids.

Prerequisite: CHM 311 Analytical Chemistry I and CHM 312 Analytical Chemistry II and BIO 220 Biochemistry

454. Advanced Biochemistry II

Modern research techniques in biochemistry are emphasized. Students solve biochemical problems using the primary literature as a guide for experimental protocol and are expected to design and execute an original independent research project.

Prerequisite: CHM 453 Advanced Biochemistry I

480. Special Topics in Chemistry

0.5 course units

Variable content depending upon the interests of the students.

Prerequisite: Permission of instructor

050, 950. Seminar

0.0 or 0.5 course units

The seminar features presentations by students, faculty members, and visiting scientists. In the fall semester, students are introduced to the use of the chemical literature, including on-line searching of *Chemical Abstracts* and other scientific databases. To receive 0.5 course units for the seminar, a student must enroll in two semesters of the course, including at least one fall semester, and present a seminar along with a written report. Participation includes attending a specified number of seminars each semester.

960. Chemistry Internship

Majors are eligible for internship programs with the approval of the department.

970. Chemistry Independent Study/Research

Open to qualified students with the approval of the department.

CLASSICAL CIVILIZATION (CLS)

Classical Civilization Studies provides the opportunity to integrate several disciplines in the study of the ancient Mediterranean. Along with courses specifically focused on Greek and Latin texts, relevant classes may be completed in history, philosophy, art, and languages.

Available Courses

Other Departments:

ARH 201 or 202 Ancient Art
HST 201 or 202 Ancient Near East
HST 203 or 204 Ancient Greece
HST 205 or 206 Ancient Rome
LTN 101, 102 Elementary Latin I & II
LTN 203, 204 Intermediate Latin I & II
PHL 221 Ancient Philosophy

Classics Courses in English Translation (CLS)

The following courses use English translations of classical literature and require no knowledge of classical languages.

310, 311. Classical Drama

Reading and discussion of selected plays of the Greek and Roman tragedians and comedians; consideration of theme and statement in interpretation of the plays, of world-views and cultural values implicit in them, and of societal and individual purposes served by drama. Offered in alternate years.

Meets general academic requirement L (and W which applies to 311 only).

320, 321. Classical Mythology

An introduction to major classical myths with particular attention given to the relationship of myth to religion, philosophy, psychology and history. Readings are from a variety of Greek and Roman authors.

Meets general academic requirement L (and W which applies to 321 only).

330, 331. Hero & Anti-Hero in Classical Literature

A study of the concept of the hero as a reflection of human values, social roles, and general perception of human experience as found in selected classical works, including epic and lyric poetry, satire, and literature of love and abuse. The importance of the anti-hero in contemporary literature will also be considered. Offered in alternate years.

Meets general academic requirement L (and W which applies to 331 only).

COMMUNICATION (COM)

Head of Department: Associate Professor David I. Tafler

Professor: Jansen

Assistant Professors: Kahlenberg, Sullivan, Taub

Visiting Assistant Professor: Ranieri

Instructor: Pooley

The communication major provides a systematic scholarly approach to the analysis of media and society. Knowledge of how media and media industries function is essential for responsible citizen participation in a democratic society. Courses in the major provide students with conceptual and analytic tools to assess the social impacts of media as well as to explore media production as a form of creative expression. All courses are informed by concerns for the value-related issues and controversies raised by media practices. The major prepares students for graduate study and provides education for careers in journalism, broadcast media, publishing, advertising, public relations, political advocacy, media law, teaching, film, video, and new media production. An optional internship permits students to explore the relevance of their studies to communication practices.

Major Requirements

Majors will complete a minimum of nine courses including the following:

COM 201 or 202 Media & Society

COM 230 or 231 Documentary Research

COM 301 or 302 Media Theory & Methods

Six electives within the major including at least one course from each of the three distribution areas: Discovery, Structure, Practice. At least three of these electives must be numbered 300 or above.

COM 201 or 202 Media & Society and COM 230 or 231 Documentary Research will normally be completed prior to fulfilling additional major requirements. These courses do not count towards fulfillment of distribution requirements in the major.

Distribution Areas

DISCOVERY

These courses emphasize the breadth of the field of communication. They are introductory courses that provide an overview of different sub-specializations within the field.

STRUCTURE

These courses use communication theories and methodologies to provide in-depth exploration of significant communication institutions, traditions or cultural forms.

PRACTICE

These courses provide students with opportunities to become producers, not merely consumers, of print, video, and audio information. Each course gives students in-depth opportunities to put theory into practice in research, writing, or electronic production.

Honors Program

The Honors Program allows qualified students the opportunity to enrich their experiences in communication theory, history, and practices. Honors students must participate in the Communication Honors Seminar (COM 480 or 481) which usually meets once a year, and produce an original research or production project which they will present to the faculty and their peers in a colloquium setting. They will also have opportunities to participate in a program of periodic lectures and field trips. To qualify, students must maintain at least a 3.500 grade point average in the major, and a 3.300 grade point average overall. Participation in the Honors Program is not automatic; qualified students must prepare a written application. Applications are subject to faculty review. Interested students should contact the Director of the Honors Program regarding application procedure and deadlines.

Writing Intensive Courses

The department regularly offers writing intensive courses. Normally at least two writing intensive courses are offered each semester.

INTRODUCTORY COURSES

101. Introduction to Communication

Uses a topical approach to explore issues and controversies raised by the powerful presence of mass media in contemporary society. Provides students with analytical tools necessary to think critically and self-consciously about media. Develops understanding of the forces which shape mass media, their products, and their effects on society. Topics that may be explored include children and television, violence in the media, media and social inequality, news, audience response and resistance to mediated messages. This course does not satisfy a major requirement or elective.

Meets general academic requirement B.

201, 202. Media & Society

Examines influences of mass media on participatory democracy and its cultural forms. Introduces students to social science approaches to the study of communication phenomena including the logic of inquiry, standards of evidence, and grounds for making claims about communicative behaviors. Explores landmark studies within the discipline. Topics may include: media effects, persuasion, cultivation theory, agenda-setting, and opinion leadership.

Meets general academic requirement B (and W which applies to 202 only).

230, 231. Documentary Research

Introduces documentary genres, methods, evidence, and interpretive practices, and positions documentary work in relation to the broader traditions of communication research. Conventions for sense-making and truth-telling in personal documents, visual forms, journalism, and social science are explored. Students

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acquire fundamental skills in investigative research, fact-checking, assessing qualitative and quantitative evidence, gathering and interpreting documentary information, and using print and electronic archives. A minimum of two hours per week of field work or site research is required.

Prerequisite: COM 201 or 202 Media & Society

Meets general academic requirement W when offered as 231.

301, 302. Media Theory & Methods

Explores classic and contemporary media theories and research methodologies including the historical and philosophical foundations of paradigm formation in media research, the social and institutional contexts that led to the emergence of the communication discipline, and current controversies within the field. This course builds upon principles and concepts introduced in Media and Society.

Prerequisites: COM 201 or 202 Media & Society and COM 230 or 231 Documentary Research

Meets general academic requirement W when offered as 302.

DISCOVERY

208, 209. Communication in the Global Community

Provides a comparative analysis of the principles guiding the organization, development, and operations of media systems in different political, economic, social, and cultural contexts. Considers the global expansion of mass media and the increasing connections of world citizens in a “global community.” Compares the production, distribution, reception, and effects of mass mediated messages in countries around the world. Topics explored include media systems and their social and political contexts, media and revolution, global media intersections with local audiences, and politics of international news and entertainment flows.

Meets general academic requirement W when offered as 209.

212, 213. New Information Technologies

Explores the problems and prospects that surround the introduction and diffusion of new information technologies such as computers, the internet, and digital media in the household, workplace, and market. The social and cultural impact of these technologies on personal privacy, self-identity, information access, and global citizenship are considered. Develops an understanding and appreciation of the relations between science, technology, economics, culture, and law. Selected topics include technological utopianism, virtual communities, information markets, the gendering of technologies, the politics of netiquette, and computers and productivity in the workplace.

Meets general academic requirement W when offered as 213.

218, 219. Patriotism and the Press

This course looks at the history of the contested relationship between patriotism and the press. It begins from the Civil War, the first American conflict in which the press played a significant and controversial role, and continues to contemporary arguments over the media’s appropriate role in the conflicts involving international terrorism. Among the questions to be explored are the public’s right to know, reporters’ access to the battlefield, and government censorship.

Meets general academic requirement W when offered as 219.

225, 226. Journalistic Traditions

Introduces students to the great traditions of interpretive, documentary, and advocacy journalism and photojournalism. Includes analysis of exemplary works in the tradition, and provides some opportunities to develop skills through individual projects.

Meets general academic requirement W when offered as 226.

240, 241. Methods of Film & Video Analysis

Introduces different strategies and different approaches for analyzing film and video texts including: formal, narrative, semiotic, psychoanalytic, social/cultural, and feminist. Students will develop an understanding of the grammar, vocabulary, and conventions of film and video production, and the factors that shape viewers’ reception.

Meets general academic requirement A (and W which applies to 241 only).

242, 243. Twentieth Century Media: Film, Radio, & Television

Analyzes the historical development of radio, film, and television genres, technologies, and formats and considers the cultural, economic, political, and social climates in which they evolved.

Meets general academic requirement H (and W which applies to 243 only).

251. Fundamentals of Visual Communication

Introduces basic concepts of time-based visual media with an emphasis on the perception and experience of moving images, kinesics, and the structure and aesthetics of cinematic language. Students will learn how to work with cameras, audio-recording equipment, and post-production facilities.

STRUCTURE

210, 211. Media: Legal & Constitutional Issues

Introduces the philosophy, history, development, and current interpretations of U.S. media law; explores constitutional rights, laws, precedents, and public concerns which guide U.S. media, the public, the courts, regulatory agencies, and policymakers.

Prerequisite: COM 101 Introduction to Communication or COM 201 or 202 Media & Society

Meets general academic requirement W when offered as 211.

312, 313. Media Industries

Considers the forces (legal, political, economic, historical, and cultural) that shape what we watch on television, read in books, or hear on the radio. Explores a wide range of print and electronic media industries as well as developing media like the internet. Economic and critical analysis is used to examine both the institutional forces and individualized decisions that ultimately shape the content and format of mass media messages. Selected topics include media conglomeration, target marketing, media integration and digital television, and globalization of media markets.

Prerequisite: COM 101 Introduction to Communication or COM 201 or 202 Media & Society

Meets general academic requirement W when offered as 313.

314, 315. Audience Analysis

Examines the concept of audiences from a variety of qualitative and quantitative research perspectives: as “victims,” users, subcultures, and market commodities. Television ratings, public opinion polls, and other strategies for measuring audience feedback are analyzed and assessed.

Meets general academic requirement W when offered as 315.

316, 317. Mass Persuasion & Propaganda

Examines the historical development, social roles, communicative techniques, and media of propaganda. Explores the evolution of religious, political, and commercial forms of persuasion; the rise and eclipse of theories of mass society, and the emergence of narrow-casting and target marketing. Case studies are drawn from war-time propaganda, political campaigns, advertising, and news.

Meets general academic requirement B (and W which applies to 317 only).

344, 345. Documentary Film

Examines documentary and other reality-based modes of film and video production and the assumptions these forms make about truth and authenticity, and how they shape our understandings of the world. Both historical and contemporary forms will be considered.

Meets general academic requirement A (and W which applies to 345 only).

346, 347. Exploratory Cinema

Examines the origin and growth of “avant-garde” cinema. Traces the history of film and video art from the early 1920’s to the present focusing on its structural evolution, thematic shifts, coexistence with commercial cinema, and its impact on contemporary media.

Meets general academic requirement A or H (and W which applies to 347 only).

110 / Communication

370, 371. Popular Culture & Communication

Traces the development of popular forms with emphasis on the ways that social class has structured access, use, and creation of cultural artifacts and practices. Topics explored include both commercial and non-commercial forms of amusements, leisure, and entertainment.

Prerequisite: COM 101 Introduction to Communication or COM 201 or 202 Media & Society recommended but not required

Meets general academic requirement W when offered as 371.

372, 373. Race & Representation

Explores the social construction of the concept of race and barriers to communication erected by prejudice, discrimination, and marginalization of minority voices. Examines topics in multicultural, cross-cultural, and interpersonal communication as well as analysis of documents, personal narratives, and media images. Primary emphasis is placed upon African-American experience in the U.S.

Meets general academic requirement D (and W which applies to 373 only).

374, 375. Gender, Communication & Culture

Examines gendered forms of communication: differences in how women and men are socialized to think, talk, and make sense in American culture; the implications of these differences for communication; the ways race and social class intersect with these differences and the ways commercial mass media both cultivate and undermine gendered forms of communication.

Prerequisite: COM 101 Introduction to Communication or COM 201 or 202 Media & Society recommended but not required

Meets general academic requirement W when offered as 375.

378, 379. Sport, Culture & Media

Explores the cultural artifacts, historical developments, and related systems of power that comprise sport media. Students observe, document, and analyze mediated sport and its prominence in our cultural environment. Includes analysis of the conventions of sports journalism (electronic and print) and transformations in those arenas.

Prerequisite: COM 101 Introduction to Communication or COM 201 or 202 Media & Society recommended but not required.

Meets general academic requirement W when offered as 379.

440, 441. Film Theory & Criticism

Investigates the principal theories of film considering the film text as a mode of communication, as an art form, and as an ideological practice. Explores how film and video control the production of pleasure and meaning during reception. Students view a variety of films representative of specific cultural and historical contexts, and are introduced to relevant theories and their application. Emphasizes the development of critical and analytical skills.

Prerequisite: COM 240 or 241 Methods of Film & Video Analysis or COM 344 or 345 Documentary Film or COM 346 or 347 Exploratory Cinema

Meets general academic requirement W when offered as 441.

480, 481. Communication Honors Seminar

Each year this course will have a different thematic focus, which will allow honors students to engage with faculty and visiting lecturers in challenging dialogues and research experiences, which will culminate in the production and presentation of an original research project or creative work based on the seminar theme. Provides students with extensive opportunities to work closely with faculty mentors in developing their research project and creative work.

Enrollment limited to Honors Program students only, during the senior year (or by permission of faculty instructor).

Meets general academic requirement W when offered as 481.

PRACTICE

216, 217. Communication & Public Relations

Explores public relations issues within organizational contexts; emphasis on communication theory and research into public relations practices. Topics include the origins and development of public relations, its role in society, principles of public relations theory and practice; and the ethical issues raised by various philosophies and practices of public relations.

Prerequisite: COM 101 Introduction to Communication or COM 201 or 202 Media & Society recommended but not required

Meets general academic requirement W when offered as 217.

321, 322. Writing for the Media

Provides intensive writing experiences in a variety of formats. Introduces students to the different conventions of writing for print media, radio, and television. Class structure, assignments, and timed writing exercises are designed to simulate a working media environment.

Prerequisite: COM 101 Introduction to Communication or COM 201 or 202 Media & Society

Meets general academic requirement W when offered as 322.

334, 335. Health Communication

Examines interpersonal as well as mediated dimensions of health communication including theories and case studies that address issues in physician and patient communication; gender, race, and cultural constituents in health communication; techniques for the production, distribution, and assessment of health-care information; the design and implementation of public health campaigns; the use of communication technologies in the production of health communications. Emphasizes writing.

Meets general academic requirement W when offered as 335.

336, 337. Environmental Communication

Explores theories, models, and strategies for production and assessment of environmental communications. Examines environmental media and campaigns, and provides students with skills to identify and solve problems in environmental communications and in the production of environmental media. Emphasizes writing.

Meets general academic requirement W when offered as 337.

338, 339. Organizational Communication

Examines communication patterns operating in large-scale organizations. The constituents, constraints, values, practices, and media of corporate cultures are investigated from historical, cross-cultural, and contemporary perspectives.

Meets general academic requirement W when offered as 339.

351. Video Production

Refines an understanding of video/television concepts and operations through the application of advanced production techniques. Provides hands-on experience beginning with the development of a professional project, treatment, script, and storyboard. Focusing on production tools and skills, class workshops and outside exercises that facilitate becoming comfortable with camera and editing equipment and with the overall production process. Conceiving, coordinating, shooting, and editing the project, production teams will encounter real-time pressure and problem-solving situations.

Prerequisite: COM 251 Fundamentals of Visual Communication

361. Radio Production

Introduces the tools, techniques, and principles of radio production. Students develop awareness of sound, the ability to structure information on the radio, and the capacity to sustain attention and build an audio documentary. Students will plan, produce, and evaluate audio projects in a variety of modes including news, documentary, dramatic, and commercial.

112 / Computer Science

365. Hypermedia

Focuses on interactive media, on the logic for authoring and designing interactive tools and experiences including those on the internet. Through explorations of electronic multimedia and its applications including such technologies as interactive video disc, CD-ROM, the world wide web, the class examines critical aspects of interactive thinking and production. Each student will conceive and design an interactive project and produce it in one or more digital environments.

Prerequisite: COM 230 or 231 Documentary Research

431. Documentary Field Work

Develops advanced skills in documentary inquiry and practice. Provides tools and opportunities for developing skills in interviewing for archival, journalistic (print and electronic), social scientific, and administrative purposes. Course is organized around the design and development of individual or group documentary projects in selected media. Completed project(s) will be exhibited in some campus or public forum, e.g. submitted to campus newspaper, aired on campus radio or television, or displayed on the department website.

Prerequisite: COM 230 or 231 Documentary Research and instructor permission

467. Advanced Electronic Media Production

Students explore the convergence of video and digital media while studying the problems of constructing narrative and documentary texts within emerging experimental formats. Through their research-production projects, students learn to work with more advanced visual and organizational concepts. Legal and ethical issues involved in media production are considered. Students present ongoing work and final projects in either an online or broadcast venue.

Prerequisite: COM 351 Video Production or COM 365 Hypermedia

INTERNSHIPS

Students may complete a limited number of faculty supervised internships in the communication field which may contribute to the award of the degree. The course units earned for these additional internship experiences apply towards meeting graduation requirements, but they do not count towards the nine course units required by the major.

960. Communication Internship

Designed to provide both an educational experience and an opportunity to work with professionals in practical preparation for a career, the internship includes a significant academic (written and/or production) component. Under faculty supervision, students will serve as interns with newspapers, television and radio stations, advertising agencies, public relations firms, publishers, health, environmental, sports, and human and public service organizations. Students must have completed the sophomore year.

Prerequisite: COM 230 or 231 Documentary Research and instructor permission

COMPUTER SCIENCE (CSI)

Head of Department: Associate Professor David Nelson

Associate Professor: Benjamin

Assistant Professor: Kussmaul

Computer science encompasses the study of computation and information processing, in both hardware and software. The curriculum combines a rigorous foundation in

programming and core CS topics, with a variety of advanced electives. The CS major will prepare students for graduate work or employment in a variety of roles, including as analysts, software designers and developers, and systems administrators.

Major Requirements

Computer Science Major

CSI 110 Computer Science I
CSI 111 Computer Science II
CSI 210 Software Engineering
CSI 220 Data Structures & Algorithms
CSI 240 Computer Organization
CSI 370 Computer Science Seminar
MTH 121 Calculus I
MTH 215 Discrete Structures (or MTH 345 Combinatorics & Graph Theory)

Four electives chosen from:

CSI 305 Database Systems
CSI 310 Programming Languages
CSI 320 Theory of Computation
CSI 326 Artificial Intelligence
CSI 340 Compiler Design
CSI 345 GUI and Web Programming
CSI 350 Operating Systems
CSI 355 Data Communications & Networks

At least one of these electives must be CSI 310 Programming Languages, CSI 320 Theory of Computation or CSI 350 Operating Systems.

One course chosen from:

MTH 122 Calculus II
MTH 144 Introduction to Statistical Analysis

Honors Program in Computer Science

At commencement, Mathematical Sciences awards honors in computer science to qualified students. The requirements for honors are: (a) a grade point average in the computer science major of at least 3.500, (b) an overall grade point average of at least 3.300, and (c) successful completion of a significant research project, approved by the CS faculty.

Minor Requirements

Computer Science Minor

CSI 110 Computer Science I
CSI 111 Computer Science II
CSI 220 Data Structures & Algorithms
MTH 121 Calculus I

114 / Computer Science

MTH 215 Discrete Structures (or MTH 345 Combinatorics & Graph Theory)

Two electives chosen from:

CSI 210 Software Engineering
CSI 240 Computer Organization
CSI 305 Database Systems
CSI 310 Programming Languages
CSI 320 Theory of Computation
CSI 326 Artificial Intelligence
CSI 340 Compiler Design
CSI 345 GUI and Web Programming
CSI 350 Operating Systems
CSI 355 Data Communications & Networks

101. Introduction to Computers

An introduction to general concepts of computer science and electronic data processing using modern desktop and networked computers. Topics include computer hardware, applications such as spreadsheets, graphics, presentation, and file transfer software, as well as the history of computers. The development of interactive Web pages using HTML and JavaScript is also covered. This course does not satisfy a major or minor requirement, nor does it satisfy the College skills requirement in reasoning.

110. Computer Science I

The design, construction, and verification of computer programs using an object-oriented programming language. Topics include algorithm development and design techniques, control structures, and data types. Four meetings per week.

Meets general academic requirement G

111. Computer Science II

A continuation of CSI 110 Computer Science I. Emphasis is placed on programming methodology, fundamental data structures (stacks, queues, linked lists, trees) and their implementation, searching, sorting, pointers, and recursion. Four meetings per week.

Prerequisite: CSI 110 Computer Science I

Meets general academic requirement G

210. Software Engineering

A project-based study of the theory, practice, processes, and tools used to design, build, and maintain large software systems. Topics include requirements analysis, system architecture, design, testing, maintenance, and project maintenance, as well as professional practice, risks, intellectual property, and social impact of computing.

Prerequisite: CSI 111 Computer Science II

Meets general academic requirement W

220. Data Structures & Algorithms

A study of the use and implementation of various structures for storing data. Topics include abstract data types, lists, trees, graphs, recursion, and the analysis and measurement of algorithms.

Prerequisite: CSI 111 Computer Science II

240. Computer Organization

An introduction to the architecture and operation of a computer system. Topics include assembly language programming, addressing methods, subroutines, microcode, assemblers and linkers.

Prerequisite: CSI 110 Computer Science I

305. Database Systems

An introduction to the hierarchical, network, and relational models of databases. Topics covered will be data structures, file organization, knowledge representation, query languages, data analysis and administration. Offered in alternate years.

Prerequisite: CSI 220 Data Structures & Algorithms

310. Programming Languages

A study of the principles that govern the design and implementation of contemporary programming languages. Topics include lexical properties, compilers, interpreters, data structures, control structures, parameter passage, and run-time environments. Procedural, functional, object oriented, and logic programming languages will be considered. Offered in alternate years.

Prerequisite: CSI 220 Data Structures & Algorithms

320. Theory of Computation

A study of the basic theoretical principles of computer science. Topics include finite automata, pushdown automata, regular expressions, Turing machines, the halting problem, unsolvability, and computational complexity. Offered in alternate years.

Prerequisite: CSI 220 Data Structures & Algorithms and MTH 215 Discrete Structures

326. Artificial Intelligence

An introduction to the topics of Artificial Intelligence; intelligent agents, search, logic, planning, learning, natural language processing, vision, robotics. Students will write programs in Lisp and Prolog.

Prerequisite: CSI 220 Data Structures & Algorithms and completion or concurrent enrollment of MTH 215 Discrete Structures

340. Compiler Design

An introduction to the principles of compiler design. Topics include LL(k) and LR(k) languages, code generation, optimization, and error recovery. Offered in alternate years.

Prerequisite: CSI 220 Data Structures & Algorithms and CSI 240 Computer Organization

345. GUI and Web Programming

The tools and techniques used to create computer programs that have rich graphical user interfaces (GUIs). Emphasis is placed on applications that make use of the World Wide Web. Topics will include XHTML, Javascript, Java servlets, and CGI programming.

Prerequisite: CSI 220 Data Structures & Algorithms

350. Operating Systems

An introduction to the management of processes, memory, and I/O devices in a multiprogramming environment. Topics include file systems, resource sharing, scheduling, interrupts, and concurrency. Offered in alternate years.

Prerequisite: CSI 220 Data Structures & Algorithms and CSI 240 Computer Organization

355. Data Communications & Networks

The concepts and techniques used to implement communications using computer networks. Topics include: the ISO network model, protocols, direct link networks, packet switching, and the Internet. Several currently used standards and network software will be examined.

Prerequisite: CSI 220 Data Structures & Algorithms and CSI 240 Computer Organization

370. Computer Science Seminar

Advanced study of selected topics in computer science. Students will also work in teams on a significant software project.

Prerequisite: CSI 210 Software Engineering, CSI 220 Data Structures and Algorithms, and CSI 240 Computer Organization, or by permission

Meets general academic requirement W

DANCE (DNC)

Head of Department: Professor Charles C. Richter

Dance Program Director: Associate Professor Karen Dearborn

Associate Professor: Averill, Dretsch

Assistant Professor: Anderson

Visiting Assistant Professor: Augustyn

Lecturer: Byrne, Creitz, Oliver

The dance program is designed to provide a solid background in the history and theory of the art in conjunction with intensive study in a variety of dance techniques. In addition to the full-time faculty, the department employs eight professional artists, each a specialist within a specific dance style, as well as four professional musicians to play for classes and performances. The curriculum, based in the liberal arts tradition, serves as an excellent preparation for graduate study programs and careers in dance. Careers that dance majors and minors typically pursue include teaching, dance therapy, choreography, performance, physical therapy, and arts management.

Dance at Muhlenberg is joined with the theatre program to form the Department of Theatre and Dance. The faculty, staff and students in both areas work closely together in the department's performance program which annually features three major dance concerts, four smaller concerts, a musical theatre production, and several plays. In addition, the department sponsors several off-campus touring ensembles in dance. All students, regardless of major, are eligible to participate in the performance program and work on production crews. Students with a serious interest in musical theatre performance can study acting and dance within the department and receive vocal training in the Department of Music.

The Baker Artist-in-Residence Program brings nationally distinguished professional guest artists to Muhlenberg each year to teach and participate in the performance programs of dance, music and theatre. Recent semester-long residencies have included Robert LaFosse, Danny Buraczeski, Doug Varone and Dancers and David Dorfman Dance.

DANCE MAJOR

Eleven course units satisfy the dance major; however, in order to maintain proficiency, it is recommended that dance majors study dance technique throughout their college career.

Required Core Courses:

DNC 101 or 102 Introduction to Dance History

DNC 115 Dance Technique and Performance

DNC 201 Dance History II

DNC 355 Anatomy and Kinesiology for Dancers

DNC 260 Dance Composition

Six 0.5 unit courses in dance technique including one semester of DNC 160 Movement Workshop for Actors and Dancers and one semester of DNC 250 Experiential Anatomy and Somatic Practice

Choose one of the following:

DNC 150 African Dance and Culture
DNC 350 Teaching Dance
DNC 360 Advanced Composition

Two required cognate courses

BIO 102 Concepts of Biology: Biology of Movement **OR**
BIO 200 Human Anatomy & Physiology I
THR 160 Stagecraft: Techniques & Aesthetics

DANCE MINOR

Required Courses:

DNC 101 or 102 Introduction to Dance History
DNC 201 Dance History II

Choose one of the following:

DNC 260 Dance Composition
DNC 355 Anatomy and Kinesiology for Dancers
Six 0.5 unit dance technique courses including one semester of DNC 160 Movement Workshop for Actors and Dancers **OR** one semester of DNC 250 Experiential Anatomy and Somatic Practice **AND** one semester simultaneously enrolling in ballet and modern dance **OR** DNC 115 Dance Technique and Performance

101, 102. Introduction to Dance History

A global survey of dance in various cultural, historical and social contexts. Students will explore how dance communicates human history and experience. Course work includes dance viewing, reading, critical analysis, and movement exploration.

Meets general academic requirement A (and W which applies to 102 only).

115. Dance Technique and Performance

This is the foundation course for first year students considering a dance major or minor. The course is primarily a studio experience focused on exploring the theoretical basis of concert dance via practice of dance technique and performance. Included are investigations of the anatomical and biomechanical principles of movement as well as the cognitive processes of learning and performing dance. Students must be at the intermediate or advanced level in either ballet, modern, or jazz dance.

150. African Dance & Culture

This course is designed to introduce the student to African and African-derived dance forms. The cultural contexts of secular and religious dance forms are emphasized. Students are involved in physical training, the perfection of style, integration of music and dance and an appreciation of the diverse values that are embodied in movement. The course includes lecture, video presentations, discussion, singing, drumming and dancing.

Meets general academic requirement D.

160. Movement Workshop for Dancers & Actors

0.5 course unit

Studio work to expand one's range of expression by crossing borders between dance/theatre/sound. Elements include: Modern Dance, Sound and Movement Improvisation, Contact Improvisation, Body Therapies, Yoga, and Theatre Studies.

201. Dance History II

A lecture/discussion course devoted to the study of 19th and 20th century dance in its social-political and cultural context. Focus on American theatrical dance forms (ballet, modern, jazz) and their origins in French, Russian, German and African societies. Films, video and field trips will be used to supplement class discussion. This is the writing intensive course for dance majors.

Prerequisite: DNC 101 or 102 Introduction to Dance History

Meets general academic requirement W.

260. Dance Composition

Theory and experience in structuring movement from simple phrases to complex organizational units. The student will explore in solo, duet, or group forms various devices and motivations used in creating dances. Reading, writing and critical analysis included.

Prerequisite: DNC 160 Movement Workshop for Dancers & Actors and one of the following: DNC 115 Dance Technique and Performance, or DNC 240 Intermediate Modern Dance, or DNC 340 Advanced Modern Dance

350. Teaching Dance: Theory & Methods

This course introduces various theories of dance/movement education and how they apply in a variety of populations in diverse settings. (Pre-school, K-12, special populations, community crossovers, private studios, and older adults). Course work includes lecture, class discussion, guest speakers, reading, observation, written analysis, peer teaching, and fieldwork.

Prerequisite: ballet and modern dance technique courses

355. Anatomy and Kinesiology for Dancers

This course examines the science of human motion with particular emphasis on the biomechanics of dance. Course content covers the human skeletal system; joint biomechanics relevant to dance; muscle origin, insertion and action; and the role of gravity plays in muscle action. Analysis of physical structure, function, and dynamic alignment as they relate to performance enhancement and injury prevention are investigated.

Prerequisite: BIO 102 Concepts of Biology or BIO 200 Human Anatomy & Physiology I

360. Advanced Dance Composition

Advanced theory and experience in creating dances. Studio work in movement exploration and compositional structure are complemented by films, video, trips to see dance, critical analysis, reading and writing assignments.

Prerequisite: DNC 260 Dance Composition

950-959. Community Performance Ensemble

0.5 course unit

Members of the Community Performance Ensembles in dance and theatre develop, rehearse and tour programs (dance performances, plays and interactive dramatic pieces) for presentation at schools, community centers, and senior citizen residences. In addition to participation in the touring ensemble, students will be expected to submit a journal about their experience in mounting the production and touring to diverse audiences. Audition may be required for participation. May be repeated for credit.

TECHNIQUE COURSES

Dance technique courses meet for three to five hours a week and are worth 0.5 course units. The fine arts (A) general academic requirement designation applies when two dance idioms are completed in the same semester.

Placement at the appropriate level is determined by level of expertise in the dance idiom. Beginning classes are designed for students with very little or no prior experience in the dance form. Intermediate classes are for those with several years of prior training while advanced classes are for those with significant professional training and demonstrated advanced skills. Technique courses at all levels are repeatable for credit.

110. Beginning Ballet

0.5 course unit

Introduction to the fundamentals of classical ballet. Areas covered will include the understanding of correct body placement; positions of the feet, head, and arms, musicality and the development of the elementary habits of movement applicable to the form.

120. Beginning Jazz Dance

0.5 course unit

Introduction to the fundamentals of jazz dance technique. Areas covered include polyrhythms, body isolations, movement analysis, syncopation. Performance of simple dance phrases using fundamental forms.

130. Beginning Jazztap

0.5 course unit

This course will cover the fundamentals of tap dance technique, composition and beginning improvisation. There will be an emphasis on the musical component of jazztap with jazz piano accompaniment and rhythm workshops. Flat tap shoes required.

140. Beginning Modern Dance

0.5 course unit

Introduction to the basic principles of dance movement. Areas covered will include body alignment, coordination, strength and flexibility, and basic forms of locomotion.

210. Intermediate Ballet

0.5 course unit

A continued elaboration of classical ballet technique, through barre and center practice, with emphasis on body placement, flexibility, strength, and the application of these principles to movement. Increased vocabulary, development of performance quality and styles.

211. Accelerated Intermediate Ballet

0.5 course unit

For the advanced intermediate student.

220. Intermediate Jazz Dance

0.5 course unit

A further examination of jazz dance principles of polyrhythms, syncopation, and body isolations with an emphasis on more extended movement phrases and musicality. Focus on clarity of style and presentation.

221. Accelerated Intermediate Jazz Dance

0.5 course unit

For the advanced intermediate student.

230. Intermediate Jazztap

0.5 course unit

Concentration on expanding tap vocabulary, creating choreography and practice on improvisation with live music. The emphasis will be on performance and the development of each student's personal style.

231. Accelerated Intermediate Jazztap

0.5 course unit

For the advanced intermediate student.

240. Intermediate Modern Dance

0.5 course unit

Concentration on specific techniques fundamental to modern dance: mobilizing weight, articulating joints, increasing range, and incorporating strength. Additional attention to movement expression; phrasing, dynamics and rhythm.

120 / Economics

241. Accelerated Intermediate Jazztap

0.5 course unit

For the advanced intermediate student.

250. Experiential Anatomy and Somatic Practice for Dancers

0.5 course unit

This course is designed to provide a studio experience for investigation of applied anatomy and kinesiology with particular emphasis on movement re-patterning. Readings focus on the historical development and practical applications of a variety of somatic practices whose purpose is to change mental and physical action to produce a healthier and more balanced moving body. Studio work emphasizes participation in at least one form of somatic practice and how it enhances study in the traditional dance technique class. Written work investigates the connections between theory, science, and functionality.

310. Advanced Ballet

0.5 course unit

Concentration on specific techniques fundamental to expertise in classical ballet. Increasingly complex combinations at the barre and in center work. Further development of performance technique and personal style in the classical genre. Composition and pointe work included at discretion of instructor.

320. Advanced Jazz Dance

0.5 course unit

Advanced principles of jazz dancing: complex rhythmic, analysis, extended movement phrases, development of individual jazz dance style. Compositional studies in jazz dance.

330. Advanced Jazztap

0.5 course unit

Advanced principles of tap dance including improvisation, choreography, complex rhythmic analysis and development of individual style.

340. Advanced Modern Dance

0.5 course unit

Refinement of technical clarity, performance skills and composition. Musicality, interpretation, learning longer movement sequences.

ECONOMICS (ECN)

Head of Department: Professor Arthur Raymond

Professors: Heitmann, Marshall

Associate Professor: Kish-Goodling

Assistant Professors: Dale, Knox

Visiting Professor: Laposata

Distinguished Visiting Scholar: Walsh

Internship Director: Eisenberg

The economics major provides students with a comprehensive understanding of fundamental principles that underlie the functioning of the market system and the national and international economy, and the analytical and quantitative skills needed for a thoughtful assessment of current economic issues and policies. Additionally, the major prepares students for graduate work in business (MBA) and economics (MA and Ph.D.), and careers with business and government.

The department has a chapter of Omicron Delta Epsilon, the international honor society in economics. It is an institutional member of the Eastern Economic Association, has an active Economics and Business Club, and supervises an endowed, student run Investment Society.

Major Requirements

The economics curriculum balances the academic interests and career intentions of its majors. The program outlined below emphasizes analytical and quantitative skills.

In order to declare and remain a major in good standing, a student must achieve and maintain a cumulative grade point average of at least 2.000 in all courses applicable to the major. An Economics major with a concentration in Finance cannot double major in Business with a concentration in Managerial Finance. Students majoring/minoring in economics cannot take accounting, business or economics courses on a pass-fail basis.

A major in economics must complete 11 courses as outlined below:

Required Courses:

ECN 101 Principles of Macroeconomics
ECN 102 Principles of Microeconomics
ECN 220 or 221 Intermediate Microeconomic Theory
ECN 222 or 223 Intermediate Macroeconomic Theory
ECN 350 or 351 Econometrics **OR**
BUS 333 or 334 Forecasting Models
MTH 144 Introduction to Statistical Analysis (preferably) **OR**
MTH 104 Statistical Methods
MTH 121 Calculus I

Elective Courses (Choose four):

ECN 237 or 238 Corporation Finance
ECN 243 or 244 Health Care Economics
ECN 245 or 246 Environmental Economics
ECN 247 or 248 Economics of Men & Women at Work
ECN 249 or 250 Economics of Natural Resources & Sustainability
ECN 311 or 312 Mathematics for Financial Analysis
ECN 330 or 331 Monetary Economics
ECN 332 or 333 Public Finance
ECN 334 or 335 Trade & Competition in the Global Economy
ECN 336 or 337 Economic Growth & International Development
ECN 338 or 339 Labor Economics
ECN 340 or 341 History of Economic Thought
ECN 342 or 343 Comparative Economic Systems
ECN 344 or 345 Investments & Portfolios
ECN 346 or 347 International Integration & Institutions
ECN 360 or 361 Advanced Topics in Financial Management
ECN 362 or 363 Multinational Financial Management
ECN 365 or 366 Mergers & Acquisitions
ECN 367 or 368 Derivative Markets
ECN 401 Senior Seminar in Economics

122 / Economics

ACT 101 Financial Accounting
HST 325 or 326 American Economic History

Concentrations

In addition to the required courses listed above, students majoring in economics must complete four electives. Although there are no prescribed combinations of electives, the student should choose electives only after close consultation with the faculty advisor. Electives should be chosen with some concentration in mind. Some suggested concentrations follow.

Finance Concentration

ECN 237 or 238 Corporation Finance
ECN 311 or 312 Mathematics for Financial Analysis
ECN 344 or 345 Investments & Portfolios
ECN 360 or 361 Advanced Topics in Financial Management
ECN 362 or 363 Multinational Financial Management
ECN 365 or 366 Mergers & Acquisitions
ECN 367 or 368 Derivative Markets
ACT 101 Financial Accounting

International Concentration

ECN 334 or 335 Trade & Competition in the Global Economy
ECN 336 or 337 Economic Growth & International Development
ECN 342 or 343 Comparative Economic Systems
ECN 346 or 347 International Integration & Institutions
ECN 362 or 363 Multinational Financial Management

Public Policy Concentration

ECN 243 or 244 Health Care Economics
ECN 245 or 246 Environmental Economics
ECN 247 or 248 Economics of Men & Women at Work
ECN 330 or 331 Monetary Economics
ECN 332 or 333 Public Finance
ECN 338 or 339 Labor Economics
ECN 340 or 341 History of Economic Thought
HST 325 or 326 American Economic History

Education Abroad

Besides Muhlenberg's traditional education abroad programs, an international program has been designed especially for students in accounting, business and economics. The program is offered through the Center for European Studies at the University of Maastricht in the Netherlands and would generally be taken during the fall semester of the junior year (but fall semester enrollment during the senior year is possible). In this program, students attend courses in European business, economics, and politics, taught

in English. Besides deepening global and cultural awareness, students have opportunities to travel to France, Belgium, and Germany, all of which are less than thirty minutes away, and meet business and political leaders from those countries.

Participating students take three courses as a cohort; and, additionally, individually enroll in a fourth course selected from the University of Maastricht's regular (English language) course offerings. The three commonly enrolled courses have been approved by the faculty as Muhlenberg courses. These courses are listed below with the department's other regular course offerings. All business or economics courses enrolled by participating students may be used to satisfy major requirements. Early consultation with your faculty advisor is encouraged.

Honors Program

A departmental honors program is available on an application basis to students who establish outstanding academic records in their major field (minimum of 3.500). Interested students should discuss the requirements and rewards of this program with their faculty advisor before the end of their junior year.

Internship Opportunities

The department has an extensive internship program that provides the economics major with a wide range of opportunities to gain valuable work experience. Supervised paid and unpaid internships, which contribute to the Muhlenberg degree, are available during the regular school year. In addition, the department offers assistance in obtaining paid summer internships that may also contribute to the degree.

Writing and Speaking Skills

All majors are encouraged to enhance their communication skills, both oral and written. Majors will be required to enroll a writing intensive course (in addition to the First-Year Seminar) in the major department. Faculty advisors will offer suggestions about specific coursework or other activities.

Minor in Economics

A minor in economics must complete seven courses of work as outlined:

Required Courses:

- ECN 101 Principles of Macroeconomics
- ECN 102 Principles of Microeconomics
- ECN 220 or 221 Intermediate Microeconomic Theory
- ECN 222 or 223 Intermediate Macroeconomic Theory
- MTH 121 Calculus I

Electives (Choose two):

- ECN 243 or 244 Health Care Economics
- ECN 245 or 246 Environmental Economics
- ECN 247 or 248 Economics of Men & Women at Work

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ECN 330 or 331 Monetary Economics
ECN 332 or 333 Public Finance
ECN 334 or 335 Trade & Competition in the Global Economy
ECN 336 or 337 Economic Growth & International Development
ECN 338 or 339 Labor Economics
ECN 340 or 341 History of Economic Thought
ECN 342 or 343 Comparative Economic Systems
ECN 346 or 347 International Integration & Institutions

Students pursuing a minor in economics must choose electives with the close consultation of their advisor. There are some courses not included in the list of electives for the minor that may be deemed appropriate by the student and advisor.

Advice for Economics Majors

1. ECN 101 Principles of Macroeconomics and ECN 102 Principles of Microeconomics can be taken in any order. Both courses may be taken during either the freshman or sophomore years.
2. Students are well advised to enroll in ECN 220 or 221 Intermediate Microeconomic Theory and ECN 222 or 223 Intermediate Macroeconomic Theory before or simultaneous with enrolling in any economics course numbered 300 or greater.
3. MTH 121 Calculus I should be completed during the first year.
4. MTH 144 Introduction to Statistical Analysis **OR** MTH 104 Statistical Methods should be completed during the sophomore year. MTH 144 Introduction to Statistical Analysis is the preferred statistics course.
5. Students should plan to enroll in BUS 333 or 334 Forecasting Models or ECN 350 or 351 Econometrics during the semester following the completion of MTH 144 Introduction to Statistical Analysis or MTH 104 Statistical Methods.
6. Students planning on going on to graduate school in economics or finance are encouraged to take MTH 122 Calculus II, MTH 226 Linear Algebra, MTH 227 Differential Equations, and MTH 223 Calculus III.

101. Principles of Macroeconomics

The fundamental determinants of economic activity, inflation, depression, international finance and development. Monetary, banking and fiscal institutions are considered in relation to their role in contemporary public policies designed to cope with these problems.

Meets general academic requirement B.

102. Principles of Microeconomics

The operation of the price mechanism in modern enterprise economies. Allocation of resources and distribution of income in competitive and monopolistic markets for products, labor, and other resources. Contemporary issues in microeconomic theory and policy are examined.

Meets general academic requirement B.

220, 221. Intermediate Microeconomic Theory

A specialized examination of certain aspects of price analysis such as the consumer, the firm, market structures, price determination and income distribution.

Prerequisite: ECN 102 Principles of Microeconomics and MTH 121 Calculus I

Meets general academic requirement W when offered as 221.

222, 223. Intermediate Macroeconomic Theory

An advanced treatment of the concepts of national income growth and fluctuations in the light of both Keynesian and post-Keynesian income theories.

Prerequisite: ECN 101 Principles of Macroeconomics and ECN 102 Principles of Microeconomics

Meets general academic requirement W when offered as 223.

237, 238. Corporation Finance

This course develops the major propositions of modern financial theory and the guidance that they provide to the corporate financial manager. The focus is primarily, but not exclusively, on two major areas of decision-making: the investment decision and the financing decision. The exposition of these two areas requires that the following topics be covered: Present value, valuation, portfolio theory, the Capital Asset Pricing Model, capital budgeting techniques, the cost of capital, capital structure, leverage, management of working capital, and ratio analysis.

Prerequisite: ACT 101 Financial Accounting and ECN 101 Principles of Macroeconomics and ECN 102 Principles of Microeconomics and MTH 144 Introduction to Statistical Analysis or MTH 104 Statistical Methods

Meets general academic requirement W when offered as 238.

243, 244. Health Care Economics

The purpose of this course is to study the facts, concepts, and analyses necessary to understand national health care. The emphasis of the course will be on the economic arguments for or against alternative public policy initiatives in health care, and public and private health care systems.

Prerequisite: ECN 101 Principles of Macroeconomics or ECN 102 Principles of Microeconomics

Meets general academic requirement W when offered as 244.

245, 246. Environmental Economics

This course explores the relationship between the economy and the environment. Mainstream economic theories and policies will be analyzed from a critical and American policy perspective. The impact of externalities, social costs, property rights, market controls, government regulations and economic development on environmental protection will be analyzed. Other topics covered will include accounting for pollution and resource depletion in GDP statistics, cost-benefit analysis, population, and sustainable development. Offered in the spring semesters of odd numbered years.

Prerequisite: ECN 101 Principles of Macroeconomics or ECN 102 Principles of Microeconomics

Meets general academic requirement W when offered as 246.

247, 248. Economics of Men & Women at Work

An examination and comparison of the behavior and problems of men and women in the economy as workers, consumers, and household members. Economic institutions and outcomes will be analyzed using neoclassical or mainstream economic theories contrasted with newly emerging feminist economic research and theoretical perspectives. Offered in fall semesters of odd numbered years.

Prerequisite: ECN 101 Principles of Macroeconomics or ECN 102 Principles of Microeconomics

Meets general academic requirement W when offered as 248.

249, 250. Economics of Natural Resources & Sustainability

The application of economic principles to the allocation and use of renewable and nonrenewable natural resources and the study of the environmental integrity of economic development. More than one-half of the course is devoted to the development of the economic principles used to (1) study natural resource use and allocation and (2) understand the economic and political systems in which natural resource decisions are

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made. The remainder of the course applies these principles to specific natural resources, including population, minerals, energy, forest products, water, wildlife, and biodiversity.

Prerequisites: ECN 101 Principles of Macroeconomics or ECN 102 Principles of Microeconomics

Meets general academic requirement W when offered as 250.

311, 312. Mathematics for Financial Analysis

The study and application of the mathematical tools needed for financial decision-making. The mathematics is developed in a rigorous way but the emphasis is on the economic rationale underlying the concepts covered and the application of those concepts. The course begins with a discussion of present value theory. From this the following topics are developed in detail: future value, growth rates, annuities in arrears and in advance, corporate bond valuation, the extinction of debt by amortization, conventional mortgages and recent innovations in the mortgage market, sinking funds, deferred annuities, perpetuities, and the effects of compounding and effective annual interest rates.

Prerequisite: ECN 237 or 238 Corporation Finance and ACT 101 Financial Accounting and MTH 144 Introduction to Statistical Analysis or MTH 104 Statistical Methods

Meets general academic requirement W when offered as 312.

330, 331. Monetary Economics

A course intended to examine the nature and functions of money and the factors determining its exchange value. Emphasis is placed on the structure of the financial system and the effect of monetary policies in light of Keynesian and Post Keynesian developments. Offered in the fall semesters of even numbered years.

Prerequisite: ECN 222 or 223 Intermediate Macroeconomic Theory

Meets general academic requirement W when offered as 331.

332, 333. Public Finance

Analysis of government's role in a mixed economy. Principles of government expenditure and taxation; structure of the U.S. tax system, with emphasis on tax incidence and the effect of tax and spending policies on economic efficiency. The effects of the public debt and deficit are analyzed. Offered in the spring semesters of even numbered years.

Prerequisite: ECN 220 or 221 Intermediate Microeconomic Theory

Meets general academic requirement W when offered as 333.

334, 335. Trade & Competition in the Global Economy

The once dominant model of free trade no longer goes unchallenged. Managed trade is proposed as essential for maintaining U.S. competitiveness and a "level playing field." Protection of U.S. jobs is urged as an imperative of government policy. This course examines the benefits and costs of trade, its impact on the environment, and the role of government in promoting trade and competitiveness.

Prerequisite: ECN 101 Principles of Macroeconomics and ECN 102 Principles of Microeconomics. ECN 220 or 221 Intermediate Microeconomic Theory and ECN 222 or 223 Intermediate Macroeconomic Theory are also recommended.

Meets general academic requirement W when offered as 335.

336, 337. Economic Growth & International Development

The course begins with an introduction of the concept and measurement of economic growth and development. Models of growth and development processes are then analyzed. Problems in areas such as population, education, savings and capital formation, natural resources, foreign trade, foreign aid, etc. are examined and possible policy measures are explored.

Prerequisite: ECN 101 Principles of Macroeconomics and ECN 102 Principles of Microeconomics.

Meets general academic requirement W when offered as 337.

338, 339. Labor Economics

Labor market analysis both in micro as well as in macro contexts. In microanalysis, subjects such as wage determination, wage differentials, labor mobility, etc. will be discussed. The macroanalysis covers, among other topics, the following: relationship between wages, prices, and employment; general unemployment and its cures; labor productivity; labor share in national income.

Prerequisite: ECN 101 Principles of Macroeconomics and ECN 102 Principles of Microeconomics. ECN 220 or 221 Intermediate Microeconomic Theory and ECN 222 or 223 Intermediate Macroeconomic Theory are also recommended.

Meets general academic requirement W when offered as 339.

340, 341. History of Economic Thought

This course traces the development of systematic economic reasoning from the pre-Mercantilist period to modern times. Attention is given to the influence of changing economic conditions and institutions on the progress of economic thought. The seminal ideas of Smith, Malthus, Ricardo, Marx, Walras, Marshall, Keynes and others are examined. The schools of economic thinking that grew out of the work of these major contributors are studied, including Classical, Marginalist, Neo-Classical, Institutional, Keynesian and Radical economics. The evolution of mainstream economics from its early beginnings as laissez-faire political economy to its contemporary scientific approach is considered. The role of scientific methodology in economic inquiry is examined. The historical roots of current economic issues and debates are studied.

Prerequisite: ECN 220 or 221 Intermediate Microeconomic Theory and ECN 222 or 223 Intermediate Macroeconomic Theory

Meets general academic requirement W when offered as 341.

342, 343. Comparative Economic Systems

A comparative study of alternative forms of economic organization with particular emphasis upon resource allocation pricing and planning under socialism.

Prerequisite: ECN 101 Principles of Macroeconomics and ECN 102 Principles of Microeconomics. ECN 220 or 221 Intermediate Microeconomic Theory and ECN 222 or 223 Intermediate Macroeconomic Theory are also recommended.

Meets general academic requirement W when offered as 343.

344, 345. Investments & Portfolios

The study of the basic structure, social function, and performance of security markets. Topics covered include the theory of interest-rate determination, bond and stock valuation from the technical, fundamental and efficient-market perspectives, portfolio and capital market theory, and violations of the efficient-market hypothesis.

Prerequisite: ECN 237 or 238 Corporation Finance

Meets general academic requirement W when offered as 345

346, 347. International Integration & Institutions

The study of the basic theory of economic and monetary integration. The course will analyze the joint commercial and monetary policies of nations pursuing international integration. Case studies will alternate yearly between an emphasis on the European Union and the North American Free Trade Agreement (NAFTA). European issues include the effect of trade liberalization among the Union countries, the European Monetary System, the Common Agricultural Policy and the "one-money issue." NAFTA issues include the economic effects on labor and agriculture, capital-flight, and immigration.

Prerequisite: ECN 334 or 335 Trade & Competition in the Global Community

Meets general academic requirement W when offered as 347.

348, 349 Industrial Organization and Strategic Behavior

This course will introduce the student to game theory and its applications in describing the behavior of firms and individuals. We shall examine market structure and its effect on firm behavior, and apply modern analytic techniques to develop a thorough understanding of strategic decisions.

Prerequisite: ECN 220 or 221 Intermediate Microeconomic Theory or permission of instructor

Meets general academic requirement W when offered as 349.

350, 351. Econometrics

The use of statistical techniques to estimate structural relationships in economics and finance. The basic statistical model employed is the ordinary least squares model in its bivariate and multi-variate form. Tests and corrections for violations of the assumptions of the ordinary least squares model will be developed. Non-structural forecasting models will also be discussed. Students will be required to use an econometrics computer program.

Prerequisite: ECN 220 or 221 Intermediate Microeconomic Theory or ECN 222 or 223 Intermediate Macroeconomic Theory and MTH 121 Calculus I and MTH 144 Introduction to Statistical Analysis or MTH 104 Statistical Methods

Meets general academic requirement W when offered as 351.

360, 361. Advanced Topics in Financial Management

The practical aspects of financial management are stressed. The course is a blend of applications, case studies and theory. Topics include: the bond refunding question, capital budgeting under conditions of uncertainty, the theory of capital structure, dividend policy, leasing, mergers and corporate restructuring, bankruptcy, pension funding, and international financial management.

Prerequisite: ECN 237 or 238 Corporation Finance

Meets general academic requirement W when offered as 361.

362, 363. Multinational Financial Management

This course will address those issues of concern to firms whose operations cross national boundaries. These will include: management of foreign exchange risk; raising funds in global capital markets; international portfolio diversification; and, capital budgeting in an international setting.

Prerequisite: ECN 237 or 238 Corporation Finance

Meets general academic requirement W when offered as 363.

365, 366. Mergers & Acquisition

A seminar course covering selected financial topics focusing on acquisition, mergers, and business combinations facing senior business managers. The course will review and build upon materials presented in prior courses. Numerous readings, class discussion, presentations and case analyses will be required.

Prerequisite: ECN 237 or 238 Corporation Finance

Meets general academic requirement W when offered as 366.

367, 368. Derivative Markets

This course will explore the economic rationale for and benefits of the derivative markets. Coverage will include stock options, commodity, financial and foreign exchange futures, as well as the investment strategies that make use of these instruments. The roles of hedgers, speculators and arbitrageurs will be examined, along with risk management, portfolio insurance, program trading, the regulatory setting and other related topics. Special emphasis will be given to issues of interest to the corporate financial manager.

Prerequisite: ECN 237 or 238 Corporation Finance

Meets general academic requirement W when offered as 368.

401. Senior Seminar in Economics

Advanced study of selected topics, issues, or literature in the field. Designed to serve as a senior level integrating experience.

Prerequisite: instructor permission

960. Economics Internship

Under faculty supervision, students will be placed in internship positions with local business and other related organizations in order to gain experience in the application of the theories and concepts learned in the classroom. Students will be required to document their experiences in a written journal, to share their experiences with others in a classroom setting, and to prepare a significant term paper or project report. Open to juniors and seniors only. Pass-fail only.

Maastricht Education Abroad Program (MEA)

The following courses are offered through the Center for European Studies for students participating in the Maastricht education abroad program.

261. European Economic Integration

An outline of the effects of European integration on the economy and the main changes in the institutional and economic environment of business. In addition, an introduction to the economic analysis of trade policy measures using traditional and modern theories will be given.

265. International Management and Business Policy

Introduction to the strategic management of international and multinational firms. Enterprise strategies with respect to the choice of geographic markets, modes of market entry, ownership policy, and sourcing will be discussed.

267. Global Marketing Strategy

This course is designed to provide an understanding of marketing strategy from an international, multinational, or global point of view.

EDUCATION (EDU)

Head of Department: Professor Michael J. Carbone

Associate Professor: Rosenberg

Assistant Professor: Shive

Instructor: Milligan

Instructor and Coordinator of Professional Programs: Kim

Director of Student Teaching Programs and Lecturer: Byrne

Director of Fieldwork Programs and Instructor: Richwine

Coordinator of Professional Development Schools Project: Bonekemper

Student Teacher Supervisors: McClain, Strelecki, Szabo

Certification Requirements

Muhlenberg College provides programs leading to certification for teaching in secondary and elementary schools. In both cases, the student is required to complete a subject major in addition to the requirements of the certification program. The College's teacher certification programs are approved by the Pennsylvania Department of Education. Our current pass rate on the PRAXIS examinations required by Pennsylvania, and many other states, are shown on Appendix A on page 263.

Muhlenberg offers programs leading to secondary school teaching certification in biology, chemistry, English, French, German, Spanish, mathematics, physics, citizenship, social studies, and Environmental Studies. Details regarding specific requirements are available from the Department of Education. Students in these programs have at least two faculty advisors: a member of the department offering the

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subject major and a member of the Department of Education. The Department of Education sets standards for and supervises all pre-professional aspects of the program. Its policies are clearly outlined in the *Education Department Handbook*, published every year. **All students are responsible for familiarizing themselves with this document and following its procedures and guidelines.**

The aim of the department is to provide a curriculum leading to teacher certification and professional competence. In order that the student may pursue this program in the best possible sequence and meet the Pennsylvania certification requirements, it is important that he or she have a personal conference with an advisor in the Department of Education early in the first semester; otherwise, there may be some difficulty in completing either certification program within eight semesters. Students wishing to take courses beyond EDU 101 Foundations of Education must apply for provisional admission to the teacher certification program.

In order to be formally admitted and continue in the teacher certification program applicants must have a 3.000 cumulative grade point average. Formal admission to the teacher certification program also requires the completion of 12 course units, two of which must be college level mathematics courses and one of which must be either an American or British literature course. As well, the student must pass the first three pre-professional tests on the state required PRAXIS exam by the end of the sophomore year. Prior to formal admission to the teacher certification program a student may be provisionally admitted to the program as early as the first year. In addition to the overall GPA of 3.000, admission to student teaching requires a 2.500 grade point average in the major* and a 2.750 grade point average in all education courses.

* *Students with a major in language must have a 3.000 grade point average in the major for admission to professional semester.*

Please note that most requirements for teacher certification are set by the Pennsylvania Department of Education and are subject to change.

Elementary Education Certification Program

The following are the requirements for elementary certification:

Cognate Courses:

- Two college level mathematics courses
- A biology course and a physical science course
- A fine arts course, THR 190 Foundations of the Creative Arts
- A literature course, either British or American
- An American history course
- PED 100 Foundations of Exercise Science and Wellness
- A geography course, GEO 101 World Geography

A course with an economics perspective. The requirements for studies in economics can be met by completing courses in other disciplines which include this perspective. For example, a student can take an American history course with an economics perspective, an environmental studies course with an economics perspective, or a geography course with an economics perspective.

A course with an environmental studies perspective. The requirement for environmental studies can be met by completing courses in other disciplines which include this perspective. For example, a student can take a biology course or physical science course with an environmental perspective or an economics or philosophy course with an environmental perspective.

Courses in Elementary Education (12 course units):

EDU 101 Foundations of Education
EDU 102 or 103 Educational Psychology
EDU 200 Teaching & Learning
EDU 201 Exceptional Learner
EDU 326 Literacy in the Primary Grades
EDU 327 or 328 Middle Grades Literacy & Social Studies Curriculum
EDU 355 The Mathematics Curriculum
EDU 356 Elementary Science Curriculum
EDU 410 Assessment & Evaluation
EDU 420 Studies in Professional Education
EDU 950 Student Teaching I
EDU 951 Student Teaching II

Secondary Education Certification Program

Cognate Courses:

Two college level mathematics courses
A literature course, either British or American

Courses in Secondary Education (9 course units):

EDU 101 Foundations of Education
EDU 102 or 103 Educational Psychology
EDU 200 Teaching & Learning
EDU 201 Exceptional Learner
EDU 360 The Secondary School Curriculum
EDU 410 Assessment & Evaluation
EDU 420 Studies in Professional Education
EDU 950 Student Teaching I
EDU 951 Student Teaching II

Students enrolled in the teacher certification program will receive priority placement in courses that are part of the program. The department expects all pre-service teacher candidates to exhibit professional behavior in all education course and field settings. Students who fail to complete the required field work hours for any education course

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will be subject to a grade reduction. The department requires students to student teach through Muhlenberg College in order to be certified by Muhlenberg College. Additionally, the Department of Education may not accept for transfer education courses from other institutions which do not include an appropriate field work component.

Fees

A **non-refundable** fee of \$35 will be charged for each semester in which a student is enrolled in a course or courses requiring fieldwork. Students enrolling in EDU 950 Student Teaching I, EDU 951 Student Teaching II will pay a special fee of \$325. This \$325 fee is **non-refundable** and due when the student applies for student teaching in January of the junior year.

Note: This applies to Psychology majors only

Students who are accepted into the Teacher Education certification program may count EDU 201 Exceptional Learner to satisfy one of the courses in the Advanced Course and Seminar requirement, and they may count EDU 102 or 103 Educational Psychology as an elective in the Psychology major. Admission to student teaching requires a 2.500 grade point average in the psychology major.

101. Foundations of Education

A critical examination of education, how American education has been institutionalized, and how society's agenda is formulated and translated by schools. Historical, sociological and philosophical concepts will be used to understand conflicting educational policy aims of various societal groups. The purpose of the course is to develop one's potential for thinking critically and evaluatively about American education and its institutions in preparation for ethical educational leadership and citizenship.

Meets general academic requirement B.

102, 103. Educational Psychology

This course reflects knowledge derived from theory, research, and professional practice as it covers cognitive, social, and personal development and the psychology of teaching and learning. We will use our classroom as an "experiment" in methods of teaching, learning and educating ourselves about the sociopolitical contexts for development and learning in American classrooms. Students are required to complete a minimum of 20 hours of fieldwork in a public school setting.

Prerequisite: EDU 101 Foundations of Education and preliminary admission to the teacher certification program

Meets general academic requirement W when offered as 103.

200. Teaching & Learning

This course focuses on understanding the roles of research, theory and structured observation in classroom teaching and on the acquisition of basic teaching skills including the planning and implementation of instruction and the management of classroom activities. Students are introduced to a broad range of teaching methodologies and classroom management strategies. They use state and district standards to plan, teach and revise lessons in their content areas and will design an instructional unit outline. Additionally, students will explore the impact of technology on teaching and learning. Students will participate in peer teaching and a minimum of 20 hours of fieldwork.

Prerequisite: EDU 101 Foundations of Education and EDU 102 or 103 Educational Psychology

201. The Exceptional Learner

This course is designed to broaden the pre-service teacher's knowledge and understanding of students with disabilities. The students will be introduced to exceptionalities including health impairments, mental retardation, learning disabilities, ADHD, emotional disturbance, autism, sensory impairments, physical disabilities and giftedness. These topics will be examined from the perspective of causation, diagnosis, cognitive and social-emotional characteristics, learning styles, and programming needs with a focus on meeting the exceptional learner's needs in the context of the regular classroom. Fieldwork required.

Prerequisite: PSY 101 Introductory Psychology or admission to the teacher certification program

Meets general academic requirement B and fulfills the second academic B requirement for students in the teacher education program.

326. Literacy in Primary Grades

This course provides an understanding of literacy development in elementary grades K-3. First phase of the course presents learning and language development theories and instructional frameworks that contextualize literacy instruction including constructivism, whole language, balanced literacy program, guided reading, language systems, oral language development, and emergent literacy perspective. Processes of early reading and writing including phonemic awareness and phonics, decoding and fluency, comprehension, and developmental spelling are presented during the second phase of the course. Introduction to children's literature including award-winning books and authors, genres, and the role of literature in literacy instruction is integrated throughout the course. Special attention is given to the Pennsylvania Academic Standards in Reading, Writing, Speaking, and Listening and their relationships to both national and local district standards and reading programs. Fieldwork is required.

Prerequisite: EDU 200 Teaching & Learning

Meets general academic requirement W.

327, 328. Middle Grades Literacy & Social Studies Curriculum

This course presents integrated approaches to teaching literacy and social studies in the elementary grades. Emphasis is on literacy development in grades 3-6, particularly on construction of meaning during reading and writing processes. Topics of study range from reader response theories, reading comprehension, the conventions of language, assessment and evaluation, curriculum and standards, to various instructional approaches. Concurrently, social studies as an area of study in the elementary grades is presented. Theoretical and practical perspectives are included in the examination and development of curriculum and pedagogical strategies. The integrated nature of this course enables the student to apply and explore literacy issues in the context of social studies topics and concepts, specifically through the discussion of children's literature. Exploration of national, state, and local academic standards continue in both literacy and social studies. Fieldwork is required.

Prerequisite: EDU 326 Literacy in the Primary Grades

Meets general academic requirement W when offered as 328.

355. The Mathematics Curriculum

This course will analyze the content, pedagogy and management of the mathematics curriculum in the elementary school. Emphasis will be placed on how children learn mathematics, problem solving, discourse, and standards-based instruction. Fieldwork will be required.

Prerequisite: EDU 200 Teaching & Learning

356. Elementary Science Curriculum

This course will enable the student to develop a professional practice as a science educator based on the best current knowledge about how children learn science, the nature of science, and state-of-the-art methods of science teaching. Emphasis will be placed on developing inquiry-oriented pedagogical strategies, creating curriculum, hands-on experiences, and using assessment in the service of instruction. Fieldwork will be required.

Prerequisite: EDU 200 Teaching & Learning

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360. The Secondary School Curriculum

This course will focus on studies in teaching the secondary curriculum as appropriate to the following certification areas: English, foreign languages, mathematics, science, environmental studies, and social studies. In addition, studies in the reading and communication skills essential for effective content acquisition by secondary school students will be covered. Fieldwork is required.

Prerequisite: EDU 200 Teaching & Learning

410. Assessment & Evaluation

This course is designed to give the prospective elementary/secondary teacher an overview of assessment/evaluation issues, techniques and practices. Students will be examining topics of standardized testing, teacher made tests, alternative/authentic assessment techniques, grading practices, and parent conferences. Also, students will be introduced to ways in which technology can be integrated into the assessment and evaluation process. Throughout the course, students will be encouraged to think critically about the issues surrounding assessment, within the context of educational practice and political reality.

Prerequisite: admission to professional semester

420. Studies in Professional Education

As part of the professional semester program, this course will provide studies and experiences in issues connected with teacher professionalism, structure of the educational system, school law, professional ethics, and school/community relations.

Prerequisite: admission to professional semester

950 & 951 Student Teaching I & II

Student teaching is the core component of the professional semester. This experience will provide the preservice teacher with the opportunity to apply the knowledge and skills gained in his/her academic preparation to actual classroom situations. The student teacher will receive meaningful feedback and guidance from the cooperating teacher and college supervisor with respect to planning and preparation, classroom management, discipline and lesson implementation. This semester consists of two full-time teaching experiences in grade levels appropriate to the area of certification. Students will attend daily seminars prior to student teaching and weekly seminars during student teaching. Additionally, college supervisors will observe student teachers in the field on a weekly basis. Students must enroll for both EDU 950: Student Teaching I and EDU 951: Student Teaching II during the professional semester.

Prerequisite: admission to the professional semester

970. Education Independent Study/Research

ENGLISH (ENG)

Head of Department: Professor James Bloom

Professors: Cartelli, Rosenwasser, Scott, Stephen

Associate Professors: Coppa, Gold, Lawlor, Marsh, Miller

The major program in English stresses writing skills and the critical analysis of literary works. The approach is largely—but not exclusively—historical, so that majors will come to understand the ways in which language works to construct as well as reflect cultures. Though the program primarily focuses on American and British works and writers, majors will have opportunities to study other literatures and will be encouraged to do so. The compositional and analytic skills required to complete this major, along with the historical and cultural perspectives that literary study fosters, will help prepare students for a wide range of careers. Careers that English majors

characteristically pursue include law, teaching, journalism and publishing, sales and marketing, advertising and public relations, management and administration, public service, religion, and research. The program in English is also designed to serve students in their efforts to become attentive and articulate citizens.

Major Requirements

English majors must complete a minimum of nine courses in the department.

Required Courses:

ENG 275 Theory and Methods of English Studies

At least *two* courses treating works written prior to 1800 (only one of which can be ENG 319 Shakespeare I or ENG 321 Shakespeare II)

ENG 313 or 314 Medieval Literature

ENG 315 or 316 The Renaissance Imagination

ENG 317 or 318 Lyric Traditions: Beginnings to 1800

ENG 319 Shakespeare I

ENG 321 Shakespeare II

ENG 323 or 324 Renaissance Plays in Process

ENG 325 or 326 Milton & the Age of Revolution

ENG 327 or 328 The Eighteenth Century

At least *one* course in nineteenth century literature

ENG 329 or 330 Nineteenth Century British Fiction

ENG 331 or 333 English Romanticism

ENG 334 or 335 Victorian Literature & Culture

ENG 336 or 337 Nationalism, Romanticism, & American Literature

ENG 338 or 339 City, Frontier, & Empire in American Literature

Four electives (only *one* course numbered between 200 and 299; only *one* course in creative or nonfiction writing)

ENG 500-549 Senior Seminar in English

ENG 275 Theory and Methods of English Studies should be completed early in the major sequence.

All majors must maintain a 2.000 grade point average in English courses to remain a major in the department. A 3.000 grade point average in the major is expected of those who desire unconditional recommendations for graduate schools or for teaching positions. Students who are planning to attend graduate school in English would do well to enroll several courses in excess of the minimum course requirement for majors, and should seek the advice of their faculty advisor as early in their undergraduate career as possible.

Minor Requirements

English minors must complete a minimum of five courses in the department.

Required Courses:

ENG 275 Theory and Methods of English Studies

At least *one* course treating works written prior to 1800

At least *one* course in nineteenth century literature

Two electives (only *one* course numbered between 200 and 299 and *one* course in creative or nonfiction writing are allowable within 5 course minimum)

General Academic Requirements

Students specifically seeking literature courses designed for the non-major may wish to limit their choice to the following: ENG 213 British Writers; ENG 215 American Writers; ENG 220 World Literature I; ENG 222 World Literature II; ENG 233 or 234 Women Writers; ENG 240 or 241 The Nature of Narrative; ENG 245 or 246 Poetry & the Imaginative Process; ENG 255 Literature & Film; ENG 260 Literature & the Environment; ENG 265 or 266 Literature & Science; ENG 267 or 268 Literature & Sexuality; and ENG 269 or 270 Literature & Mass Media.

Honors Program

The honors program in English is specifically designed for English majors who are either seriously considering doing graduate work in English or have a comparable motivation and commitment to literary studies necessary to sustain their participation in the program. Students who are interested in the English honors program should direct their questions to Dr. Alec Marsh or their advisor.

Requirements for Admission to Honors Program:

1. A grade point of average of 3.000 or higher in English courses.
2. Demonstrated capacity for sustained intellectual effort and independent study, and an extra-scholastic interest in literary studies.
3. A formal letter of application explaining why the student wants to participate in the honors program, what course of study the student plans to pursue, and how the student plans to carry out these plans. Copies of the letter must be sent to the faculty advisor, the head of the department, and the chair of the departmental honors committee by April 15 of the junior year.

Honors Program Requirements:

An Honors student will complete a minimum of 11 courses in the Department of English.

1. Two semesters of independent study in the senior year devoted to the development and completion of the honors thesis. The honors student will work under the supervision of two or three English faculty advisors.

2. The submission of a plan or prospectus of the honors thesis by November 15 of the senior year. This submission must be approved by the student's committee before the student may proceed.
3. An oral presentation to fellow English majors and English department faculty on the subject of the honors thesis within the first eight weeks of the spring semester.
4. The completion of a thesis of at least 40 pages, a copy of which must be submitted to each of the student's faculty advisors by April 15 of the senior year.
5. A concluding conversation with the student's thesis committee to discuss and evaluate the student's work.

The honors committee, in consultation with the student's thesis committee, will make a recommendation on the degree of honors to be awarded (none, honors, high, or highest).

Teacher Certification

Students seeking certification for the teaching of English in secondary schools are required to take the following nine courses in fulfillment of their English major. A student who chooses ENG 336 or 337 Nationalism, Romanticism, & American Literature or ENG 338 or 339 City, Frontier, & Empire in American Literature to fulfill both the nineteenth century and American literature requirement may enroll for any other course numbered 300 or greater to fulfill the nine course minimum.

ENG 275 Theory and Methods of English Studies

One elective in American literature drawn from: ENG 215, ENG 336 or 337, ENG 338 or 339, ENG 349 or 350, ENG 357, ENG 358 or 359; ENG 360 or 361.

One course in 19th century literature drawn from: ENG 329 or 330, ENG 331 or 333, ENG 334 or 335, ENG 336 or 337, ENG 338 or 339.

ENG 203 Nonfiction Writing

ENG 319 **or** 321 Shakespeare I **or** II

One additional pre-1800 course drawn from: ENG 313 or 314, ENG 315 or 316, ENG 317 or 318, ENG 323 or 324, ENG 325 or 326, ENG 327.

One course in a literature other than British or American: ENG 220, ENG 222, ENG 340 or 341, ENG 343 or 344, ENG 375 or 376, **or** a literature course offered by the Department of Foreign Languages.

ENG 311 or 312 The English Language

ENG 500-549 Senior Seminar in English

Writing Concentration

English majors may opt for a concentration in writing. The writing concentration is specifically designed for majors who are interested in writing poetry, plays, scripts, fiction or nonfiction and who are considering a career in editing, publishing, journalism, or graduate work in writing. Students should direct their questions to the head of the department or the writing concentration advisors.

Requirements for Admission to the Writing Concentration

1. Satisfactory completion of ENG 201 Poetry & Fiction Writing **OR** ENG 203 Nonfiction Writing.
2. Admission into ENG 303 Nonfiction Workshop, ENG 305 Fiction Workshop, ENG 307 Playwriting Workshop, ENG 309 Poetry Workshop or an appropriate tutorial.

Writing Concentration Requirements

ENG 201 Poetry & Fiction Writing

ENG 203 Nonfiction Writing

A writing workshop (ENG 303 Nonfiction Workshop, ENG 305 Fiction Workshop, ENG 307 Playwriting Workshop or ENG 309 Poetry Workshop)

One elective chosen from the following:

ENG 303 Nonfiction Workshop

ENG 305 Fiction Workshop

ENG 307 Playwriting Workshop

ENG 309 Poetry Workshop

ENG 371 Living Writers

ENG 373 or 374 The Literary Marketplace

A writing tutorial (ENG 903 Nonfiction Tutorial, ENG 905 Fiction Tutorial, ENG 907 Playwriting Tutorial or ENG 909 Poetry Tutorial)

ENG 450-459 Topics in Writing and Publishing

ENG 960 English Internship

Honors in Writing

Students interested in honors in writing should apply to the writing concentration advisors no later than the second semester of their junior year. In addition to the writing concentration, Honors students in writing must enroll a writing tutorial, complete a portfolio, and give a public reading.

The honors committee, in consultation with the writing concentration advisors, will make a recommendation on the degree of honors to be awarded (none, honors, high, or highest).

INTRODUCTORY WRITING COURSES

201. Poetry & Fiction Writing

An introductory course in the craft of short story and poetry writing. This course will focus on issues of craft and form: the sentence, the line, character, voice, point-of-view, imagery, action, conflict and resolution. Students will read both published stories and poems and each other's work. The emphasis of the course, however, will be on student writing and will lead to a final portfolio.

Meets general academic requirement A.

203. Nonfiction Writing

This course begins with a review of the analytical essay. The majority of the course, however, focuses on the literary essay. Students will spend an equal amount of time writing and reading essays, and class discussions will center on craft and rhetorical issues, such as syntax, tone, and argumentation.

Meets general academic requirement W.

FIRST COURSE FOR MAJORS AND MINORS

275. Theory and Methods of English Studies

Close readings of a range of works in a variety of genres in an effort to arrive at working definitions of *literature* and *literary* and introduction to the practices, assumptions, and goals that differentiate English Studies from other approaches to texts. Questions addressed include: How do we distinguish *literary* work from other forms of writing? How does literary language differ from other kinds of speaking and writing? To what extent does the concept of *the literary* favor difficulty and complexity over simplicity? How do specific forms, genres, and critical practices develop over time?

Meets general academic requirement L and W.

GENERAL LITERATURE

213. British Writers

A concentrated survey of the work of some of the most influential British writers, and of the development of British literary traditions, intended to help non-majors become close and informed readers of literature. Focus will vary from semester to semester.

Meets general academic requirement L.

215. American Writers

A concentrated survey of the work of some of the most influential American writers, and of the development of American literary traditions, intended to help non-majors become close and informed readers of literature. Focus will vary from semester to semester.

Meets general academic requirement L.

220. World Literature I

A chronological survey of selected literary works of international stature and significance with emphasis on the emergence and development of major literary forms.

Meets general academic requirement L.

222. World Literature II

A chronological survey of selected literary works of international stature and significance from the sixteenth century to the present.

Meets general academic requirement L.

233, 234. Women Writers

An introduction to women's writing in English and feminist literary perspectives that highlights the circumstances differentiating women's and men's writing and the recovery of once-neglected women's writing in relation to more familiar work by writers such as Austen, the Brontes, Dickinson, Cather, and Virginia Woolf.

Meets general academic requirement L (and W which applies to 234 only).

FORMS AND GENRES

240, 241. The Nature of Narrative

This course will explore the forms and functions of primarily prose narratives, with particular attention to structure, point of view, and narrative conventions of time, space, plot, character, and "realism". Different versions of the course will vary in focus and emphasis: some may survey a variety of forms and genres

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(short story, novel, memoir, autobiography), while others may concentrate on one or two of these. Alternate years.

Meets general academic requirement L (and W which applies to 241 only).

245, 246. Poetry & the Imaginative Process

What is poetry? How is it made or constructed? Is it the product of sudden inspiration or of something more mundane? This course will address such questions by examining the work of poets who, in addition to their poems, have left behind letters, journals, and notebooks that allow us to reconstruct the processes through which their poems develop and progress to completion. Students will be encouraged to write, and chart the development of, their own poems in process. Alternate years.

Meets general academic requirement L (and W which applies to 246 only).

TEXTS AND CONTEXTS

255. Literature & Film

This course examines the relationship between novels and plays and their film-adaptations, concentrating on the different ways we read and interpret these narrative forms. The course will attend closely to the variety of decisions that inform the translation of literary works into a different medium with different conventions for a different audience. Emphases and subject matter will change from year to year and instructor to instructor.

Meets general academic requirement L.

260. Literature & the Environment

An examination of complex relationships between the various meanings of what we call “nature” and the representations of such concepts in literary writing and other kinds of texts that raise environmental question. A field work component will require students to survey nearby landscapes and to “read” their historical transformations.

Meets general academic requirement L.

265, 266. Literature & Science

Considers the mutual influence of science and literature with emphasis on the development of modes of thought across disciplinary lines. The specific focus of each term will be defined by scientific, historical, and/or generic concerns. Some possible emphases include medicine, modern physics, evolution, gender-construction, and technology.

Meets general academic requirement L (and W which applies to 266 only).

267, 268. Literature & Sexuality

An exploration of the way literature reflects and shapes understandings, attitudes toward and representations of sexual identities and practices.

Meets general academic requirement L (and W which applies to 268 only).

269, 270. Literature & Mass Media

A study of the relationship between literary writing, which represents a small proportion of all the writing we routinely encounter (scripted TV and movie narratives, news reports, advertising, memos, etc), and of the implications of this relationship for both the producers (writers) and consumers (readers) of literature. Alternate years.

Meets general academic requirement L (and W which applies to 270 only).

ADVANCED COURSES

303. Nonfiction Workshop

An intensive course in the craft of the essay. Writers will comment on each other’s work in a workshop setting. Issues of linguistic theory, the tradition of the essay from Montaigne to the present, and the

conventions of journalism will inform our discussions. We will focus on the memoir, the review, travel essay, the prose meditation, and the literary essay. The course will culminate in a public reading and submission of a portfolio.

Prerequisite: ENG 203 Nonfiction Writing and instructor permission

Meets general academic requirement W.

305. Fiction Workshop

An intensive course in the craft of the short story. Fiction writers will comment on each other's work in a workshop setting. Issues of linguistic theory, the literary tradition and aesthetics will inform our discussions. The course will culminate in a public reading and submission of a portfolio.

Prerequisite: ENG 201 Poetry & Fiction Writing and instructor permission

Meets general academic requirement A.

307. Playwriting Workshop

An intensive course in the craft of playwriting in which writers comment on each other's work, focusing on the elements and structure of a play (character, action, spectacle, diction, "music" and thought); dramatic forms and conventions (monologue, farce, melodrama, comedy, tragedy), selected published plays, and attending theatrical performances all culminating in staged readings of selected student work and submission of a portfolio.

Prerequisite: ENG 201 Poetry & Fiction Writing or THR 250 Acting I: Process and instructor permission

Meets general academic requirement A.

309. Poetry Workshop

An intensive course in the craft of poetry. Poets will comment on each other's work in a workshop setting. The problem of poetic form and its relation to the tradition, the issue of the self and self expression will be explored in terms of linguistic theory, the poetic tradition, and poetics. The course will culminate in a public reading and submission of a portfolio.

Prerequisite: ENG 201 Poetry & Fiction Writing and instructor permission

Meets general academic requirement A.

311, 312. The English Language

This course will provide students with a general understanding of the nature and function of language in American society, with special emphasis on language instruction in the secondary school classroom. It will be structured as a seminar that features group discussion of assigned readings.

Meets general academic requirement W when offered as 312.

STUDIES IN MEDIEVAL AND EARLY MODERN LITERATURES

313, 314. Medieval Literature

A broad-based study of the literature of the European Middle Ages. Readings will include selections from the romances of Chretien de Troyes, the *lais* of Marie de France, Dante's *Inferno*, Boccaccio's *Decameron*, *Sir Gawain and the Green Knight*, one of Chaucer's dream-visions and a representative sampling of his *Canterbury Tales*. Alternate years.

Meets general academic requirement L (and W which applies to 314 only).

315, 316. The Renaissance Imagination

A study of the writing and other popular art forms of Renaissance England, with attention to the newly articulated stress on self and the emergence of Tudor England as a world power. Alternate years.

Meets general academic requirement L (and W which applies to 316 only).

317, 318. Lyric Traditions: Beginnings to 1800

This course will trace the evolution of lyric forms, subject, and attitudes from their medieval beginnings to the late eighteenth century. We will examine the social and historical origins of particular forms (the sonnet, for example) and the resurgence of earlier lyric traditions in the poetry of nineteenth and twentieth-century poets like Emily Dickinson and Elizabeth Bishop.

Meets general academic requirement L (and W which applies to 318 only).

319. Shakespeare I

A study of Shakespeare work in different genres drawn from the full range of his career as a playwright and, some years, of plays composed by one or two of Shakespeare's contemporaries in which plays are treated as literary texts requiring close reading and scripts designed for theatrical performance in Elizabethan and Jacobean England and so requiring attention to historical and political circumstances and to questions of gender and sexuality, authority in family and state, and drama as social expression.

Meets general academic requirement L.

321. Shakespeare II

A study of the reproduction of Shakespeare's plays on film and the appropriation of Shakespeare's plays by modern playwrights, concentrating on the most adventurous recent work in these genres and of the film theory needed to analyze such films as Heiner Muller's *Hamletmachine*, Julie Taymor's *Titus*, Michael Almereyda's *Hamlet*, and Kristian Levring's *The King is Alive* in relation to the Shakespeare plays these films adapt.

Meets general academic requirement L.

323, 324. Renaissance Plays in Process

A topically or historically oriented, performance-centered study of the cultural, social, political, and economic conditions that informed the composition, structure, and production of no more than two plays of the Elizabethan and Jacobean periods requiring hands-on research on such subjects as gender, marriage and sexuality; crime and punishment; licensing and censorship; legal and social status.

Meets general academic requirement L (and W which applies to 324 only).

325, 326. Milton & The Age of Revolution

A study of Milton's major works, especially *Paradise Lost*, and his impact on later poets, most notably the visionary and revolutionary strain in English Romanticism. Other readings will focus on contexts for understanding this impact, such as the Bible, epic traditions, civil war and sectarian strife in seventeenth-century England, colonialism, gender, and psychology.

Meets general academic requirement L (and W which applies to 326 only).

327. The Eighteenth Century

A study of the English theatrical practices from the Stuart Restoration in 1660 through the Licensing Act of 1737, emphasizing social history and encompassing literary and performance analysis of plays, acting, theatre architecture, audience, management practices, and government regulatory policies. Likely topics include the relationship between theatre and politics, the shift from aristocratic to bourgeois cultural forms, constructions of nationality and sexuality, and England's emergence as a superpower.

Meets general academic requirement L and W.

STUDIES IN NINETEENTH CENTURY LITERATURES

329, 330. Nineteenth Century British Fiction

A study of some of the major works of the great age of the novel. From Jane Austen at the turn of the century to Thomas Hardy at its end, English novelists repeatedly explore such issues as the growth out of childhood fantasy into sobering adulthood, the difficulties bred of class differences, the impact of industrialism on personal and social development, and the plight of women trying to find a place in the world. Different versions of the course may center on any one of these issues.

Meets general academic requirement L (and W which applies to 330 only).

331, 333. English Romanticism

Explores the English Romantic movement as it develops in the work of William and Dorothy Wordsworth, Coleridge, Blake, Keats, De Quincey, Byron, and the Shelleys. Readings include "The Marriage of Heaven & Hell," "The Rime of the Ancient Mariner," *Frankenstein*, and *Confessions of an English Opium Eater*.

Attention will also be paid to the relationship between the visual and verbal arts in poets like Blake and Keats.

Meets general academic requirement L (and W which applies to 333 only).

334, 335. Victorian Literature & Culture

A study of the impact in nineteenth-century English culture of the Industrial Revolution, the waning of religion, and changes in gender roles as constructed and evoked by novels, essays, and poems, by such writers as Dickens, Stoker, Wilde, Ruskin Carlyle, Arnold, Tennyson, The Brownings, the Rossettis and other Pre-Raphaelites, along with the painting and decorative arts produced by members of the Pre-Raphaelites movement.

Meets general academic requirement L (and W which applies to 335 only).

336, 337. Nationalism, Romanticism, & American Literature

A study of the first flourishing of American literature in the generation preceding the Civil War, focusing on such influential figures as Emerson, Hawthorne, Melville, Stowe, Thoreau, Poe, and Whitman.

Meets general academic requirement L (and W which applies to 337 only).

338, 339. City, Frontier, & Empire in American Literature

A study of literature produced between the Civil War and the turn of the century. Discussions focus on realism, naturalism, and romanticism, as well as on the relation of these movements to a variety of cultural developments, including reconstruction, the growth of cities and of corporate monopolies, the emergence of women, the closing of the frontier, and nascent imperialism.

Meets general academic requirement L (and W which applies to 339 only).

STUDIES IN MODERN, ETHNIC, AND CONTEMPORARY LITERATURES

340, 341. European Novel in Translation

A study in the development of the modern European novel that ranges from the groundbreaking work of such nineteenth-century writers as Balzac, Flaubert, and Dostoyevsky to the later formal experiments of twentieth-century authors like Kafka, Duras, and Kundera. Texts in question are assembled around the unifying focus of authority and desire. Alternate years.

Meets general academic requirement L (and W which applies to 341 only).

343, 344. Irish Literature

An exploration of representative works in Irish literature, by Catholic and Protestant, nationalist and Anglo-Irish, canonical, and non-canonical writers. Selection of texts will vary from semester to semester, sometimes sampling works in a single genre, sometimes concentrating in a single genre. Topics will include the impact of British colonialism, nationalism and its appropriation of Irish myth, representations of gender, colliding definitions of "Irishness."

Meets general academic requirement L (and W which applies to 344 only).

347, 348. Modern British Fiction

A study of British modernist fiction and formal experimentation from 1900 to 1950; stream of consciousness, open form, mythic plot patterns, poetic prose, alienation, self-conscious and fragmented narration.

Meets general academic requirement L (and W which applies to 348 only).

349, 350. Modern American Fiction

A study of representative fiction published in the United States between the World Wars.

Meets general academic requirement L (and W which applies to 350 only).

352, 353. Modern Poetry

A study of English-language poetry published between 1900-1945, including works of Eliot, Frost, Pound, Stevens, Hughes, Williams, H.D., and Auden, and of the social and political contexts of this work.

Meets general academic requirement L (and W which applies to 353 only).

354. Modern Drama

This course will examine how Modern Drama emerged to challenge the dominant genres and styles of the Victorian theatre. We will examine the development of modern dramatic practice in writers such as Ibsen, Strindberg, Shaw, Wilde, and Chekhov, and its variegated developments in the plays of O'Neill, Glaspell, Miller, Brecht, and Beckett.

Meets general academic requirement L.

357. Native American Literature

A study of Native American fictional and autobiographical narratives since the late nineteenth century from five or six different nations and of the earlier, traditional oral tales and songs that shaped these narratives. Course focuses on language and structure and the religious and philosophical positions that inform these texts.

Meets general academic requirement D or L and W.

358, 359. African American Literature

A study of works by African American writers from colonial times to the present, ranging from early slave narratives to the poetry of Amiri Baraka and the fiction of Ralph Ellison and Toni Morrison.

Meets general academic requirement D or L (and W which applies to 359 only).

360, 361. Jewish American Writing

A study of the narratives, drama, and poetry produced by Jewish writers whose work has been shaped by the immigrant influx of the late nineteenth century and an inquiry into questions this writing raises about ethnicity, identity, "assimilation," the emergence of a distinctive urban Jewish sensibility and style during the twentieth century. Alternate years.

Meets general academic requirement L (and W which applies to 361 only).

362, 363. Contemporary Fiction

A study of representative late twentieth century English-language novels and stories.

Meets general academic requirement L (and W which applies to 363 only).

365, 366. Contemporary Poetry

A study of representative English language poetry published after 1945 in books and periodicals and performed at readings, with particular attention to poetics and critical theory.

Meets general academic requirement L (and W which applies to 366 only).

369. Postwar Drama

An exploration of the ways in which theatre and representational practice were challenged and changed by the Second World War and its political, cultural, and social aftermath. We will examine British, American, and German plays by writers such as Osborne, Pinter, Weiss, Handke, Miller, Bond, and Griffiths.

Meets general academic requirement L.

371. Living Writers

This team-taught course focuses on the work of six or seven well-known writers (of fiction, nonfiction, or poetry) who visit Muhlenberg to discuss their work, meet with students, and give a public reading. The class meets as one group on a weekly basis, either for a lecture or for a presentation by one of the visiting writers, and again in sections for discussions of each writer's work. Writers who have participated in this course include Peter Carey, Philip Levine, Andrea Barrett, Robert Pinsky, Carolyn Forché, Paul Muldoon, Frederick Busch, David Bradley, Alice Fulton, Jay Wright, and Francine Prose. Fulfills elective requirement of writing concentration. Offered in the fall semester of alternating years.

Meets general academic requirement L.

373, 374. The Literary Marketplace

A study of tensions between the reality of literature as a business and popular views of literary writing as an "inspired" individual activity, of writers as lone geniuses, "prophets", "priests", etc., and an examination of the implications of writers' immersion in, dependence on, and resistance to the commercial, collaborative,

and entrepreneurial conditions of literary production. Fulfills elective requirement of writing concentration. Alternate years.

Meets general academic requirement L (and W which applies to 374 only).

375, 376. Postcolonial Literature

A study of English-language literatures in former British colonies—in Africa, the Caribbean, Australia, and the Indian subcontinent and its Diaspora—focusing on the work of such writers as Walcott, Gordimer, Naipaul, Rushdie, and Soyinka, variously taught as a survey of these literatures or as a more concentrated study of the literature of one or two nations or regions. Alternate years.

Meets general academic requirement D or L (and W which applies to 376 only).

377. Contemporary Drama & Performance Art

A survey of contemporary theatre practice which includes not only the study of new literary plays by writers such as Stoppard, Kushner, Wolfe, Mann, but also of other kinds of performances such as avant-garde theatre, performance art, the new vaudeville, and the one-person show. Artists to be studied may include: Anna Devere Smith, John Leguizamo, Pina Bausch, The Theatre of the Ridiculous, and The Wooster Group.

Meets general academic requirement A.

TUTORIALS AND SEMINARS

Admission to these courses requires prior arrangement, instructor permission, or advanced class standing.

415. Writing Theory

A required course for students who plan on serving as Writing Center tutors and Writing Assistants. The course will focus (1) on writing, reading, and evaluating analytic and literary essays, and (2) on writing theory and how various theories translate into classroom and one-on-one tutorial practice. In addition, students will spend an hour a week in the Writing Center, first observing tutorial sessions, then co-tutoring, and finally tutoring students one-on-one.

Prerequisite: instructor permission

450-459. Topics in Writing & Publishing

500-549. Seminar in English

English Department seminars are offered once or twice a semester by different members of the department on a rotating basis. They are required of all senior English majors and may also be taken by juniors with instructor permission.

903. Nonfiction Tutorial

905. Fiction Tutorial

907. Playwriting Tutorial

909. Poetry Tutorial

950. Directed Reading, Seminal Texts

Primarily an experience in private reading and research, this course will allow students who plan on taking more than the minimum number of required courses in the major to immerse themselves in a seminal work of literature that is not ordinarily taught to completion in the regular curriculum, e.g., *The Divine Comedy*, *The Faerie Queene*, *Ulysses*, etc. Students will also be expected to acquaint themselves with the source-texts that have made this work possible as well as with the wide body of secondary sources that have developed in response to it. In order to receive credit for this course, students will have to negotiate, and fully satisfy the conditions of, a work-contract with a member of the English faculty. Open only to juniors and seniors who have demonstrated the ability to do independent work and have secured the permission of a sponsoring instructor. Pass-fail only.

ENVIRONMENTAL SCIENCE (ESC)

Director: Assistant Professor Kelsey

Professors: Herrick, Klem, Shive, Sistare, Wilson

Associate Professors: Borick, Gambino, Lawlor, Lewis, Niesenbaum

Assistant Professor: Iyengar

Lecturer: Rosenberg

A major in environmental science provides students with many opportunities in industry, government, and academia. For example, graduates are well prepared for careers in environmental consulting, environmental regulation, advocacy, or education. Students can also pursue graduate studies in a wide range of fields including environmental science, ecology, oceanography, forestry, law, medicine, and toxicology. A program with the School of Forestry and Environmental Studies at Duke University is available (see Cooperative Programs for details).

Students are encouraged to obtain internship experience in specialized fields of Environmental Science and/or participate in an environmentally oriented study abroad program during their junior year. Recently, students have served with local educational institutions, nonprofit organizations, state and federal government, and local industries. Others have spent time in Australia, Ecuador, Costa Rica, Canada and other countries.

Major Requirements

To be retained as a major, a student must maintain a 2.000 grade point average for all biology, chemistry, physics, mathematics, environmental science, and environmental studies courses attempted.

A major in Environmental Science must complete 15 courses as outlined below.

Required Science Courses

BIO 150 Principles of Biology I

BIO 151 Principles of Biology II

CHM 103 General Chemistry I

CHM 104 General Chemistry II

MTH 121 Calculus I
MTH 144 Introduction to Statistics **OR**
MTH 104 Statistical Methods
ESC 113 Environmental Science I
ESC 114 Environmental Science II
ESC 201 Environmental Geology
ESC 310 Environmental Chemistry **OR**
ESC 312 Toxicology

Elective Science Courses (choose at least 3):

BIO 255 Ornithology **OR**
BIO 272 Marine Biology **OR**
BIO 242 Entomology
BIO 270 Ecology **OR**
BIO 260 Field Botany and Plant Ecology
BIO 275-279 Investigations in Field Biology (only 1 can be taken for environmental science credit)
BIO 460 Physiological Ecology **OR**
BIO 465 Conservation Biology **OR**
BIO 262 Cultural and Economic Botany
CHM 201 Organic Chemistry I
CHM 202 Organic Chemistry II
CHM 311 Analytical Chemistry
ESC 310 Environmental Chemistry (if not taken as required course)
ESC 312 Toxicology (if not taken as required course)
ESC 480 Special Topics in Environmental Science
PHY 211 General Physics I
PHY 212 General Physics II
PHY 250 Simulating Science
Other science courses as approved.

Elective Environmental Studies Courses (choose at least 1):

COM 336 or 337 Environmental Communication
ECN 245 or 246 Environmental Economics
EST 350 Environmental and Cultural Conservation in Latin America
HST 341 or 342 Environmental History of the United States
PHL 246 Environmental Philosophy
PSC 216 or 217 Environmental Politics & Policymaking
PSC 330 or 331 Comparative & International Environmental Policies
SOC 320 Environmental Sociology
Other courses as approved.

Students may sharpen their focus by completing additional courses in the sciences.

Teacher Certification in Environmental Education

Students seeking certification for the teaching of environmental education must take BIO 260 Field Botany and Plant Ecology, BIO 270 Ecology, and BIO 465 Conservation Biology within the elective science courses. Students must also complete the following education courses. Contact the Director of Environmental Science for details.

- EDU 101 Foundations of Education
- EDU 102 or 103 Educational Psychology
- EDU 200 Teaching and Learning
- EDU 201 Exceptional Learner
- EDU 360 The Secondary School Curriculum: Methods in Environmental Education

Students approved by the Environmental Science Honors Committee may register for honors work which requires completing a research project, presenting results orally and writing a formal scientific report. Based on student performance as judged by the quality of the honors work and by maintaining at least a 3.500 grade point average in all environmental science and environmental studies courses, environmental science faculty will determine if honors will be granted.

111. Topics in Environmental Science

Environmental science is an interdisciplinary subject area that draws on biology, chemistry, geology, and ecology to study the earth's natural systems. Students learn how science is conducted and study the earth's natural environments, interactions of organisms with each other as well as their physical surroundings and the sources and effects of environmental stress. Three hours of lecture/discussion each week.

Meets general academic requirement S.

113. Environmental Science I

This is an introductory environmental science course that investigates the functioning of earth's natural systems. Topics include the cycling and flow of water, energy, and nutrients, biodiversity, the basic principles of ecology, and the interrelationships between organisms and their environments. The causes and effects of, as well as possible solutions to, several environmental problems are covered as well. For example, human population growth, agriculture, and energy utilization are discussed in detail. Laboratory exercises and field trips teach students to use basic techniques to collect and analyze ecological and environmental data and reinforce topics discussed in the lecture. Three hours of lecture/discussion and three hours of laboratory each week.

Meets general academic requirement S.

114. Environmental Science II

This is a continuation of ESC 113. Students study a number of human activities that can alter natural ecosystems and adversely affect human health. Topics include waste management, resource exploitation, and the behavior of pollutants in soil, air, and water. The science of controversial political issues such as global climate change, ozone depletion, and acid rain is explored and debated. In addition, the basic principles of human and environmental toxicology, risk assessment, and environmental impact analysis are covered. Laboratory exercises and field trips reinforce topics discussed in the lecture. Three hours of lecture and three hours of laboratory per week.

Prerequisite: ESC 113 Environmental Science I

Meets general academic requirement S.

201. Environmental Geology

Organisms are inextricably bound to their physical environments. An understanding of the interactions between the earth's geology and biology is therefore fundamental to a study of environmental science. This course examines earth's physical environments as they relate to environmental science. Topics will include the basic principles of geology, natural hazards such as volcanoes, earthquakes, mass wasting, and flooding, and the global hydrologic cycle. Global water resources will be examined, with an emphasis placed on groundwater supply, movement, and pollution. Three hours of lecture/discussion and three hours of laboratory per week. Offered alternate years (spring).

Prerequisite: any 100-level science course or permission of the instructor

Meets general academic requirement W.

310. Environmental Chemistry

The behavior of chemical pollutants in earth's natural systems is critical to a study of environmental science. This course will examine the chemistry of soil, air, and water, the interactions and cycles of elements among them, and the pollutants that can adversely affect these important resources. Topics will include an overview of the physical chemistry of soils, reactions and fates of pollutants in soil, reactions and movement of pollutants in water, wastewater treatment, and chemical reactions in the atmosphere, including the mechanisms of smog production, ozone depletion, and global warming. The chemistry of power generation involving fossil fuels, radioactive isotopes, solar energy, fuel cells and other resources will also be considered. Three hours of lecture/discussion per week. Offered alternate years (fall).

Prerequisite: CHM 103 General Chemistry I and CHM 104 General Chemistry II or permission of the instructor

312. Toxicology

Toxicology is, in broad terms, the science of poisons. This course will provide an overview of the many branches of toxicology and examine the effects of poisons, or toxins, on individual organisms and ecosystems. Of specific interest will be the uptake (ingestion), metabolism, storage, and excretion of toxins and the adverse effects experienced by organisms exposed to toxic substances. The mechanisms by which substances induce cancer, birth defects, and nervous and immune system damage will be studied. Additionally, fundamental principles of toxicology such as dose-response and selective toxicity will be described. The sources, chemical properties, environmental fates, and regulation of toxins will also be addressed. Three hours of lecture/discussion per week. Offered alternate years (fall).

Prerequisites: CHM 104 General Chemistry II, BIO 150 Principles of Biology I or BIO 151 Principles of Biology II (recommended), CHM 201 Organic Chemistry I (recommended), or permission of the instructor

960. Environmental Science Internship

Students are encouraged to pursue internship experiences.

970. Environmental Science Independent Study/Research

A limited number of independent study options are available for those students looking to expand their environmental science experience in directions not available within the normal course offerings or during an internship.

ENVIRONMENTAL STUDIES (EST) (Minor only)

Director: Associate Professor Giacomo Gambino

The courses of instruction listed below constitute an interdisciplinary environmental studies minor designed to provide the student with an understanding of the fundamental socioeconomic, political, historical and philosophic institutions, attitudes, and values in which the environmental crisis is rooted. Students in this program are also expected to secure at least a basic knowledge of the policies and strategies,

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whether political, economic, or technological, required to address the problems which flow from the environmental crisis.

Minor Requirements

ESC 113 Environmental Science I

EST 101 Introduction to Environmental Studies

EST 960 Environmental Studies Internship

Four additional courses, chosen from among the following:

BIO 112 Concepts of Biology: Biodiversity

BIO 260 Field Botany & Plant Ecology

BIO 262 Cultural & Economic Botany

BIO 270 Ecology

BIO 465 Conservation Biology

COM 336 or 337 Environmental Communication

ECN 245 or 246 Environmental Economics

ECN 249 or 250 Economics of Natural Resources & Sustainability

ENG 260 Literature and the Environment

ENG 338 or 339 City, Frontier, & Empire in American Literature

ENG 356 or 357 Native American Literature

HST 341 or 342 Environmental History of the United States

PHL 246 Environmental Philosophy

PSC 216 or 217 Environmental Politics & Policy Making

PSC 330 or 331 Comparative & International Environmental Policies

PSC 359 or 360 Political Economy & Philosophy of Environmentalism

SOC 260 Human Population Growth

SOC 320 Environmental Sociology

ESC 111 Topics in Environmental Science

ESC 114 Environmental Science II

EST 970 Environmental Studies Independent Study/Research

101. Introduction to Environmental Studies

An examination of the ecological, political, social, and ethical implications of contemporary environmental problems. Attention will be given to understanding and evaluating the scientific nature of local, national and global environmental issues, the historical origins of these problems, and the strategies and goals of the contemporary environmental movement. The course also considers the political, social, and technological options available for addressing environmental problems.

350. Environmental & Cultural Conservation in Latin America

In this interdisciplinary course, students will explore real solutions to the delicate problem of environmental and cultural conservation in developing Latin American countries. Each year a particular country (Costa Rica, Guatemala, Ecuador, or Honduras) will serve as a model and ultimate destination for study. Students will meet regularly during the spring semester to develop projects and prepare for the two-week intensive, travel-study program, which will take place in early summer. This preparation will include study of the area's ecological diversity, political and cultural history, and relevant Spanish vocabulary and conversation skills. In the Latin American country, students will explore a variety of habitats, live in and interact with members of a small community, work with conservation professionals, and conduct independent research projects. The objective of this course is to remove the blinders of specific discipline-based learning and of our own culture to show that if we are to develop lasting solutions, we must consider the environment in relation to the people who live in it.

Prerequisite: successful completion of the language requirement in Spanish and instructor permission
Meets general academic requirement D or S.

960. Environmental Studies Internship

Internships may be arranged with appropriate private or public institutions on a local, state, or federal level (especially through the Semester in Washington program). Internships are designed to provide students with practical as well as theoretical insight into environmental problems.

970. Environmental Studies Independent Study/Research

Independent study may be enrolled through any academic department with approval of the faculty advisor and should provide an opportunity to undertake an in-depth examination of some facet of environmental literature and research findings.

GERMAN STUDIES

Directors: Professor Albert A. Kipa and Associate Professor Franz Birgel

Major Requirements

Students majoring in German Studies must successfully complete GRM 204 Intermediate German II and any previous language courses with a grade point average of at least 2.000 or demonstrate an equivalent command of the language. All majors must maintain a grade point average of at least 2.000 in all courses attempted in the major. Normally, GRM 221 German Civilization will fulfill the College's writing intensive requirement in the major.

Majors take nine courses beyond GRM 204 Intermediate German II, including:

- GRM 220 or 221 German Civilization
 - GRM 251 or 252 Masterpieces of German Literature I
 - GRM 253 or 254 Masterpieces of German Literature II
 - GRM 316 or 317 German Cinema
 - GRM 301 or 302 German Conversation & Composition **OR**
 - GRM 303 or 304 Advanced German Conversation & Composition
- Four additional courses selected from:
- GRM 310 or 311 Business German

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GRM 355 or 356 The Faust Theme in Literature, Music & Art
GRM 360 The New Germany
GRM 400 Introduction to German Literature
GRM 412 German Prose
GRM 413 German Drama
GRM 414 German Lyric Poetry
HST 245 or 246 Modern Germany
MUS 227 Opera
PSC 230 or 231 European Politics & Government

Minor Requirements

Students minoring in German Studies must successfully complete GRM 203 Intermediate German I and any previous language courses with a grade point average of at least 2.000 or demonstrate an equivalent command of the language. All minors must maintain a grade point average of at least 2.000 in all courses completed in the minor.

Minors take six courses beyond GRM 203 Intermediate German I, including:

GRM 220 or 221 German Civilization
GRM 251 or 252 Masterpieces of German Literature I
GRM 253 or 254 Masterpieces of German Literature II
GRM 204 Intermediate German II ***OR***
GRM 301 or 302 German Conversation & Composition

Two additional courses selected from the German Studies program offerings.

360. The New Germany*

An examination of the cultural, geographic, and social structures and the intellectual currents and issues of reunited Germany as well as an exploration of their traditions and historical roots through reading and analysis of pertinent texts and works of literature, film, and art. Taught in English.

Meets general academic requirement H.

* Course will contain an additional language component for students pursuing a degree in German Language and Literature. Those students will meet with the instructor for an additional session per week when the subject matter will be discussed in German.

HISTORY (HST), GEOGRAPHY (GEO)

Head of Department: Professor John W. Malsberger

Professors: Adams, Wilson

Associate Professors: Cragin, Croskey, Ridner, Tighe

Assistant Professor: Stein

Lecturers: Clemens, Jones

The Department of History seeks to instill in students an appreciation for the past within the liberal arts context. It aims to develop in students knowledge of the political, social, cultural, economic, and institutional developments that have shaped the contemporary world and to equip them with the skills necessary to acquire, interpret, and synthesize historical evidence. Because the history major emphasizes research, writing, and critical analysis it provides an excellent foundation for students to pursue careers in law, education, business, and public service.

Major Requirements

To declare a major in history, a student must achieve at least a C in HST 100-149 Introduction to History. To remain in good standing, a student must maintain at least a 2.000 grade point average in all major requirements.

Required courses:

HST 100-149 Introduction to History

HST 400 Historical Methods

HST 500-549 History Seminar

Six advanced courses in history

(Students must complete at least one course in each of three areas of study: European, American, and Non-Western History, and must complete at least one course whose content focuses before 1789.)

Majors interested in spending their junior year abroad should consult with their faculty advisor early in the sophomore year. Internships in various political and cultural areas are available in the junior and senior years for qualified majors.

An interdisciplinary major, consisting of work in history and political science, is also available to interested students. Upon completion of the program as outlined, a student will be certified for the joint major in history/government. See the interdisciplinary studies section of the catalog for requirements related to this major.

Minor Requirements

Required courses:

HST 100-149 Introduction to History

HST 400 Historical Methods

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HST 500-549 History Seminar
Three advanced history courses

To remain in good standing as a minor, a student must maintain at least a 2.000 grade point average in all minor requirements.

Honors Program

A student may complete honors in either semester of the senior year. The Department of History grants honors at commencement to majors who have fulfilled the following conditions:

1. A 3.750 grade point average in history and an overall 3.500 grade point average at the end of the semester before which the honors program is undertaken.
2. The submission and approval of an honors essay by the Monday of the final week of classes of the semester selected. This essay, which may be developed from a paper submitted in a course, must include significant use of primary source materials. (Honors candidates develop their papers through enrolling in HST 970 History Independent Study/Research.)
3. Passing of an oral examination conducted by members of the department. This examination will be given at the end of the selected semester and will cover the field of the student's honors essay.

Teacher Certification

Required courses for history majors with secondary education certification:

HST 100-149 Introduction to History
HST 400 Historical Methods
HST 500-549 History Seminar
Five advanced courses in history

(Students must complete at least one course in each of the three areas of study: European, American, and Non-Western, and at least one course whose content focuses before 1789.)

Courses leading to citizenship certification:

ECN 101 Principles of Macroeconomics
ECN 102 Principles of Microeconomics
GEO 101 World Geography
Two courses in political science
PSC 101 Introduction to American National Government
PSC 103 Introduction to Comparative Government & International Relations
PSC 104 Introduction to Democracy

HISTORY COURSES

Courses in History are numbered as follows:

100-150 are courses designed to acquaint beginning students with the academic study of history.

200-299 are courses that concentrate on broad chronological studies of countries or regions. These courses are generally intended for students with one prior college-level history course.

300-399 are courses that examine topics or themes in history. These courses are generally designed for students with one or more prior college-level history courses.

100-149. Introduction to History

Using a topical approach, this course will introduce the student to the study of history. The course will develop critical, analytical, and writing skills using historical data and methods. Each course will consider historical developments in time, will introduce the student to different modes of historical study, will familiarize the student with appropriate primary and secondary sources, and will encourage an appreciation of the diversity of the historical past. Topics will be announced and described in the registration material for each semester.

Meets general academic requirement H.

150. Introduction to Traditional Japan

This course surveys the traditional culture and history of Japan, down to the beginning of modernization. Major topics are the court culture, the samurai, and the culture of the townspeople. Appropriate for students with no prior college-level history.

Meets general academic requirement D or H.

400. Historical Methods

An introduction to research and writing in history. The course will address different approaches to history, the nature and types of historical sources, bibliographical aids in research, general research skills, the authenticity and reliability of sources, and the techniques and processes of various types of historical writing, including a major research paper.

Prerequisite: any two history courses

Meets general academic requirement H or W.

AMERICAN HISTORY COURSES

221, 222. Colonial America

An examination of the peoples, places, and regions of early America from 1492 to 1763. Specifically, this course focuses on the interaction of Indian, European, and African peoples, the transformation of European (Spanish, French, Dutch, and English) colonies from frontier outposts to thriving communities, and the rise and eventual cultural and economic domination of British North America.

Meets general academic requirement H (and W which applies to 222 only).

223, 224. Revolutionary America

An examination of the political, economic and cultural causes, contexts, and outcomes of the American Revolution, 1763-1800. Specifically, this course investigates the origins of the conflict in eighteenth-century colonial America, its impact upon various peoples (White, African-American, Indian, male and female) and the regions (New England, Mid-Atlantic, and South), and its eventual resolution in the political and social workings of the Confederation and Constitutional eras.

Meets general academic requirement H (and W which applies to 224 only).

225, 226. Nineteenth Century America

A political and social history of the United States from 1815 to the Populists. The course will emphasize the key political developments of our nation's first century and the social contexts in which they occurred.

Meets general academic requirement H (and W which applies to 226 only).

227, 228. Twentieth Century America I: 1900-1945

An examination of the changes in American political culture arising from the nation's transformation into an urban, industrial nation. Topics to be emphasized include: the reform traditions of Progressivism and the New Deal, the rise of American internationalism, and the development of a modern American culture. The course also uses feature films from the appropriate era to illustrate major themes in the nation's development.

Meets general academic requirement H (and W which applies to 228 only).

229, 230. Twentieth Century America II: 1945-Present

An analysis of post-World War II America focusing on the fragmentation of the national consensus on domestic and foreign policy. Topics to be emphasized include: The Cold War, McCarthyism, the civil rights revolution, the counter-culture of the 1960's, the Vietnam War, Watergate, and the Reagan years. The course also relies on feature films from the appropriate era to illustrate major themes in the nation's development.

Meets general academic requirement H (and W which applies to 230 only).

231, 232. American Cultural and Intellectual History: Nineteenth Century

Traces the development of American intellectual and cultural life from the early days of the new nation until the end of the nineteenth century. Using primary sources and recent historical monographs this course will explore both high and low culture, the creation of an urban mass culture, the development of an American literary and philosophical voice, the clash of science and religion, and the rise of a university trained professional class.

Meets general academic requirement H (and W which applies to 232 only).

233, 234. American Cultural and Intellectual History Since 1900

Traces the development of American intellectual and cultural life since 1900. Using primary sources and historical monographs, the course will explore topics such as the rise of American philosophy, the flourishing of American literature, the elaboration of American political and social thought, the development of popular and mass culture, and the growth of minority cultures.

Meets general academic requirement H (and W which applies to 234 only).

321, 322. History of American Foreign Policy

This course analyzes the causes and consequences of America's development as a world power. Topics to be considered include: the rise of an American diplomatic tradition during the colonial/Revolutionary era, nineteenth-century continental expansion, and the evolution of American internationalism in the twentieth century. Primary emphasis is given to twentieth-century developments.

Meets general academic requirement H (and W which applies to 322 only).

323, 324. Constitutional History of the United States

This course traces the evolution and application of constitutional theories and concepts from our English forebears to the US today. The great controversies which reached the Supreme Court are examined in light of contemporary political and cultural values, and of their enduring national importance.

Meets general academic requirement H (and W which applies to 324 only).

325, 326. American Economic History

This course, emphasizing the post-1860 period, examines both the roots of American economic growth and the impact that growth has had on American ideas, culture, and institutions. Topics to be considered include: the rise of big business, changes in the internal structure of the business establishment, the development of a corporate culture, shifting attitudes of government toward business, and the state of the modern American economy.

Meets general academic requirement H (and W which applies to 326 only).

327, 328. Women's America

Women, whether as daughters, wives, mothers, workers, scholars, or political activists, have played pivotal roles in American history. This course, an overview of American women's history from colonial times to the present, examines the variety of women's experiences through time by analyzing the myriad roles they played in the family, society, economy, and national politics. Specifically, using gender as its primary lens of analysis, this course seeks to uncover the broader contexts of American women's experience by examining the dynamic interplay of women and men, values and culture, and discussing how structures of power linked especially to gender, but also to class and race, shaped women's lives and mediated their experiences in the private and public worlds of America.

Meets general academic requirement H (and W which applies to 328 only).

333, 334. American Military History

This course will explore the role that military combat has played in American history. Its primary focus will be on the American Revolution, the Civil War, World War I and II, and Vietnam. Students will discuss the causes of America's wars, the primary military operations involved in each, and the impact each had on American society. Extensive reading and writing, independent thinking, and wide-open class discussions will be the highlights of the course.

Meets general academic requirement H (and W which applies to 334 only).

341, 342. Environmental History of the United States

An environmental history of the United States from the English settlement to the present. An examination of the ideas and attitudes that shaped human impact on and interaction with the land and the environment. The course will also explore the influence of legislation, judicial decisions, and governmental policy upon the environment. In addition, the course will examine land-use patterns and their significant changes over the past 400 years. The readings will emphasize relevant primary writings and recent scholarship.

Meets general academic requirement H (and W which applies to 342 only).

345, 346. Disease & Medicine in American History

This course focuses on the complex interplay of disease and medicine in the context of American culture and society over the last two centuries. It will examine the changing concepts of disease, the increasing success with which medicine has healed the body, and the development of the medical professions from the late 18th century to the present. It will also explore the ways in which Americans have employed diseases as social and cultural metaphors.

Meets general academic requirement H (and W which applies to 346 only).

357, 358. Alternative America: The Losers' History of the United States

Much of the history we read is written by the winners of past conflicts. This course examines major events in America's past such as the ratification of the Constitution, the sectional conflict of the antebellum era, and the industrialization of the late 19th century from the perspective of the losers in those conflicts. We will consider the criticisms made by the losers and their alternatives to determine how different the United States might have been had they prevailed.

Meets general academic requirement H (and W which applies to 358 only).

361, 362. Latinos in the United States

This course will examine the three major groups of Latinos in this country—Cubans, Mexicans, and Puerto Ricans. It will examine the history of U.S. relations with each of these countries and the historical reasons for immigration. We will also study the experiences of the new arrivals and their economic, social, and political participation in U.S. society and issues such as racial, linguistic, and ethnic identity. In addition, students will have the opportunity to use the city of Allentown, which has a Latino population of close to 25 percent, as a living laboratory.

Meets general academic requirement D or H (and W which applies to 362 only).

363, 364. African American History

A study of African American culture and society from its origins in slavery to the civil rights movement in contemporary America. Examines the social, economic, political, and intellectual aspects of Black life in

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the British colonies and in the United States. Special emphasis will be placed on reading the works of African American authors.

Meets general academic requirement D or H (and W which applies to 364 only).

371, 372. The American Frontier

The frontier is one of the most important, enduring, and mythologized symbols of America. Through readings in primary and secondary sources, the course will explore the American frontier of the 17th, 18th, and 19th centuries as process, symbol, and place. The students will study the contrast of frontier myths with realities and will discuss the frontier's role in shaping American culture and identity. Close attention will be paid to the impact the pioneers had on the landscape and on the Native Americans who resided there.

Meets general academic requirement H (and W which applies to 372 only).

EUROPEAN HISTORY COURSES

203, 204. Ancient Greece

A survey of Greek history and civilization from the Minoan period to the Roman Conquest, with emphasis on cultural, social, economic, and institutional developments, as seen in the light of classical Greek historical writings, literature, art, and scholarship.

Meets general academic requirement H (and W which applies to 204 only).

205, 206. Ancient Rome

The Roman Empire endured from 27 B.C. to 1453 A.D., and its history poses the question, not why it fell, but how it could have lasted so long. This course will focus on the first four centuries of the empire, beginning with the civil wars at the end of the first century B.C., from which the first Roman emperor took his rise, to the reign of Theodosius at the end of the fourth century A.D., when the centers of empire had moved away from Rome itself to Constantinople and Milan. We will give special attention to the political and social foundations of Rome, to Rome's relations with the provinces, and to their interactions with the capital. The range of economies, religious traditions and cultures within Roman frontiers will be considered, as will the role of the Mediterranean itself in fostering trade, imperial administration, and the rise of Christianity.

Meets general academic requirement H (and W which applies to 206 only).

211, 212. Medieval Europe

The course begins with the fall of the Roman Empire in the West, explores the gradual development of a new way of life (incorporating Roman, Christian, and German elements), and ends with the High Middle Ages—a time of intellectual and economic awakening. Emphasis will be on the cause and nature of such peculiarly Medieval institutions as feudalism and manorialism, conditions of daily life, cultural achievements, and precursors of Modern European civilization.

Meets general academic requirement H (and W which applies to 212 only).

213, 214. Seventeenth Century Europe

A detailed treatment of political, social, cultural, and intellectual developments in Europe from 1598 to 1715. The principal focus will be on Western Europe. Themes shall include: the evolution of the dynastic monarchies, the "cultural crisis" and the Scientific Revolution, and the emergence of a European state system in the Age of Louis XIV.

Meets general academic requirement H (and W which applies to 214 only).

215, 216. Eighteenth Century Europe

A detailed treatment of political, social, cultural, and intellectual developments in Europe from 1715 to 1795. The principal focus will be on Western Europe. Themes shall include: the political and social structure of *ancien regime* Europe, the diplomacy of the European state system, the Enlightenment, and the transition from despotism to revolution.

Meets general academic requirement H (and W which applies to 216 only).

217, 218. Revolution & the Birth of Modern Europe (c. 1787-1919)

A comparative overview of an era of violently dramatic change, one marked by an unprecedented incidence of revolts and reactions across the European continent, in the low countries, France, Italy, Russia, Germany, and elsewhere. Monarchs were unseated and restored; republics instituted and destroyed; a Worker's International proclaimed and challenged; and many lives were lost in the process--from that of the Bourbon King Louis XVI to the Spartacist Rosa Luxemburg's. A new mass society was forming, founded increasingly on respect for the rule of law and patience with democracy.

Meets general academic requirement H (and W which applies to 218 only).

241, 242. Modern France (c. 1789-1914): The Making of a Nation

A survey of France from the Enlightenment to World War One. Topics to be considered include the destruction of feudalism and absolute monarchy, the successes and failures of the Great Revolution, Napoleon Bonaparte's reign at home and abroad, and the eventual establishment, toward the close of the nineteenth century, of a unitary Republic based on the conflicting principles of liberty and equality.

Meets general academic requirement H (and W which applies to 242 only).

243, 244. Modern France (c. 1914-present): The Unmaking of a Nation

A survey of France from the Great War to the present. Subjects to be explored include the experience of two world wars, colonial conflicts (domestic and foreign), the 1968 revolts, and the decline of the welfare state.

Meets general academic requirement H (and W which applies to 244 only).

245, 246. Modern Germany (c. 1871-present) United, Divided, Reunited

An examination of German history since the consolidation of the Empire. This survey investigates Kaiser William II's regime, the Peace of Paris and the bloodshed it concluded, the Weimar Republic, the Nazi seizure of power, the Holocaust, the bipolar world of the Cold War, and national reunification in 1990.

Meets general academic requirement H (and W which applies to 246 only).

251, 252. Foundations of the British Peoples to c. 1485

This course surveys the prehistory and early history of Great Britain and Ireland. It focuses on the formation of the English and Scottish monarchies and on the interactions of the English, Irish, Scottish and Welsh peoples from early times until the early modern period. Some emphasis will be placed on the development of government and law in England during this period.

Meets general academic requirement H (and W which applies to 252 only).

253, 254. From England to the United Kingdom: c. 1399-c. 1800

This course emphasizes the consolidation of national monarchies in England and Scotland, as contrasted with the politically subordinate position of Ireland, and the often conflicted interactions of their peoples. The effects of the Reformation, 17th Century constitutional conflicts stemming from the Anglo-Scottish dynastic union of 1603, the growth of an English/British Empire, and the subordination of Scotland (1701) and Ireland (1800) to England are all principal themes, as is the impact of the American and French Revolutions.

Meets general academic requirement H (and W which applies to 254 only).

255, 256. The British Empire/Commonwealth: Rise & Decline, c. 1760-c. 2000

This course focuses on Britain's period of imperial hegemony, roughly from the Napoleonic Wars to the aftermath of World War II. In addition to Britain's changing international role and influence, the course treats the reforms of the 1820 and 1830s, which created the governing institutions of modern Britain, and looks at the slow unraveling of the "United" Kingdom in the 20th century and its ambivalent position in the European Union today and tomorrow.

Meets general academic requirement H (and W which applies to 256 only).

261, 262. Early Russia

This course studies Russian History to the time of Peter the Great, roughly to the end of the 17th century. The formation of the Kievan state, the Mongol period, and the rise of Muscovy and the role of the church are major topics.

Meets general academic requirement H (and W which applies to 262 only).

263, 264. Imperial Russia

This course surveys the history of Russia in the Imperial period, from Peter the Great to the Revolutions of 1917. The development of the Russian state and Russian society, the influence of Western Europe are major themes.

Meets general academic requirement H (and W which applies to 264 only).

265, 266. Soviet Russia

This course covers the Russian Revolution and the development of the Soviet State, its decline and fall.

Meets general academic requirement H (and W which applies to 266 only).

303, 304. Byzantine History

This course will cover the history of the Byzantine Empire from the reign of Constantine, at the beginning of the 4th century A.D., to the fall of Constantinople to the Turks in 1453. Over the term we will study the development of eastern orthodoxy and spirituality, the cultural tensions and exchanges between capital and provinces in the empire, the relations between Byzantium and Islam, and Byzantium and the West, and the concept and role of the emperor in Byzantine political life and thought.

Meets general academic requirement H (and W which applies to 304 only).

315, 316. Renaissance

The course concentrates on the Italian Renaissance of the fourteenth and fifteenth centuries and the Northern Renaissance of the fifteenth and sixteenth centuries. Particular emphasis is given to the cultural, intellectual, and religious developments of that epoch.

Meets general academic requirement H (and W which applies to 316 only).

317, 318. Reformation

Both the Protestant and Catholic Reformations are studied from primary sources. The course progresses from an examination of the origins and causes of the Reformation to a consideration of the various types of Reformation which occurred in sixteenth-century Europe. It concludes with an examination of the impact of the Reformation upon European states and societies down to 1600.

Meets general academic requirement H (and W which applies to 318 only).

373, 374. Europe & the Era of the First World War

A chronologically broad and topically varied survey of the character and conduct of World War One, as well as of its short- and long-term origins and consequences. How did it happen that industrialized Europe, more prosperous and liberal than ever before, threw itself into a battle many understood to be in vain? Considering the stalemate that soon formed on the Western Front, one may especially wonder why the struggle was allowed to continue beyond repair. Other than the particulars of the fighting waged between 1914-18, the central subjects of study include Nationalism and the New Imperialism.

Meets general academic requirement H (and W which applies to 374 only).

375, 376. Europe & the Era of the Second World War

A chronologically broad and topically varied survey of the character and conduct of World War Two, as well as of its short- and long-term origins and consequences. Why did the First World War—thought to have abolished all desire for international conflict—lead to a Second? Soon after sacrificing millions of their own to death, one may indeed wonder why the societies of Europe engaged in a clash which was to inflict unrivaled harm on their peoples, at and beyond the military fronts, and also destroy their long-standing world dominance. Other than the particulars of the fighting waged between 1939-45, the central subjects of study include the Depression and the Cold War.

Meets general academic requirement H (and W which applies to 376 only).

NON-WESTERN HISTORY COURSES

201, 202. The Ancient Near East

This course is concerned with the various civilizations that emerged in Western Asia and Egypt during the period c. 4000 B.C.-500 B.C. The objectives are: to obtain an overview of the historical development of this area and to study the major cultures which evolved there, including (primarily) those of the Sumerians, Egyptians, Babylonians, Hittites, Assyrians, Hebrews, and Persians.

Meets general academic requirement D or H (and W which applies to 202 only).

271, 272. Modern China

China's last imperial dynasty, the increasing impact of Western influence, China's collapse, and the development of the Communist state will be examined through lectures, readings, and discussion.

Meets general academic requirement D or H (and W which applies to 272 only).

273, 274. Modern Japan

The Tokugawa period, the Meiji Restoration, Japan's emergence as a major power in East Asia, World War II, and Japan's postwar transformation will be examined through lectures, readings, and discussion.

Meets general academic requirement D or H (and W which applies to 274 only).

275, 276 Rise of Islam

This course will explore the period of Middle Eastern History [600-1800 CE] which witnessed the emergence of Islam as a religion, political system, and cultural tradition. Topics include the life and career of Muhammad, the basic tenets of Islam, the Arab Conquests and rise of a unitary Islamic Empire, the Umayyad and Abbasid caliphates, the development of a high Islamic culture, the Mongol invasions, and the states that grew in the aftermath of those invasions; the Mamluks of Egypt and Syria, the Ottoman Empire, and the Safavid.

Meets general academic requirement D and H Perspectives (and W which applies to 276 only).

277, 278. Modern Middle Eastern History

A history of the Middle East in the nineteenth and twentieth centuries. Topics covered include attempts at reform in the Ottoman Empire and Iran, the impact of developing nationalisms and European imperialism, the impact of World War I and World War II, the emergence of new states, and the Arab/Israeli conflict.

Meets general academic requirement D or H (and W which applies to 278 only).

291, 292. Colonial Latin America

The study of major themes of colonial Latin American history such as the encounter between Europeans and Indigenous peoples, the biological and cultural consequences of conquest, moral questions of conquest and the development of colonial society and institutions.

Meets general academic requirement D or H (and W which applies to 292 only).

293, 294. Modern Latin America

The study of post independence Latin America, nation building, and 20th Century issues such as poverty, human rights, revolutions and relations with the United States. The course also examines modern Latin American culture through literature, art and religion.

Meets general academic requirement D or H (and W which applies to 294 only).

391, 392. The Mongol Legacy

The Mongol invasions changed the societies of Eastern Europe, the Middle East, and East Asia. The Mongol armies swept away long-established states and introduced new political arrangements and ideologies. This course will investigate the rise and fall of the Mongol world empire, with special emphasis on how these developments affected the states and peoples of the Middle East. The conquests of Genghis Khan in the thirteenth century followed a pattern established by earlier Eurasian steppe empires. Conquest was not the

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only legacy of the Mongols, and we will study the social, cultural, economic, and political aspects of the nomadic invasions. The period of study is bracketed by the rise of the Mongol world empire at one end, and the conquests of Tamerlane at the other.

Meets general academic requirements H and D (and W which applies to 392 only).

393, 394. The Arab-Israeli Conflict

Every day the news is filled with stories of the violent struggle between Israel and the Arabs. This course will examine the origins and development of that conflict. We will discuss a range of topics including the emergence of Zionism, pan-Arabism, and Palestinian nationalism, the wars between Israel and the Arab states, the rise of terrorist groups, the role of the world community and especially the United States, and the continuing efforts to find a peaceful settlement to the region's problems. Particular emphasis will be placed on the diversity of perspectives regarding the conflict, its history, and potential solutions.

Meets general academic requirements H and D (and W which applies to 394 only).

395, 396. Sultans, Harems and Slaves: The Ottoman Empire

This course will examine the history of the Ottoman Empire, from its rise in the mid-14th century to its demise in the early 20th century. We will trace the development of the Ottoman state from a small warrior principality on the frontiers of Byzantium, to a multi-ethnic, multi-religious, world empire ruling the Middle East, Southeast Europe and the Mediterranean. We will consider Ottoman state institutions, relations with other states – Muslim and Christian, minority rights and communal conflict, the impact of the rise of the European Great Powers, the development of nationalisms, and the emergence of national successor states in all regions of the former empire.

Meets general academic requirements D and H (and W which applies to 396 only).

RESEARCH AND INTERNSHIP COURSES

Special Topics

An analysis of challenging and significant issues in history; courses designed to enable the student to comprehend both historical meaning of these issues and their contemporary significance.

500-549. History Seminar

Designed to examine in depth a wide range of topics of an historical nature. Topics of seminars are announced prior to registration. Semester and full-year seminars are offered and are open to both majors and non-majors.

Prerequisite: HST 100-149 Introduction to History and HST 400 Historical Methods

960. History Internship

A limited number of internships are available for qualified seniors in such areas as museum and archival work. Special arrangements for such assignments must be made through the department head.

970. History Independent Study/Research

Open to qualified students upon approval of the department head.

GEOGRAPHY (GEO)

101. World Geography

An introduction to the basics of physical and cultural geography, including climate, vegetation, landforms, language, economy, and religion, and the study of the physical and cultural geographical features of the various regions of the earth.

Meets general academic requirement D.

HISTORY/GOVERNMENT

Directors: Professors Christopher Herrick and John Malsberger

The History/Government interdisciplinary major is designed for the student who seeks an extensive experience in both history and political science, rather than a single major in one or the other discipline. The major focuses on two goals: (1) exposure to selected courses in the American and international areas; (2) understanding of the complementary nature of historical and political analyses of significant social, political and historical issues in the American national and international environment. The major is designed as a preparation for students interested in applying to law school, interdisciplinary graduate study or graduate study in either history or government.

Students in this major may not enroll any history or political science courses on a pass-fail basis. To continue as a major, the student must maintain a 2.000 grade point average in all courses attempted in the program.

Majors may satisfy the writing intensive course requirement for the major in history or political science.

Major Requirements

Prerequisite:

HST 100-149 Introduction to History
PSC 103 Introduction to Comparative Government & International Relations
OR
PSC 104 Introduction to Democracy

Paired Courses: Four pairs chosen from the list of American and International Study Pairs (students must choose at least 1 pair from each American and International Study)

A. American Study:

PSC 250 or 251 Modern American Political Thought **AND**
HST 233 or 234 American Cultural and Intellectual History Since 1900

PSC 321 or 322 Constitutional Law I **OR**
PSC 323 or 324 Constitutional Law II **OR**
PSC 325 or 326 Civil Rights & Liberties **AND**
HST 323 or 324 Constitutional History of the United States

PSC 211 or 212 American Parties & Politics **AND**
HST 227 or 228 Twentieth Century America I: 1900-1945 **OR**
HST 229 or 230 Twentieth Century America II: 1945-Present

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PSC 216 or 217 Environmental Politics & Policy Making **OR**
PSC 359 or 360 Political Economy & Philosophy of Environmentalism **OR**
PSC 330 or 331 Comparative & International Environmental Policies **AND**
HST 341 or 342 Environmental History of the United States

B. International Study:

PSC 232 or 233 Governments of East Asia **AND**
HST 271 or 272 Modern China **OR**
HST 273 or 274 Modern Japan

PSC 244 or 245 Governments & Politics of Latin America **AND**
HST 291 or 292 Colonial Latin America **OR**
HST 293 or 294 Modern Latin America

PSC 341 or 342 American Foreign Policy **AND**
HST 321 or 322 History of American Foreign Policy

PSC 230 or 231 European Politics & Government **AND**
HST 373 or 374 Europe & the Era of the First World War **OR**
HST 375 or 376 Europe & the Era of the Second World War **OR**
HST 243 or 244 Modern France **OR**
HST 245 or 246 Modern Germany

PSC 248 or 249 Government and Politics of the Middle East **AND**
HST 277 or 278 Modern Middle East

Electives:

Two advanced courses (a seminar may be included) chosen from either department.

INTERNATIONAL STUDIES

Director: Professor Christopher W. Herrick

Assistant Professors: Hashim, McRae

The international studies major integrates the perspectives of political science, economics, business, and history in an effort to provide the student with a more structured approach to a comprehensive understanding of the complex and interdependent nature of political, social, and economic factors which shape behavior in the international system. Five concentrations are offered which permit the student to focus in a given area of interest: (1) Conflict and Peace Studies; (2) Environmental Issues; (3) Global Trade and International Business; (4) Global Interdependence; or (5) a uniquely designed specialized concentration.

The major prepares the student for careers in foreign service, the intelligence community, international business, the international policy-making community, related

research fields, as well as law and teaching. Students are encouraged to pursue one or two semesters in education abroad programs approved by the faculty advisor; some major requirements may be satisfied in this manner. A 2.000 grade point average in all courses must be maintained to remain a major in the program. Majors may satisfy the writing intensive course requirement in political science; history; economics; or languages, literatures and cultures.

Major Requirements

The major consists of six core courses plus six courses in either one of the four designated concentrations or a specialized concentration.

Core Course Requirements:

PSC 103 Introduction to Comparative Government & International Relations
ECN 101 Principles of Macroeconomics
ECN 102 Principles of Microeconomics
PSC 239 or 240 International Law & Organization
PSC 339 or 340 Theories of International Relations
PSC 345 or 346 Senior Capstone Seminar in International Studies

Optimally, the student will follow one of the following four designated concentrations. However, where there is a compelling academic reason, such as education abroad, the student may make substitutions in any of the four concentrations or design a unique concentration (such as European Studies or Developing Nations Studies) in consultation with his or her faculty advisor and the director of the major.

Concentrations

Conflict and Peace Studies

This concentration explores the complexity of conflict and examines which social, institutional and global relationships are able to handle conflicts more efficiently and survive serious conflicts that might destroy less resilient relationships.

Required Courses:

PSC 242 or 243 Introduction to Conflict & Peace Studies

Choose one of the following courses:

PSC 230 or 231 European Politics & Government
PSC 232 or 233 Governments of East Asia
PSC 234 or 235 Governments & Politics of Russia & CIS
PSC 237 or 238 Governments & Politics of Africa
PSC 244 or 245 Governments & Politics of Latin America
PSC 248 or 249 Governments & Politics of the Middle East

Choose four (4) of the following:

ECN 336 or 337 Economic Growth & International Development
HST 217 or 218 Revolution & the Birth of Modern Europe
PSC 246 or 247 Developing Nations: Societies in Transition
PSC 252 or 253 War & Justice

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PSC 341 or 342 American Foreign Policy
PSC 343 or 344 International Political Economy

Environmental Issues

This concentration focuses on developing an understanding of fundamental international institutions, attitudes, and values and the environmental context within which political and economic crises are rooted. It provides students with the opportunities to acquire a basic knowledge of the politics, accommodations, and strategies required to address problems which flow from environmental crises.

Choose six (6) of the following:

ECN 245 or 246 Environmental Economics
ECN 249 or 250 Economics of Natural Resources & Sustainability
PSC 216 or 217 Environmental Politics & Policy Making
PSC 246 or 247 Developing Nations: Societies in Transition
PSC 330 or 331 Comparative & International Environmental Policies
PSC 359 or 360 Political Economy & Philosophy of the Environment

Choose one of the following courses:

PSC 230 or 231 European Politics and Government
PSC 232 or 233 Governments of East Asia
PSC 234 or 235 Governments & Politics of Russia & CIS
PSC 237 or 238 Governments & Politics of Africa
PSC 244 or 245 Governments & Politics of Latin America
PSC 248 or 249 Governments & Politics of the Middle East
PSC 341 or 342 American Foreign Policy
GEO 101 World Geography

Global Interdependence

This concentration examines how political power shapes economic outcomes and is, in turn, constrained by the same economic outcomes. It focuses on international actors such as the state, global corporations, international organizations, as well as subnational actors and international relations revolving around such global issues as debt, trade, finance, and the environment.

Choose six (6) of the following:

ECN 334 or 335 Trade & Competition in the Global Economy
HST243 or 244 Modern France: The Unmaking of a Nation **OR**
HST 245 or 246 Modern Germany **OR**
HST 255 or 256 The British Empire/Commonwealth Rise and Decline
PSC 246 or 247 Developing Nations: Societies in Transition
PSC 341 or 342 American Foreign Policy
PSC 343 or 344 International Political Economy

Choose one of the following courses:

PSC 230 or 231 European Politics & Government
PSC 232 or 233 Governments of East Asia
PSC 234 or 235 Governments & Politics of Russia & CIS

PSC 237 or 238 Governments & Politics of Africa
PSC 244 or 245 Governments & Politics of Latin America
PSC 248 or 249 Governments and Politics of the Middle East
COM 208 or 209 Communication in the Global Community
ECN 342 or 343 Comparative Economic Systems
ECN 346 or 347 International Integration & Institutions

Global Trade and International Business

This concentration grounds the student in the following: (1) the principles of global trade and development; (2) the conditions in which international business operates within specific geographic regions. In addition it provides the student with a grounding in the coordinate skills and principles of international business.

Choose six (6) of the following. ACT 101 Financial Accounting must be completed prior to any of the other business or economics courses listed below.

ACT 101 Financial Accounting
BUS 235 or 236 Management
BUS 239 or 240 Marketing
ECN 237 or 238 Corporation Finance

One of the six must be in the following group:

PSC 230 or 231 European Politics & Government
PSC 232 or 233 Governments of East Asia
PSC 234 or 235 Governments & Politics of Russia & CIS
PSC 237 or 238 Governments & Politics of Africa
PSC 244 or 245 Governments & Politics of Latin America
PSC 248 or 249 Governments & Politics of the Middle East

Another one of the six must be from the following courses:

BUS 341 or 342 Global Marketing
BUS 351 Entrepreneurial Studies
HST 243 or 244 Modern France: The Unmaking of a Nation
HST 245 or 246 Modern Germany
HST 271 or 272 Modern China
HST 273 or 274 Modern Japan
HST 293 or 294 Modern Latin America

Recommendations for Environmental Issues Concentration

It is strongly recommended that students following the Environmental Issues concentration meet their science requirements by completing any of the following:

ESC 111 Topics in Environmental Science
ESC 113 Environmental Science I
ESC 114 Environmental Science II

Recommendations for Study Away from Campus

Students are strongly urged, in consultation with their faculty advisor, to plan their major early in their career at Muhlenberg so that space can be provided for important out-of-classroom learning such as the Washington Semester, internships, and education abroad programs.

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Recommended Language Courses

International studies majors are strongly encouraged to demonstrate competence in a language other than English through Advanced Conversation & Composition. Students may complete one of two required writing intensive courses with one of the following:

- FRN 303 or 304 Advanced French Conversation & Composition
- GRM 303 or 304 Advanced German Conversation & Composition
- RUS 303 or 304 Advanced Russian Conversation & Composition
- SPN 303 or 304 Advanced Spanish Conversation & Composition

In addition, students may fulfill the general academic requirement in historical studies with one of the following courses:

- FRN 320 or 321 French Civilization
- GRM 220 or 221 German Civilization
- SPN 320 or 231 Civilization of Spain
- SPN 322 or 323 Civilization of Latin America

Finally, international studies majors may find the following courses useful:

- FRN 310 or 311 Business French
- GRM 310 or 311 Business German
- SPN 310 or 311 Business Spanish

Recommended Math Course

Students in the Global Trade and International Business Concentration are strongly urged to meet the general academic requirement in reasoning with MTH 104 Statistical Methods.

Honors in International Studies

A student may work for Honors beginning in the spring semester of their junior year. Students who fulfill the following conditions will be awarded honors at Commencement:

1. A 3.500 grade point average in international studies.
2. Enrollment in two independent studies offered by members of departments participating in the international studies major.
3. A grade point average in the two independent studies of no less than 3.250.
4. The submission and approval of an Honors essay as the culmination of one of the two independent studies. This essay must be of substantial length (approximately 25 pages) and be based upon an appropriate volume of primary and secondary research.
5. Passing of an oral defense of the project conducted by members of the departments participating in the International Studies major.

JEWISH STUDIES (Minor only)

Director: Assistant Professor Hartley Lachter

The interdisciplinary Jewish Studies minor gives students a basic grounding in the history, literature, thought and primary language of Jewish civilization. The minor prepares students for future graduate work and for a critical appreciation of Jewish civilization. In conjunction with a major in political science or history, it also prepares students for future work in such fields as Middle Eastern studies or Jewish history. Required courses are flexible in order to tailor the minor to student needs.

Minor Requirements

The minor consists of six courses, approved by the faculty advisor, selected from the following:

- ENG 360 or 361 Jewish American Writing
- HBW 204 Intermediate Hebrew II
- HBW 430 Hebrew Literature in Translation
- HST 393 or 394 The Arab-Israeli Conflict
- HST 201 or 202 The Ancient Near East
- HST 277 or 278 Modern Middle Eastern History
- REL 109 The Jewish Christian Relationship
- REL 211 or 212 Understanding the Hebrew Scriptures
- REL 219 or 220 Paths in Jewish Thought
- REL 221 or 222 Jewish Community Throughout the Ages
- REL 310-319 Topics in the Bible
- REL 320 Religious Extremism: Violence, Politics & Religion
- REL 335 The Holocaust & Its Impact
- PSC 248 or 249 Governments & Politics of the Middle East

LANGUAGES, LITERATURES & CULTURES

Head of Department: Joan F. Marx

Professors: Adams, Kipa, Wixon

Associate Professors: Birgel, Iskold, Perfetti, Sutherland

Director of the Language Learning Center: Luba Iskold

Assistant Professors: Beibe, Ketchum

Lecturers: Bachochin, Buitrago, Danielson, Stilin, Trauger, Zanchettin

The department offers students the opportunity of acquiring or advancing communication skills in the French, German, Hebrew, Italian, Latin, Russian, and Spanish languages. Degree programs focusing on literatures, cultures, and societies

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through the medium of their own language are available in French, German, and Spanish. Students of German may also select the interdisciplinary German Studies option. A concentration in Russian is provided through the Russian Studies program. All courses and programs contribute to the students' general liberal education by giving it a broader, as well as an international dimension. In addition, the department's Language Learning Center, a state-of-the-art technological facility, provides computer-based, multi-media instructional material as well as short-wave, cable and satellite reception for student use in support of these programs.

The department strongly encourages students to participate in a study abroad experience. The College, through the Lehigh Valley Association of Independent Colleges, offers summer programs abroad in German, Italian and Spanish as well as semester programs in France and Germany. Qualified students desiring to spend their junior year abroad may enroll in approved programs sponsored by other colleges and universities. For further details, students should consult with the head of the department, their faculty advisor, as well as with the Office of International Programs. Applications for approval to study abroad must usually be filed with the Office of International Programs no later than the beginning of the spring semester of the preceding academic year.

Placement and Exemption

All students must take a language placement examination before enrolling for the first semester. The results of the examination will determine the appropriate language course assignment. Students seeking exemption from the language requirement must take an exemption examination during fall semester orientation.

Students who have a native command of any language other than English may apply to the department head for permission to use that language to satisfy the language requirement. Please note, however, that the testing of any language other than the ones offered through the Department of Languages, Literatures and Cultures is subject to the availability of qualified personnel to perform the testing and to evaluate the student's performance.

Major Requirements

To declare a major in French or Spanish, a student must have a grade point average of at least 2.000 in the intermediate language courses, FRN 203 Intermediate French I and FRN 204 Intermediate French II or SPN 203 Intermediate Spanish I and SPN 204 Intermediate Spanish II, or demonstrate an equivalent mastery of the language.

Majors must take a minimum of 9 courses beyond the Intermediate II course, including:

- 301 or 302 Conversation & Composition
- 303 or 304 Advanced Conversation & Composition (native speakers may be exempted)
- At least 4 courses in literature

FRN 303 or 304 Advanced French Conversation & Composition and SPN 303 or 304 Advanced Spanish Conversation & Composition normally serve as prerequisites to all courses numbered 400 or higher. All majors must maintain a grade point average of at least 2.000 in all courses attempted in the department. The Advanced Conversation & Composition course fulfills the College's writing intensive course requirement for all majors.

Students interested in German have three options: a major in German Language and Literature, as described below, or a major or minor in German Studies. Students majoring in German Language and Literature must successfully complete GRM 204 Intermediate German II and any previous language courses with a grade point average of at least 2.000 or demonstrate an equivalent command of the language. Majors complete nine courses beyond GRM 204 Intermediate German II, including GRM 301 or 302 German Conversation & Composition; GRM 303 or 304 Advanced German Conversation & Composition (native speakers may be exempted); GRM 400 Introduction to German Literature; GRM 253 or 254 Masterpieces of German Literature II; GRM 316 or 317 German Cinema; GRM 220 or 221 German Civilization; one of the German genre courses (GRM 412 German Prose, GRM 413 German Drama, or GRM 414 German Lyric Poetry) plus two additional courses from the program offerings. All majors in German Language and Literature must maintain a grade point average of at least 2.000 in all courses attempted in the major. Normally, GRM 221 German Civilization will fulfill the College's writing intensive course requirement in the major. The major track in German Language and Literature should be selected by students seeking teacher certification in German. This option requires a grade point average of at least 3.000 in all courses attempted in the major.

Students majoring in Russian Studies must successfully complete RUS 204 Intermediate Russian II and any previous language course with a grade point average of at least 2.000 or demonstrate an equivalent command of the language. All majors must maintain a grade point average of at least 2.000 in all courses attempted in the major.

Minor Requirements

A minor in French or Spanish will consist of 6 courses beyond the Intermediate II course, including:

- 301 or 302 Conversation & Composition
- 303 or 304 Advanced Conversation & Composition
- At least 2 courses in literature

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Students must maintain at least a 2.000 grade point average in all courses for the minor. The Advanced Conversation & Composition course fulfills the College's writing intensive requirement for all minors.

Teacher Certification

Students seeking certification in the teaching of French, German or Spanish in elementary or secondary schools must apply for admission to the program through their faculty advisor no later than the end of the sophomore year. They must maintain a grade point average of at least 3.000 in all courses attempted in the major at Muhlenberg and demonstrate fluent command of the spoken and written language. In addition to the requirements stated above, French and German secondary certification candidates are required to complete the FRN 320 or 321 French Civilization or GRM 220 or 221 German Civilization, as appropriate. Candidates for certification in secondary Spanish are required to complete SPN 320 or 321 Civilization of Spain and SPN 322 or 323 Civilization of Latin America, and SPN 305 or 306 Advanced Spanish Grammar & Translation, two courses in Spanish literature, and two courses in Spanish American literature.

FRENCH (FRN)

101 & 102. Elementary French I & II

1 course unit each

An introduction to basic grammar and vocabulary as well as communication skills in French within its cultural contexts. Students will use a variety of authentic text and media resources to acquire and enhance linguistic skills. The first semester is designed for students with no knowledge of, or with a weak background in French, the second—for students with limited, but residual previous exposure to French. Assignment by placement test. Four class hours per week plus Language Learning Center assignments.

203 & 204. Intermediate French I & II

1 course unit each

An accelerated review of basic French grammar through speaking, reading, writing and other linguistically appropriate activities. The introduction of more advance grammatical structures and a variety of authentic text and multimedia resources will enhance the students' linguistic skills and sociocultural awareness of the French speaking world. The development of functional skills and communicative ability is emphasized. Students also acquire the linguistic tools needed to continue learning French as it pertains to their fields of interest. Assignment by placement test. Three class hours per week plus Language Learning Center assignments.

301, 302. French Conversation & Composition

This course provides intensive practice in conversational French, centered on cultural aspects of the French-speaking world. French and francophone movies serve as the thematic backdrop for in-class discussions, oral presentations, and papers emphasizing correct usage of French linguistic and grammatical structures. This course also focuses on building vocabulary and idiomatic expressions, improving research techniques including proper dictionary use, and expanding students' conversational strategies and variety of expression in conversational and written modes. Offered fall semester.

Prerequisite: FRN 204 Intermediate French II

Meets general academic requirement when offered as 302.

303, 304. Advanced French Conversation & Composition

A continuation of FRN 301, 302 French Conversation & Composition, but with more emphasis on formal writing skills: description, narration, opinion, analysis. Through the study of examples of each genre, students learn the stylistic and linguistic devices appropriate to each before writing their own essays. Advanced grammar study, translation and vocabulary building are additional aspects of this course, since many of the errors students at this level make in their speaking/writing stem from inaccurate translations from English. During the second half of the course, students will read and discuss a contemporary novel dealing with family and social issues in contemporary France for conversational practice as well as an examination of the previously studied genres in the first half of the course.

Prerequisite: FRN 301 or 302 French Conversation & Composition

Meets general academic requirement W when offered as 304.

310, 311. French for the Professions

Using real-life cases and scenarios, this course introduces students to business practices in France and the francophone world. Contacts with local professionals, both inside and outside of the classroom, allow students to explore the numerous possibilities of using their French linguistic and cultural knowledge beyond the academic arena (such as working for companies with international offices, volunteering with health organizations in French-speaking countries, providing translation services, and so forth). This course focuses on acquiring the proper writing, analytical, and oral presentational skills necessary to succeed in such careers. In addition to linguistic training, students learn techniques for cross-cultural analysis vital to conducting business in France or in other countries around the world. Offered in alternate years (spring semester).

Prerequisite: FRN 204 Intermediate French II

Meets general academic requirement W when offered as 311.

320, 321. French Civilization

Beginning with the prehistoric cave paintings of Lascaux and ending with the present Fifth Republic, this course traces the major periods in the civilization of France through a survey of its geographical, historical, social, literary and artistic heritage. Taught in French.

Prerequisite: FRN 301 or 302 French Conversation & Composition

Meets general academic requirement H (and W which applies to 321 only).

330, 331. Francophone Cultures of Africa & the Caribbean

An introduction to the diverse cultures of the francophone world, specifically of the French-speaking African and Caribbean countries. Beginning with the period of French colonization, students will explore the development of various historical, social, political and artistic aspects of contemporary francophone culture through film, literature, magazines, the internet, and other multi-media materials. Taught in French.

Prerequisite: FRN 301 or 302 French Conversation & Composition

Meets general academic requirement D (and W which applies to 331 only).

410. Origins of Love in Medieval & Renaissance France

In this course we will consider how love was “invented” in Europe beginning with the 11th century. We will consider how nascent views of love influenced gender relations as well as how they intersected with the institution of marriage and social attitudes about marriage. We will learn how our ideas about love are not universal but rather an historical product. We will also be able to see where some of our ideas about relationships between the sexes come from and wonder about how it is they have endured. We will primarily look at literary texts such as courtly love lyric, the courtly romance and the later fabliaux and farces that introduce a much “earthier” element into the question of love. We will also study some historical events and consider conduct manuals or theological treatises bearing on social institutions such as marriage. Along the way, we will consider the relationship between historical and literary documents as well as what it meant to be a medieval “author.” Taught in French.

Prerequisite: FRN 303 or 304 Advanced French Conversation & Composition

Meets general academic requirement L.

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411. Images of Grandeur in Seventeenth-Century France

In this course we will look at the important developments occurring in art, history, literature, and society in late sixteenth- and seventeenth century France. Through the study of the great writers, philosophers, and moralists of this period, we will examine closely how cultural and political change influenced and transformed the literary masterpieces of this “grand siècle” in French history. Questions of human nature as philosophized by moralists, tragic and comedic theatre, fables, folktales, and moral essays will focus the readings and discussions of the evolutionary changes occurring at this time in French history. Taught in French.

Prerequisite: FRN 304 Advanced French Conversation & Composition

Meets general academic requirement L.

412. The Enlightenment in France

The 18th century begins with the demise of Louis XIV, the king who represents France’s past glory; it ends with the French Revolution, the cataclysmic event which heralds a new and different society, as France looks toward the future. What is the individual’s place in society and in the universe? How do we and should we live together as social beings? Such questions are central to this Age of Enlightenment. Our study focuses on *les Philosophes*, especially on Montesquieu, Diderot, Voltaire and Rousseau. Taught in French.

Prerequisite: FRN 303 or 304 Advanced French Conversation & Composition

Meets general academic requirement L.

413. From Nature’s Charms to Soot-Filled Streets: 19th-Century French Literature

In reaction to the 18th-century emphasis of the Enlightenment on scientific progress for the good of humanity, 19th-century Romanticism emphasized the individual and the *mal de siècle*. Political unrest following the French Revolution and changing regimes and republics led writers to champion politics and social causes in their works, reflecting the Realist tradition as they documented the industrial era, the ascendancy of the *bourgeoisie* and the plight of the worker. Readings include works by Balzac, Stendhal, Flaubert, Maupassant, Zola, Baudelaire. Taught in French.

Prerequisite: FRN 303 or 304 Advanced French Conversation & Composition

Meets general academic requirement L.

414. Literary Reflections of Crises & Cataclysms in 20th-Century France

Twentieth-century France saw one crisis after another: the Dreyfus affair, two world wars, the dissolution of her colonial empire and new patterns of immigration, and the events of May ’68. This course looks at the changing face of France in modern times as it is reflected in the literary movements and works that were spawned by these different crises and cataclysms. Readings may include works by Proust, Gide, the Surrealists, Camus, Sartre, Beckett, Ionesco, Ernaux, among others. Taught in French.

Prerequisite: FRN 303 or 304 Advanced French Conversation & Composition

Meets general academic requirement L.

GERMAN (GRM)

LANGUAGE COURSES

101 & 102. Elementary German I & II

1 course unit each

An introduction to basic grammar and vocabulary of, as well as communication skills in German within its cultural contexts. Students will use a variety of authentic text and media resources to acquire and enhance linguistic skills. The first semester is designed for students with no knowledge of, or with a weak background in German, the second—for students with limited, but residual previous exposure to German. Assignment by placement test. Four class hours per week plus Language Learning Center assignments.

203 & 204. Intermediate German I & II

1 course unit each

An accelerated review of basic German grammar through speaking, reading, writing and other linguistically appropriate activities. The introduction of more advanced grammatical structures and a variety of authentic text and multimedia resources will enhance the students' linguistic skills and sociocultural awareness of the German speaking world. The development of functional skills and communicative ability is emphasized. Students also acquire the linguistic tools needed to continue learning German as it pertains to their fields of interest. Assignment by placement test. Three class hours per week plus Language Learning Center assignments.

301, 302. German Conversation & Composition

Exercises in spoken and written German designed to increase accuracy, and freedom and facility of expression. Topics of contemporary interest will be selected for presentation and discussion.

Prerequisite: GRM 204 Intermediate German II

Meets general academic requirement W when offered as 302.

303, 304. Advanced German Conversation & Composition

Continuation of GRM 301, 302 German Conversation & Composition. Advanced exercises in spoken and written German, including the study of idiomatic expressions, review of persistent grammatical difficulties, and stylistic analysis.

Prerequisite: GRM 301 or 302 German Conversation & Composition

Meets general academic requirement W when offered as 304.

310, 311. Business German

Designed to broaden the student's command of oral and written German by emphasizing terms and expressions used in the German business environment.

Prerequisite: GRM 301 or 302 German Conversation & Composition

Meets general academic requirement W when offered as 311.

LITERATURE AND CULTURE COURSES

220, 221. German Civilization*

Introduces students to major trends in the development of various aspects of German culture including literature, music, art, government, and economics from early times to the present. Emphasis on the last two centuries and on the German speaking areas (FRG, former GDR, Austria, Switzerland). Taught in English.

Meets general academic requirement H (and W which applies to 221 only).

251, 252. Masterpieces of German Literature I*

Readings and discussion of selected masterpieces of German literature from the medieval period to the age of Naturalism. Concentration on major works of literature which have influenced the course of development of German literary history, thought and culture. Introduction to the terminology as well as the methods and techniques of literary analysis. Emphasis on the development of a sense of appreciation of literature as art. Taught in English.

Meets general academic requirement L (and W which applies to 252 only).

253, 254. Masterpieces of German Literature II*

Readings and discussion of selected masterpieces of German literature from the age of Naturalism to the present. Concentration on major works of literature which have influenced the course of development of German literary history, thought and culture. Emphasis on genres, themes, traditions, reading sensitivity and personal response. Taught in English.

Meets general academic requirement L (and W which applies to 254 only).

* These courses contain an additional language component for students pursuing a degree in German Language and Literature. Those students will meet with the instructor for an additional session per week when the subject matter will be discussed in German.

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316, 317. German Cinema

A survey of German films from *The Cabinet of Dr. Caligari* to contemporary works with special emphasis on the Golden Age of Weimar cinema and the so-called New German Cinema (Fassbinder, Herzog, Wenders, Sanders-Brahms and less well known directors). Through a close analysis of these films, the student will gain an understanding and appreciation of cinematic techniques as well as the cultural, social and political background which shaped these works. Taught in English.

Meets general academic requirement A or H (and W which applies to 317 only).

355, 356. The Faust Theme in Literature, Music & Art

Reading, analysis and discussion of selected major literary versions of the Faust theme, with comparative and contrastive excursions into its expression in the aesthetic modes of film, music and art. Taught in English.

Meets general academic requirement L (and W which applies to 356 only).

400. Introduction to German Literature

A chronological survey of German literature from its beginnings to the present with emphasis on its periodization. Introduction to literary terminology and to methods and techniques of literary analysis. Readings will include selections from prose, drama, and poetry. Taught in German. Required of all majors in German Language and Literature, who should roster this course first in the literature sequence, if possible. Offered in alternate years.

Prerequisite: GRM 301 or 302 German Conversation & Composition

Meets general academic requirement L.

412. German Prose

A survey of German prose. Close readings and interpretations of selected *Novellen* and novels from Goethe to Grass. Taught in German. Alternates with GRM 413 German Drama and GRM 414 German Lyric Poetry. Offered every third year.

Prerequisite: GRM 301 or 302 German Conversation & Composition

Meets general academic requirement L.

413. German Drama

A survey of German drama from Lessing to Handke. Close readings and interpretations of selected representative works. Taught in German. Alternates with GRM 412 German Prose and GRM 414 German Lyric Poetry. Offered every third year.

Prerequisite: GRM 301 or 302 German Conversation & Composition

Meets general academic requirement L.

414. German Lyric Poetry

A survey of German lyric poetry from the medieval period to the present. Close readings of texts by Goethe, Schiller, Heine, Mörike, Rilke and others. Taught in German. Alternates with GRM 412 German Prose and GRM 413 German Drama. Offered every third year.

Prerequisite: GRM 301 or 302 German Conversation & Composition

Meets general academic requirement L.

HEBREW (HBW)

101 & 102. Elementary Hebrew I & II

1 course unit each

An introduction to basic grammar and vocabulary of, as well as communication skills in Hebrew within its cultural contexts. Students will use a variety of authentic text and media resources to acquire and enhance linguistic skills. The first semester is designed for students with no knowledge of, or with a weak background in Hebrew, the second—for students with limited, but residual previous exposure to Hebrew. Assignment by placement test. Four class hours per week plus Language Learning Center assignments.

203 & 204. Intermediate Hebrew I & II

1 course unit each

An accelerated review of basic Hebrew grammar through speaking, reading, writing and other linguistically appropriate activities. The introduction of more advanced grammatical structures and a variety of authentic text and multimedia resources will enhance the students' linguistic skills and sociocultural awareness of the Hebrew speaking world. The development of functional skills and communicative ability is emphasized. Students also acquire the linguistic tools needed to continue learning Hebrew as it pertains to their fields of interest. Assignment by placement test. Three class hours per week plus Language Learning Center assignments.

430. Hebrew Literature in Translation

A survey of Hebrew literature from the post-biblical era of the second century B.C.E. to the period of emergent modernism in the seventeenth century C.E. Readings embrace the genres of prose fiction, drama, and selections from the Talmud and medieval and religious prose, poetry, and prayers.

Meets general academic requirement L.

ITALIAN (ITL)

101 & 102. Elementary Italian I & II

1 course unit each

An introduction to basic grammar and vocabulary of, as well as communication skills in Italian within its cultural contexts. Students will use a variety of authentic text and media resources to acquire and enhance linguistic skills. The first semester is designed for students with no knowledge of, or with a weak background in Italian, the second—for students with limited, but residual previous exposure to Italian. Assignment by placement test. Four class hours per week plus Language Learning Center assignments.

203 & 204. Intermediate Italian I & II

1 course unit each

An accelerated review of basic Italian grammar through speaking, reading, writing and other linguistically appropriate activities. The introduction of more advanced grammatical structures and a variety of authentic text and multimedia resources will enhance the students' linguistic skills and sociocultural awareness of the Italian speaking world. The development of functional skills is emphasized. Students also acquire the linguistic tools needed to continue learning Italian as it pertains to their fields of interest. Assignment by placement test. Three class hours per week plus Language Learning Center assignments.

LATIN (LTN)

101 & 102. Elementary Latin I & II

1 course unit each

An introduction to basic grammar and vocabulary of, as well as communication skills in Latin within its cultural contexts. Students will use a variety of authentic text and media resources to acquire and enhance linguistic skills. The first semester is designed for students with no knowledge of, or with a weak background in Latin, the second—for students with limited, but residual previous exposure to Latin. Assignment by placement test. Four class hours per week plus Language Learning Center assignments.

203 & 204. Intermediate Latin I & II

1 course unit each

An accelerated review of basic Latin grammar through reading and other linguistically appropriate activities. The introduction of more advanced grammatical structures and a variety of authentic text and multimedia resources will enhance the students' linguistic skills and sociocultural awareness of the Roman legacy. Students also acquire the linguistic tools needed to continue learning Latin as it pertains to their fields of interest. Assignment by placement test. Three class hours per week plus Language Learning Center assignments.

RUSSIAN (RUS)

101 & 102. Elementary Russian I & II

1 course unit each

An introduction to basic grammar and vocabulary of, as well as communication skills in Russian within its cultural contexts. Students will use a variety of authentic text and media resources to acquire and enhance linguistic skills. The first semester is designed for students with no knowledge of, or with a weak background in Russian, the second—for students with limited, but residual previous exposure to Russian. Assignment by placement test. Four class hours per week plus Language Learning Center assignments.

203 & 204. Intermediate Russian I & II

1 course unit each

An accelerated review of basic Russian grammar through speaking, reading, writing and other linguistically appropriate activities. The introduction of more advanced grammatical structures and a variety of authentic text and multimedia resources will enhance the students' linguistic skills and sociocultural awareness of the Russian speaking world. The development of functional skills and communicative ability is emphasized. Students also acquire the linguistic tools needed to continue learning Russian as it pertains to their fields of interest. Assignment by placement test. Three class hours per week plus Language Learning Center assignments.

301, 302. Russian Conversation & Composition

Exercises in spoken and written Russian designed to increase freedom and facility of expression. General review of grammar, readings from contemporary literature and periodicals will be selected for presentation and discussion.

Prerequisite: RUS 204 Intermediate Russian II

Meets general academic requirement W when offered as 302.

303, 304. Advanced Russian Conversation & Composition

Advanced exercises in spoken and written Russian. In-depth studies of idiomatic expressions, increased acquisition of vocabulary, correct usage of grammar, comprehension and stylistic analysis of contemporary literature.

Prerequisite: RUS 301 or 302 Russian Conversation & Composition

Meets general academic requirement W when offered as 304.

305, 306. Readings in Russian Literature

An introduction to Russian literature from Pushkin to the present with emphasis on developing the students' command of language skills. Selected readings in Russian will include poetry, prose, and drama. Offered in alternate years.

Prerequisite: RUS 204 Intermediate Russian II

Meets general academic requirement L (and W which applies to 306 only).

320, 321. Russian Culture & Civilization

An examination of distinguished works of painting, architecture, sculpture, music, theatre, and film from the early eighteenth to the late twentieth century. An analysis of elements of style and intellectual thought underlying the development of the work of art in its cultural and historical contexts. Through a study of the works of Russia's great creative minds, students will develop familiarity with various styles of artistic expression, including neo-classicism, romanticism, realism, avant-garde, and socialist realism. There will be field trips to art exhibits and guest speakers in class. Offered in alternate years. Taught in English.

Meets general academic requirement A (and W which applies to 321 only).

401. Nineteenth Century Russian Literature in Translation

A study of the development of nineteenth-century Russian literature through the works of Pushkin, Gogol, Lermontov, Goncharov, Turgenev, Dostoevsky, and Chekhov. Short stories, novels, poems, plays, and literary criticism will be viewed from the historical, social, political, and philosophical aspects.

Meets general academic requirement L.

402. Twentieth Century Russian Literature in Translation

Short stories, novels, poems, plays and literary criticism from the pre-revolutionary and post-revolutionary periods, including various literary movements such as symbolism, futurism, acmeism, Socialist Realism, psychological realism. Works from Gorky to Pasternak, Solzhenitsyn and other contemporary authors.

Meets general academic requirement L.

970. Russian Independent Study/Research

Selected research topics in Russian Studies. An independent study in which the student pursues a major research project and composes a substantial research paper under the supervision of department faculty. Open only to seniors.

SPANISH (SPN)

101 & 102. Elementary Spanish I & II

1 course unit each

An introduction to basic grammar and vocabulary of, as well as communication skills in Spanish within its cultural contexts. Students will use a variety of authentic text and media resources to acquire and enhance linguistic skills. The first semester is designed for students with no knowledge of, or with a weak background in Spanish, the second—for students with limited, but residual previous exposure to Spanish. Assignment by placement test. Four class hours per week plus Language Learning Center assignments.

203 & 204. Intermediate Spanish I & II

1 course unit each

An accelerated review of basic Spanish grammar through speaking, reading, writing and other linguistically appropriate activities. The introduction of more advanced grammatical structures and a variety of authentic text and multimedia resources will enhance the students' linguistic skills and sociocultural awareness of the Spanish speaking world. The development of functional skills and communicative ability is emphasized. Students also acquire the linguistic tools needed to continue learning Spanish as it pertains to their fields of interest. Assignment by placement test. Three class hours per week plus Language Learning Center assignments.

301, 302. Spanish Conversation & Composition

Intensive practice of spoken Spanish with emphasis on techniques of oral expression, vocabulary development, and persistent grammatical difficulties. Discussions will be based on contemporary cultural readings, films and other multi-media materials. Offered every semester.

Prerequisite: SPN 204 Intermediate Spanish II

Meets general academic requirement W when offered as 302.

303, 304. Advanced Spanish Conversation & Composition

Focused work in Spanish composition allowing students to develop creative, professional, and academic writing styles. Emphasis is placed on structure, style and content as well as grammar. Classic and contemporary texts, films and other multi-media resources will provide stylistic models as well as a cultural context for writings. Offered every semester.

Prerequisite: SPN 301 or 302 Spanish Conversation & Composition

Meets general academic requirement W when offered as 304.

305, 306. Advanced Spanish Grammar & Translation

Intensive study of advanced Spanish grammar and syntax with a focus on the cultural and linguistic differences between Spanish and English. Through oral and written work, grammatical concepts will be applied to the development of translation skills. Taught in Spanish. Offered in alternate years.

Prerequisite: SPN 303 or 304 Advanced Spanish Conversation & Composition

Meets general academic requirement W when offered as 306.

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310, 311. Business Spanish

Practice in oral and written Spanish at an advanced level. Compositions, dictations, oral reports, and readings emphasizing Spanish business vocabulary (banking, importing and exporting, stock market, etc.). Offered in alternate years.

Prerequisite: SPN 204 Intermediate Spanish II

Meets general academic requirement W when offered as 311.

320, 321. Civilization of Spain

An introduction to contemporary Spanish life, with its intellectual, economic and social phenomena as well as its regional aspects. The course also surveys the artistic, architectural and historical heritage of Spain. Given in Spanish. Offered every year during the fall semester.

Prerequisite: SPN 301 or 302 Spanish Conversation & Composition or equivalent..

Meets general academic requirement H (and W which applies to 321 only.)

322, 323. Civilization of Latin America

An introduction to contemporary Latin-American life, with its intellectual, economic and social phenomena as well as its regional aspects. The course also surveys the artistic, architectural and historical heritage of Latin America. Given in Spanish. Offered every year during the spring semester.

Prerequisite: SPN 301 or 302 Spanish Conversation & Composition or equivalent..

Meets general academic requirement D or H (and W which applies to 323 only).

410. Medieval & Renaissance Spanish Literature

A study of representative works of Spanish literature from the Middle Ages through the Renaissance. Emphasis is placed on the literary analysis of the major genres of epic poetry, the fable, the picaresque novel and pre-Lope de Vega theater. Students will explore theme and theory within the social, historical, philosophical, and political context of the period. Taught in Spanish. Offered in alternate years.

Prerequisite: SPN 303 or 304 Advanced Spanish Conversation & Composition

Meets general academic requirement L.

411. Cervantes

A careful reading of Cervantes' **Don Quijote**, the novel that broke stylistically and philosophically into the modern age. Other works by Cervantes will be included, allowing the student to gain a greater understanding of the essential interconnectedness of the different literary genres as well as insight into the politics and ideas of a crucial and defining moment in Spanish history. Taught in Spanish. Offered in alternate years.

Prerequisite: SPN 303 or 304 Advanced Spanish Conversation & Composition

Meets general academic requirement L.

412. Spanish Theater in the Golden Age

A study of the development of 16th and 17th century Spanish drama through the works of major playwrights. Emphasis is placed on the structure, language, and major themes of the plays as well as the manner in which they reflect the rapidly changing society of that period. Taught in Spanish. Offered in alternate years.

Prerequisite: SPN 303 or 304 Advanced Spanish Conversation & Composition

Meets general academic requirement L.

413. From the Golden Age to the Silver Age

A study of the plays, poetry, and novels of 18th and 19th century Spain, reflecting the social, political, and ideological changes leading up to and throughout the Industrial Revolution. Special attention will be paid to the different roles of writer, narrator, and reader through textual clues. Taught in Spanish. Offered in alternate years.

Prerequisite: SPN 303 or 304 Advanced Spanish Conversation & Composition

Meets general academic requirement L.

414. Contemporary Spanish Literature

A study of contemporary texts and development of tools with which to interpret the culture and literature of today's – and tomorrow's – Spain. Emphasis is placed on literary reflections of the changes to the concept of national identity in Spain spanning the harrowing realization in 1898 that Spain was no longer host to an empire, through the harsh repression and massive emigration under Franco's rule, to the new reality of Spain as home to fast-growing immigrant communities. Taught in Spanish. Offered in alternate years.

Prerequisite: SPN 303 or 304 Advanced Spanish Conversation & Composition or equivalent.

Meets general academic requirement L.

415. Spanish American Literature I

Reading and discussion of selections from Indoamerican writers of the Pre-Columbian era and from Spanish American writers from the fifteenth through the nineteenth centuries. Emphasis is placed on an understanding of the technical development of the various genres within each literary period as well as on the thematic content of the work as it relates to the period's historical, political, social and philosophical context. Taught in Spanish. Offered in alternate years.

Prerequisite: SPN 303 or 304 Advanced Spanish Conversation & Composition

Meets general academic requirement D or L.

416. Spanish American Literature II

Reading and discussion of poetry, essays and short stories by Spanish-American writers from the end of the nineteenth century to the present. Emphasis is placed on an understanding of the technical development of the various genres within the period as well as on the thematic content of the work as it relates to the period's historical, political, social and philosophical context. Taught in Spanish. Offered in alternate years.

Prerequisite: SPN 303 or 304 Advanced Spanish Conversation & Composition or equivalent

Meets general academic requirement D or L.

417. Contemporary Spanish American Novel

An in-depth study of the development of the novel in both the pre- and post- "boom" periods of the Spanish-American narrative. Emphasis is placed on an analysis of the literary techniques and thematic aspects of the works in relation to the various artistic and philosophical movements of the twentieth and twenty-first centuries. Taught in Spanish. Offered in alternate years.

Prerequisite: SPN 303 or 304 Advanced Spanish Conversation & Composition

Meets general academic requirement D or L.

418. Hispanic Literature & Film

An analysis of the relationship between literature and film, focusing on texts from Spain and/or Spanish America and their film adaptations. Issues to be discussed include film adaptation as a cultural construct; narrative voice in literature and film; the transformation of the written word to a visual image; and the relationship between politics, literature and film. Taught in Spanish. Offered in alternate years.

Prerequisite: SPN 303 or 304 Advanced Spanish Conversation & Composition

Meets general academic requirement L.

419. Border Literature

An exploration of contemporary narratives by Latino writers in the United States who focus on the border experience, understood as both a geographical and cultural phenomenon. Emphasis will be placed on the analysis of the literary techniques employed in the development of the narrative form within its political, social and cultural context. Topics include issues of class, ethnicity and gender. Taught in Spanish. Offered in alternate years.

Prerequisite: SPN 303 or 304 Advanced Spanish Conversation & Composition

Meets general academic requirement D and L.

500-549. Spanish Seminar

LVAIC SUMMER STUDY ABROAD PROGRAM

In cooperation with the Lehigh Valley Association of Independent Colleges (LVAIC), Muhlenberg students have the opportunity to participate in a summer study program abroad in German and Spanish (2 units). Each of the following programs offers a total cultural experience. Therefore, no partial credit is allowed. The classroom instruction is reinforced through tutorials and augmented by numerous cultural and social events, including visits and excursions to selected points of interest. A proficiency examination will determine the level at which a student will enroll. Summer programs in French and Italian are also available. Students interested in any of these programs should consult with the head of the department.

LVC GRE Elementary German Language & Culture Abroad

LVC SPE Elementary Spanish Language & Culture Abroad

Intensive study of the fundamentals of German or Spanish with emphasis on speaking, listening and reading comprehension, as well as basic writing skills, supplemented by an introduction to major aspects of contemporary German or Spanish civilization.

LVC GRI Intermediate German Language & Culture Abroad

LVC SPI Intermediate Spanish Language & Culture Abroad

Intensive practice of conversational German or Spanish, rapid review of basic grammar, the reading and analysis of moderately difficult texts, as well as the development of rudimentary writing skills, supplemented by the study of selected aspects of contemporary German or Spanish civilization.

LVC GRA Advanced German Language & Culture Abroad

LVC SPA Advanced Spanish Language & Culture Abroad

Intensive practice in spoken and written German or Spanish aimed at providing the student with extensive proficiency of expression and the ability to discriminate linguistic usage. Emphasis on idiomatic expressions and an introduction to stylistics. Reading and analysis of more difficult texts. Supplemented by in-depth study of selected aspects of contemporary German or Spanish civilization.

LVAIC SEMESTER IN BONN

In cooperation with the Lehigh Valley Association of Independent Colleges (LVAIC), Muhlenberg students have the opportunity to participate in a spring semester study abroad program in Bonn, Germany. The program offers advanced students of German an integrated academic and cultural experience. The classroom instruction is reinforced through tutorials. Students interested in this program should consult with the head of the department.

MATHEMATICAL SCIENCES

Head of Department: Associate Professor David Nelson

Professor: W. Dunham

Associate Professors: P. Dunham, McGuire, Rykken

Assistant Professor: Cicconetti,

Visiting Assistant Professor: Bowers

Lecturer: Dodson

Mathematics courses offered are structured to meet the overlapping needs of students who fall into one or more of these categories: those who wish to develop their appreciation of the power and beauty of mathematics; those who intend to pursue graduate work in mathematics, or other related fields; those whose interests will exploit the applications of mathematics in the natural sciences, social sciences, and other quantitative areas; and those who plan to enter the teaching profession in mathematics.

The curriculum is designed so that a course of study can be custom fitted to that individual's goals and interests, while at the same time exposing the student to several of the facets of the mathematical sciences.

In addition, we recognize our responsibility to students with other majors, and offer courses designed to equip those students with the mathematical knowledge and tools required and/or useful in their chosen fields of study.

Major Requirements

Required Courses:

MTH 121 Calculus I

MTH 122 Calculus II

MTH 210 Transition to Abstract Mathematics

MTH 223 Calculus III

MTH 226 Linear Algebra

Five additional mathematics courses chosen from among MTH 227 Differential Equations and courses numbered 300 or above and to include:

MTH 326 Abstract Algebra **OR**

MTH 337 Mathematical Analysis

In addition, the student must demonstrate knowledge of a structured programming language and complete a course outside of mathematics which involves a mathematical approach—e.g., PHY 211 General Physics I or ECN 333 or 334 Forecasting Methods. A major must maintain a 2.000 grade point average in the courses for the major. Students who are planning to attend graduate school are urged to satisfy the language requirement with French, German or Russian.

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Majors will complete a writing intensive course by enrolling in MTH 210 Transition to Abstract Mathematics.

Honors Program in Mathematics

At commencement, Mathematical Sciences awards honors in mathematics to qualified students. The requirements for honors are: (a) a grade point average in the mathematics major of at least 3.500, (b) an overall grade point average of at least 3.300, and (c) successful completion of nine course units numbered 200 or above (but not to include MTH 215 Discrete Structures), to include at least two of MTH 326 Abstract Algebra, MTH 332 Mathematical Statistics II, MTH 337 Mathematical Analysis.

Minor Requirements

Required Courses:

MTH 121 Calculus I
MTH 122 Calculus II
MTH 223 Calculus III
MTH 226 Linear Algebra

At least two more mathematics courses numbered 200 or above.

Knowledge of a structured programming language is also required. The student must maintain a 2.000 grade point average in courses for the minor.

Teacher Certification

Required courses for students seeking certification for teaching mathematics in the secondary schools include:

MTH 121 Calculus I
MTH 122 Calculus II
MTH 210 Transition to Abstract Mathematics
MTH 223 Calculus III
MTH 226 Linear Algebra
MTH 326 Abstract Algebra
MTH 331 Mathematical Statistics I
MTH 342 Advanced Geometry

Two electives in mathematics chosen from among MTH 227 Differential Equations and courses numbered 300 or above.

One cognate course in another area which uses a mathematical approach

MTH 251 Landmarks of Greek Mathematics **OR**

MTH 252 Landmarks of Modern Mathematics

CSI 110 Computer Science I **OR**

Knowledge of a structured programming language.

The student must maintain a 2.500 grade point average in courses for the major in order to meet teacher certification requirements.

101. Topics in Mathematics

Topics selected from various areas of mathematics such as discrete mathematics, logic, number systems, geometry, probability, and graph theory. The course is designed to give the student an appreciation of mathematics as an integral part of our culture as well as applications to various other disciplines.

Meets general academic requirement G.

104. Statistical Methods

An introduction to statistical methods, including descriptive statistics, sampling, estimation, hypothesis testing, correlation and regression, and the chi-square distribution. Three meetings and one laboratory per week. Students may not receive credit for both MTH 104 Statistical Methods and MTH 144 Introduction to Statistical Analysis. Students who have completed MTH 121 Calculus I are required to have the permission of the department.

Meets general academic requirement G

114. Fundamentals of Mathematics

A study of fundamental mathematical principles underlying the concepts of number and shape. Topics include number systems, number theory, measurement systems, geometry, and functions with emphasis on applications and problem solving. Four meetings per week.

Prerequisite: EDU 101 Foundations of Education

Meets general academic requirement G.

121. Calculus I

Differentiation of algebraic and transcendental functions, application of the derivative to related rates, max-min problems, and graphing. Introduction to integration, the Fundamental Theorem of Calculus. Four meetings per week.

Prerequisite: 3.5 years of high school mathematics

Meets general academic requirement G.

122. Calculus II

A continuation of MTH 121 Calculus I. Applications of the integral, integration techniques, infinite sequences and series, L'Hôpital's Rule, improper integrals. Four meetings per week.

Prerequisite: MTH 121 Calculus I

Meets general academic requirement G.

144. Introduction to Statistical Analysis

Fundamental problems and principles of probability, discrete and continuous distributions and random variables, sampling distributions, parameter estimation and confidence intervals, hypothesis testing, regression analysis, analysis of variance, and non-parametric statistics. Students may not receive credit for both MTH 104 Statistical Methods and MTH 144 Introduction to Statistical Analysis. Three meetings and one laboratory per week.

Prerequisite: MTH 121 Calculus I

Meets general academic requirement G.

210. Transition to Abstract Mathematics

An introduction to abstract mathematical thought, with emphasis on understanding and applying definitions, writing arguments to prove valid statements, and providing counterexamples to disprove invalid ones. Topics may include logic, introductory set theory, and elementary number theory, but the focus is on the process of reasoning rather than any particular subject or subdiscipline. It is strongly recommended that mathematics majors complete this course by the end of the sophomore year.

Prerequisite: MTH 122 Calculus II

Meets general academic requirement W

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215. Discrete Structures

Topics from logic, combinatorics, recursion, relations, trees and graphs, and finite state automata, computability and algorithm design.

Prerequisite: MTH 121 Calculus I

223. Calculus III

Geometry of the plane and space including vectors and surfaces. Multivariable calculus including partial derivatives, Taylor's Theorem in two variables, line and surface integrals, and Green's Theorem. Four meetings per week.

Prerequisite: MTH 122 Calculus II

226. Linear Algebra

Matrices and systems of linear equations, determinants, real vector spaces and inner product spaces, linear transformations, eigenvalue problems, applications. Four meetings per week.

Prerequisite: MTH 122 Calculus II

227. Differential Equations

A study of the theory, methods of solution, and applications of differential equations and systems of differential equations. Topics will include the Laplace Transform, some numerical methods, and applications from the physical sciences and geometry.

Prerequisite: MTH 122 Calculus II

251. Landmarks of Greek Mathematics

0.5 course unit

This course examines selected masterpieces of classical mathematics, including Euclid's *Elements*, Archimedes' determination of the surface area of a sphere, Heron's formula for triangular area, and Ptolemy's table of chords. Emphasis will be placed on the brilliance of the mathematics and the reverberations of these ideas down to the present age. Offered in alternate years. Does not satisfy a major/minor requirement.

Prerequisite: one course in calculus

252. Landmarks of Modern Mathematics

0.5 course unit

This course examines selected mathematical masterpieces from the Renaissance to the dawn of the twentieth century. Theorems to be considered include those of Cardano, Newton, the Bernoullis, Euler, Gauss and Cantor. Besides the mathematics, the course focuses on the context in which the theorems were discovered and the lives of the discoverers. Offered in alternate years. Does not satisfy a major/minor requirement.

Prerequisite: one course in calculus

314. Applied Mathematics & Modeling

Models describing physical and economic conditions will be constructed, analyzed, and tested. The computer will be used in model verification. Offered in alternate years.

Prerequisite: MTH 226 Linear Algebra and CSI 110 Computer Science I

318. Operations Research

Linear programming, the transportation model, dynamic programming, decision analysis, game theory, and inventory and queuing models. Offered in alternate years.

Prerequisite: MTH 226 Linear Algebra

326. Abstract Algebra

A study of the algebraic structures of groups, rings, fields, and integral domains. Offered in alternate years.

Prerequisite: MTH 210 Transition to Abstract Mathematics and MTH 226 Linear Algebra

331. Mathematical Statistics I

Probability, discrete and continuous random variables, the binomial, normal, Poisson, chi-square, t, and F distribution. Offered in alternate years.

Prerequisite: MTH 210 Transition to Abstract Mathematics and MTH 223 Calculus III

332. Mathematical Statistics II

A continuation of MTH 331 Mathematical Statistics I. Topics will include estimation, hypothesis testing, regression, correlation, and analysis of variance. Offered in alternate years.

Prerequisite: MTH 331 Mathematical Statistics I.

334. Numerical Analysis

The numerical solutions of equations, numerical integration and differentiation, systems of equations, curve fitting, numerical solutions of ordinary and partial differential equations. Offered in alternate years.

Prerequisite: MTH 226 Linear Algebra and CSI 110 Computer Science I

337. Mathematical Analysis

Rigorous treatment of the real number system and functions of one variable, the Riemann integral, and proof of the Fundamental Theorem of Calculus. Offered in alternate years.

Prerequisites: MTH 210 Transition to Abstract Mathematics and MTH 223 Calculus III

342. Advanced Geometry

An axiomatic approach to Euclidean geometry. The exploration of non-Euclidean geometries, including hyperbolic geometry. The study of transformational geometries. Offered in alternate years.

Prerequisite: MTH 210 Transition to Abstract Mathematics

345. Combinatorics and Graph Theory

This advanced course in discrete mathematics emphasizes counting and finite structures. The material is taken from three broad areas of combinatorics: counting theory, graph theory and design theory. Topics include fundamental laws of counting, generating functions, recursion, partitions, existence and optimization problems, graphs and digraphs, networks, the relationships between graphical invariants, lattices, simple game theory, Latin squares, design and coding theory, and Ramsey Theory.

Prerequisite: MTH 210 Transition to Abstract Mathematics

MUSIC (MUS)

Head of Department: Associate Professor Theodore Conner

Professor: Ovens

Assistant Professor: Follet

Lecturer: Slavin

Pianist-in-Residence: Petit

The major in music develops basic musical skills expected of any serious musician. It will prepare students for advanced work in performance, composition, musicology, theory, music librarianship, church music, arts administration, music sales and publishing, music therapy, college and private teaching, and graduate study. The bachelor of arts with a major in music may be sufficient for initial positions in some of these areas. The music major may be effectively combined with other majors, minors, or special combinations of courses, such as languages, literatures and cultures; business administration; theatre and dance; and communication, to enhance the opportunities for specific employment or graduate programs. For students wishing to

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prepare for teaching music in the public schools, a cooperative program leading to certification is available through Moravian College.

On its own terms, the music program is designed to provide students with a broad and comprehensive background in music, assuring the continuation of learning and achievement, whether in a formal graduate program or not. All of the courses required for the minor are also part of the major.

Students majoring in music require preparation in three distinct areas of study: music theory/composition, music history, and performance. In music theory/composition courses, students develop an understanding of the logical relations that exist between notes in melodies, counterpoint, chords and harmonic progressions. Students explore the repertoire of various historical periods and genres as well as the cultural context that lead to their development in music history. The focus of applied music is the growth of technical and interpretive skills on a specific instrument, including voice.

Major Requirements

The music major offers three areas of concentrated study: Performance, Music Theory/Composition, and Music History. Each of the concentrations includes the same core curriculum plus an area of specialization. The core curriculum includes three courses in music theory, two courses in music history and four semesters of applied study on the student's primary instrument. Completion of the core curriculum will ensure that every music major receives a thorough grounding in the three disciplines that comprise the study of music.

Core Curriculum

- MUS 111 Music Theory I
- MUS 112 Music Theory II
- MUS 211 Music Theory III
- MUS 221 Music History I: Medieval, Renaissance, Baroque
- MUS 222 Music History II: Classic, Romantic, 20th Century
- MUS 901 Individual Applied Music I
- MUS 902 Individual Applied Music II
- MUS 903 Individual Applied Music III
- MUS 904 Individual Applied Music IV

In addition to the core curriculum, each music major will complete three course units in one of the three concentrations: Performance, Music Theory/Composition, or Music History.

Performance Concentration

Students selecting the performance concentration will choose three course units in electives from the following areas:

One course unit in performance on the student's primary instrument:

MUS 905 Individual Applied Music V
MUS 906 Individual Applied Music VI

One course unit numbered between 200 and 299 in music theory/composition from:

MUS 212 Form & Analysis
MUS 213 Counterpoint
MUS 214 Techniques of the Avant Garde

One course unit in music history from:

MUS 224 History of the Symphony
MUS 225 World Music
MUS 226 American Music
MUS 227 Opera
MUS 228 History of Jazz
MUS 320-326 Music History: Selected Periods
MUS 330 Music History Seminar

Students intending to continue past the Bachelor's Degree in Performance should perform a senior recital. This recital should be planned in consultation with the student's applied music teacher.

Music Theory/Composition Concentration

Students selecting the music theory/composition concentration will choose three course units in electives from the following list. One of these courses must be MUS 212 Form & Analysis, MUS 213 Counterpoint or MUS 214 Techniques of the Avant Garde:

MUS 137 Introduction to Electronic Music
MUS 212 Form & Analysis
MUS 213 Counterpoint
MUS 214 Techniques of the Avant Garde
MUS 311 Orchestration
MUS 312 Jazz Improvisation
MUS 315 Composition Workshop I
MUS 316 Composition Workshop II

Students intending to continue past the Bachelor's Degree in composition should prepare a portfolio of works during their junior and senior years. Students planning on continuing on in Music Theory should prepare a major research paper in consultation with a member of the music faculty during the senior year.

Music History Concentration

Students selecting the music history concentration will choose three course units in electives from the following areas:

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Two course units in music history from:

- MUS 224 History of the Symphony
- MUS 225 World Music
- MUS 226 American Music
- MUS 227 Opera
- MUS 228 History of Jazz
- MUS 320-326 Music History: Selected Periods

One course unit in music history from:

- MUS 330 Music History Seminar

Students intending to continue past the Bachelor's Degree in Music History should prepare a major research paper in consultation with a member of the music faculty during the senior year.

In addition to the core curriculum and concentration requirements, it is strongly recommended that all music majors participate in ensemble work for at least four semesters.

Music Education

There are currently a limited number of music majors who are also participating in the teacher certification program at Moravian College. The requirements for teacher certification are available upon request from the Department of Music. Students intending to enter the music education certification program in collaboration with Moravian College **must** register for MUS 111 Music Theory I during their first semester. It is extremely unlikely any student will be able to complete their studies in four years if they do not follow this advice.

Minor Requirements

Students minoring in music must complete 5 courses as follows:

- MUS 111 Music Theory I
 - MUS 112 Music Theory II
 - MUS 221 Music History I: Medieval, Renaissance, Baroque **OR**
 - MUS 222 Music History II: Classic, Romantic, 20th Century
 - Any other course in music history
 - MUS 901-908 Individual Applied Music (two semesters) **OR**
 - MUS 910 Class Applied Music (two semesters)
- Membership in an appropriate College ensemble is strongly advised in conjunction with this applied study.

MUS 101 Introduction to Music and MUS 104 Workshop in Composition & Improvisation cannot be enrolled to fulfill any major or minor requirements, although they may be useful for some students in preparing for required courses in the major and minor.

The Department of Music encourages students to take whatever music courses interest them. Historical courses are open to students without prerequisite. Applied music may be completed at any level, from beginning to advanced. Courses in electronic music, utilizing advanced equipment, will be of special interest to some.

More advanced study may be undertaken in various areas in music through independent study following requisite preparation and with the permission of the appropriate instructor. Courses in addition to those required for the major may be completed to better prepare for graduate study or to meet certification requirements for public school music teaching. Many advanced courses in music theory and history are offered in alternate years.

101. Introduction to Music

A basic music appreciation course, this one-semester survey examines musical styles from the Renaissance to the Twentieth Century, with emphasis on the Classic and Romantic eras. Highly recommended for all liberal arts students; no music background needed. Reading and listening assignments; concert attendance and reviews. May not be counted toward the music major or minor.

Meets general academic requirement A.

104. Workshop in Music Composition & Improvisation

A “hands-on” introductory experience in music composition and improvisation for the non-major, providing students a basic foundation in the elements of music in order to allow them to explore music as expression and structure. Various notational languages will be used as well as the basic functions of conventional musical notation. The emphasis will be on developing improvisational experiences using traditional and non-traditional instruments. Designed for the musically inexperienced student. Class participation mandatory, with a final project of a composition or an improvisation. May not be counted toward the music major or minor.

Meets general academic requirement A.

111. Music Theory I

A basic course in the materials and structural elements of tonal music: scales, intervals, chords, and the principles of voice-leading and harmonic progression. Development of keyboard skills, sight-singing abilities, and aural perception. No prerequisites, but the ability to read music is assumed.

Meets general academic requirement A.

112. Music Theory II

Continuation of MUS 111 Music Theory I. Use and analysis of non-chord tones, seventh chords, secondary functions, modulation, and small forms. Further development of keyboard, sight-singing, and aural skills.

Prerequisite: MUS 111 Music Theory I or exam

137. Introduction to Electronic Music

A study of the development and practice of electronic music; basic acoustics, the tape studio, musique concrete, tape manipulation, electro-acoustic instruments and modulation techniques. Analysis of electronic music literature and development of an understanding of the synthesizer and associated electronic instruments. Individual and class applications of basic synthesizer techniques in shaping and sound structures. Reading and listening assignments, composition projects.

Meets general academic requirement A.

211. Music Theory III

Chromatic harmony: altered chords, modulation to distant keys. Analysis, figured-bass realization. Introduction to two-part counterpoint in the style of Bach. Dictation, sight-singing, keyboard skills.

Prerequisite: MUS 112 Music Theory II

212. Form & Analysis

A survey of musical forms, from the smallest units of sectional forms (motive, phrase) through binary, ternary, rondo, and sonata forms. Constant analysis of music of all periods embodying various structural principles. Reading and listening assignments; semester project.

Prerequisite: MUS 211 Music Theory III

213. Counterpoint

A study of counterpoint focusing on the contrapuntal practices of the Renaissance and Baroque periods. Analysis and written exercises leading to several composition projects. Readings from historical treatises; secondary source readings and listening assignments.

Prerequisite: MUS 211 Music Theory III

214. Techniques of the Avant Garde

A study of the compositional techniques and styles of the twentieth century. Analysis and written exercises leading to compositional projects in a variety of styles. Reading and listening assignments; semester project.

Prerequisite: MUS 211 Music Theory III

221. Music History I: Medieval, Renaissance, Baroque

The history of musical style from the early Christian period up to the mid-Eighteenth Century: Gregorian chant repertory, the development of polyphony, the Renaissance flowering of sacred and secular vocal music, the rise of national styles in opera and instrumental music, and the culmination of the Baroque period in the music of Bach and Handel. Reading and listening assignments; concert attendance and reviews; semester project. Music background helpful. Required of majors.

Meets general academic requirement A and W.

222. Music History II: Classic, Romantic, 20th Century

Pre-classical styles and schools; the Viennese classicists (Haydn, Mozart); Beethoven and the Romantic expansion of form and technique; beginnings of modernism (Debussy, Stravinsky) and later developments to mid-century and beyond. Reading and listening assignments; concert attendance and reviews; semester project. Music background helpful. Required of majors.

Meets general academic requirement A and W.

224. History of the Symphony

A study of symphonic music ranging from Haydn to Stravinsky. Composers may include Mozart, Beethoven, Mahler, Brahms, Berlioz and others. Readings and listening assignments; semester project.

Meets general academic requirement A.

225. World Music

A study of musics from non-Western cultures. Topics may include the culture, music and musical-theoretical systems of India, China, Japan, Africa and Latin America. Readings and listening assignments; performance projects and semester project.

Meets general academic requirement A or D.

226. American Music

A survey of the vernacular (popular) and cultivated (classical) traditions in American music from the Colonial period through the twentieth century; sacred and secular vocal and instrumental music, the influence of European and African practices in concert music and jazz, and the rise of musical institutions in the context of our developing nation. Reading and listening assignments, concert attendance and reviews, semester project. Offered in alternate years.

Meets general academic requirement A.

227. Opera

A survey of the literary and musical aspects of opera from Monteverdi to Berg, with greatest attention to repertory works by Gluck, Mozart, Rossini, Beethoven, Weber, Wagner, Verdi, Puccini, Debussy, Strauss,

Berg. Reading, listening, and viewing assignments; field trips to performances; reviews; semester project. A music background will be helpful. Offered every three years.
Meets general academic requirement A.

228. History of Jazz

This survey of a uniquely American art form traces jazz roots and origins from late-Nineteenth Century blues and ragtime, the first recordings, the great soloists, composers, and bands of the 1920s, the “swing era” of the 1930s and ‘40s, “modern jazz” of the late ‘40s through the 1960s, and new developments over the last twenty years. Reading and listening assignments; concert attendance and reviews.
Meets general academic requirement A.

311. Orchestration

0.5 course units

A systematic study of the capabilities of the instruments of the orchestra in musical composition. A thorough understanding of these capabilities will be mastered through a study of selected works for solo instruments, chamber works and the study of orchestral literature. Readings and listening assignments; analysis and written exercises; semester project.
Prerequisite: MUS 211 Music Theory III

312. Jazz Improvisation

0.5 course units

A study of improvisational techniques from the Jazz tradition. Readings and listening assignments; analysis and performance projects; semester project.
Prerequisite: MUS 112 Music Theory II

315. Composition Workshop I

0.5 course units

A study of composition in a variety of styles based on the interests of the students and the instructor. Readings and listening assignments; intensive written exercises and compositional projects.
Prerequisite: instructor permission

316. Composition Workshop II

0.5 course units

A continuation of Composition Workshop I in which students will explore a variety of compositional styles and genres. Readings and listening assignments; intensive written exercises and compositional projects.
Prerequisite: instructor permission

320-326. Music History: Selected Periods

An intensive study of music from one of the following periods: Medieval, Renaissance, Baroque, Classical, Romantic or Twentieth Century. The course will include analysis of the repertoire and the cultural context that lead to its development. Readings and listening assignments; analysis and writing assignments; semester project.

Prerequisite: MUS 211 Music Theory III and MUS 221 Music History I: Medieval, Renaissance, Baroque and MUS 222 Music History II: Classic, Romantic, 20th Century

330. Music History Seminar

An intensive study of an area in music history agreed upon by the students and instructor. The course will serve as preparation and guidance for research and a major paper.

Prerequisite: MUS 211 Music Theory III and MUS 221 Music History I: Medieval, Renaissance, Baroque and MUS 222 Music History II: Classic, Romantic, 20th Century

921. Beginning Vocal Techniques

0.25 course units

Vocal technique development for students involved in the Moravian Music Education Certification Program.
Prerequisite: instructor permission

922. Beginning Woodwind Techniques

0.25 course units

Woodwind technique development for students involved in the Moravian Music Education Certification Program.

Prerequisite: instructor permission

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923. Beginning Brass Techniques

0.25 course units

Brass technique development for students involved in the Moravian Music Education Certification Program.

Prerequisite: instructor permission

926. Beginning Percussion Techniques

0.25 course units

Percussion technique development for students involved in the Moravian Music Education Certification Program.

Prerequisite: instructor permission

927. Beginning Piano Techniques

0.25 course units

Piano technique development for students involved in the Moravian Music Education Certification Program.

Prerequisite: instructor permission

928. Beginning Music Technology Techniques

0.25 course units

Music technology technique development for students involved in the Moravian Music Education Certification Program.

Prerequisite: instructor permission

Applied Music

Study in voice, piano, organ, and the various string, brass, woodwind and percussion instruments. One 45 minute lesson per week for 13 weeks and a minimum of five hours practice per week. Attendance at recitals and concerts required. Department permission required. An additional fee is charged for this instruction and is not refundable following the add-drop period. Applied music may not be enrolled on a pass-fail basis. It may be enrolled as audit only when it constitutes an overload, when it is not the initial term of applied music study and with instructor and department head permission. Two semesters of Applied Music may be used to complete the general academic requirement in the Fine Arts (A). For full-time students, there is no overload fee charged for course units resulting from applied music.

901-908. Individual Applied Music

0.5 course units

Individual lessons. Fee: \$375.

911-918. Individual Applied Music – Second Area

0.5 course units

Individual lessons in another area. Fee: \$375.

910. Class Applied Music

0.5 course units

Class study in voice or piano, as available. Fee: \$187.50.

Ensembles

Be aware. Ensembles are offered only as zero course unit experiences graded on a satisfactory (S) or unsatisfactory (U) basis.

060. College Choir

Open to all students by audition only. Rehearsals are two times weekly. Fall and Spring concerts of sacred and secular music, a cappella or accompanied, and the annual Candlelight Carol Services.

061. Wind Ensemble

The Wind Ensemble provides performance opportunities in traditional and contemporary concert music for interested and qualified wind and percussion players. Open to all students with permission of the director. Rehearsals are held twice weekly. Participation in all performances required.

062. Chamber Orchestra

The Chamber Orchestra consists of 20-30 string players plus winds, brass and percussion and performs works from the 18th, 19th and 20th centuries. The ensemble performs one concert each semester.

063. Collegium Musicum

This ensemble is dedicated to the performance of Medieval, Renaissance and Baroque music. The members of the Collegium study early music performance practices and perform on period instruments. The ensemble performs one concert each semester.

064. Jazz Ensemble

The Jazz Ensemble is a select group of 20-25 members which performs a wide variety of jazz styles. There is one rehearsal a week and several performances take place during the year. Each year the ensemble features a national jazz artist in concert.

065. Jazz Improvisation Ensemble

This group is devoted to the study and performance of improvised music. Students participating in the ensemble explore traditional, progressive and experimental forms of jazz in order to develop a wide range of approaches to improvisation. The ensemble performs one concert each semester.

066. Opera Workshop

The Opera Workshop is designed to give advanced vocalists an opportunity to explore and perform operatic solo and ensemble pieces. Members should be concurrently enrolled for Individual Applied Music and College Choir. Open to advanced students by instructor permission.

067. Chamber Singers

A small (24) choral group selected from the members of the College Choir, by audition.

068. Chamber Ensemble

Various types of small groups including flute ensemble, percussion ensemble, etc.

NATURAL SCIENCE

The natural science major provides a broad-based program of studies in the sciences that includes basic training in biology, chemistry, physics and calculus and enables students to achieve advanced training in two of these areas. Since its inception, the program has been the major of choice for many students who have gone on in the health professions to become medical doctors, osteopaths, chiropractors, dentists, nurses, occupational therapists and many other professionals. Because the major is very flexible, it has also been useful for students interested in a variety of other careers such as elementary school teaching, patent law, technical writing and as a second major for many in the social sciences and humanities. Muhlenberg has several programs that can be combined with this major (see Cooperative Programs for details): (1) a 3-2 program with Columbia School of Nursing, (2) a program in dentistry with the University of Pennsylvania School of Dental Medicine, (3) a program in medicine

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with Drexel University School of Medicine and Lehigh Valley Hospital, (4) a program with the School of Forestry and Environmental Studies at Duke University.

Major Requirements

Required Courses:

Eight basic courses in the sciences:

BIO 151 Principles of Biology II: Cells & Organisms

BIO 152 Principles of Biology III: Molecules & Cells

CHM 103 General Chemistry I

CHM 104 General Chemistry II

MTH 121 Calculus I

MTH 122 Calculus II **OR**

MTH 144 Introduction to Statistical Analysis

PHY 211 General Physics I

PHY 212 General Physics II

Four courses numbered 200 or greater in biology, chemistry, physics, and mathematical sciences that focus the student's studies. Two courses in each of two departments.

Two courses numbered 300 or greater that continue the study in one or both of the selected departments.

Students may sharpen their focus by completing additional courses in the sciences. Students seeking careers in the health professions should continue their focus in biology and chemistry. Biochemistry, genetics, microbiology, cell biology, metabolism, immunology and organic chemistry are among the suggested courses.

NEUROSCIENCE (NSC)

Director: Assistant Professor Jeremy Teissere

Professors: Harring, Schick, Snodgrass

Associate Professors: McCain, Rudski, Wightman

Assistant Professors: Fadem, Gardner, Kussmaul, Meier, Wolfe

Lecturer: Byrne

Neuroscience is the study of the neural underpinnings of mind and behavior. Scholarship in neuroscience often locates itself at the intersection of philosophical approaches to the mind and empirical approaches to the brain. Thus, the neuroscience curriculum at the College has been designed to highlight those resonances and counterpoints between existing departments that yield new perspectives on the roots of behavior. The major also provides students the opportunity to develop strong foundational training in the natural sciences, philosophy, and psychology within the context of the liberal arts. Given the breadth of training within the major and the

diversity of expertise among the supporting faculty, the neuroscience student is especially prepared for careers in research, medicine, and industry in a variety of fields.

Major Requirements

To declare and be retained as a neuroscience major, a student must maintain a 2.000 grade point average based on all neuroscience, biology, philosophy, and psychology courses attempted.

Required Courses:

Neuroscience majors must complete 15 courses: four in neuroscience, three electives, and eight cognates.

1. Four core courses in neuroscience

- NSC 101 Mind and Brain
- NSC 208 Biological Psychology (cross listed with PSY 208 Biological Psychology)
- NSC 248 Neurobiology (cross listed with BIO 248 Neurobiology)
- NSC 448 Advanced Topics in Neuroscience (cross listed with BIO 448: Advanced Topics in Neuroscience)

NSC 101 Mind and Brain, NSC 208 Biological Psychology, and NSC 248 Neurobiology may be taken at any time and in any order. NSC 448 Advanced Topics in Neuroscience is designed to be taken during the fourth year as the final requirement of the major.

2. Eight cognate courses

- BIO 150 Principles of Biology I, BIO 151 Principles of Biology II, and BIO 152 Principles of Biology III
- CHM 103 General Chemistry I and CHM 104 General Chemistry II
- MTH 121 Calculus I
- PSY 101 Introduction to Psychology
- PHL 238 Philosophy of Mind

In addition to these cognate requirements, students interested in graduate study in neuroscience or the health professions are strongly encouraged to complete a year of organic chemistry and a year of introductory physics. Competency in statistical methods is also strongly suggested.

3. Three electives in neuroscience. At least two lists must be represented.

List A

- BIO 205 Cell Biology I
- BIO 215 Genetics
- BIO 220 Biochemistry

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BIO 240 Developmental Biology
BIO 245 Comparative Anatomy
BIO 250 General Physiology
BIO 265 Ethology
BIO 405 Cell Biology II
BIO 412 Molecular Biology
BIO 421 Transmission EM
BIO 460 Physiological and Behavioral Ecology

List B

PHL 237 Philosophy of Science
PHL 327 Linguistic Philosophy
PHL 329 Phenomenology
PHL 331 Epistemology
PHL 332 Metaphysics

List C

PSY 201 Learning and Behavior
PSY 202 Social Psychology
PSY 203 Personality Psychology
PSY 207 Sensation and Perception
PSY 213 Abnormal Psychology
PSY 301 Cognitive Processes
PSY 318 Psychopharmacology

List D

NSC 970 Neuroscience Research/Independent Study

101. Mind and Brain

This course serves as a multidisciplinary introduction to the major themes and research problems of neuroscience. The development of neuroscience as an empirical discipline will be traced by studying the writing of key biologists, psychologists, and philosophers in the field. Class discussions will center on the early history of research in neuroanatomy and neurophysiology, philosophical problems of consciousness, experimental approaches to consciousness and self-knowledge, and dysregulations of mind and brain. A laboratory will explore systems of consciousness from a physiological and computational perspective. Three class hours and two laboratory hours per week.

Meets general academic requirement S.

208. Biological Psychology (Cross-listed with PSY 208)

A study of the systems and behavioral manifestations of nervous system function in human beings and animals. The mechanisms underlying sensory and motor processes, learning, emotion, and innate behavior patterns will be examined.

Prerequisite: PSY 101 Introductory Psychology

Meets general academic requirement S.

248. Neurobiology (Cross-listed with BIO 248)

An exploration of the molecular, cellular, physiological, and developmental foundations of nervous system function. Topics discussed will include the ionic and electrical properties of neurons, the biochemistry of synaptic signaling, neuronal and synaptic plasticity, basic neuronal circuits, the development and target specification of neurons, and neuroendocrine regulation. Relevant primary literature will be introduced through class discussions and independent critical analyses. A laboratory will introduce the research methods of neurophysiology, anatomy, and neuropharmacology and will culminate in a student-driven independent project. Three class hours and three laboratory hours per week.

Prerequisite: BIO 152 Principles of Biology III

448. Advanced Topics in Neuroscience (Cross-listed with BIO 448)

This course serves as a graduate-style seminar for the senior neuroscience major and will stress reading and discussion of primary texts and timely issues within the field. Topics discussed may include: synaptic mechanisms in memory and learning, analysis of simple neuronal circuits, cortical architecture, neuroendocrinology, the neural basis of sleep and dreaming, pain mechanisms and integration, neurogenetics, and/or the relationship of neuronal physiology and behavior.

Prerequisites: BIO 152 Principles of Biology III. NSC/BIO 248, NSC 101, and NSC/PSY 208 are recommended.

Meets general academic requirement W.

970. Neuroscience Research/Independent Study

Open to majors in neuroscience. Proposals for research or independent study will be developed in consultation with a faculty sponsor and are subject to approval by the program director. May be enrolled more than once, but only one enrollment may be counted toward the major in neuroscience.

PHILOSOPHY (PHL)

Head of Department: Professor Christine Sistare

Professors: L. Hass, Schick, Schlecht

Associate Professors: DiQuinzio, M. Hass

Assistant Professors: Coutinho, Gardner, Mackenzie

Philosophy attempts to arrive at a comprehensive and coherent view of the world by critically examining our most basic beliefs about the nature of reality, knowledge, persons, and values. It involves not only scrutinizing those concepts that define who we are and give direction to our lives, but also examining the assumptions and methodologies that are fundamental to other disciplines. In learning how to conduct such an examination, the student of philosophy develops skills in clarifying concepts, analyzing arguments and assessing positions. The understanding and skills gained through the study of philosophy are valuable to all individuals and are highly prized by every profession, including law, medicine, government and business.

For those primarily interested in political philosophy, an interdisciplinary Philosophy/Political Thought major is available (see page 205). This major focuses on American and Western European political philosophy, integrating appropriate political science and philosophy courses to permit a comprehensive examination of the Western state and its function, justifications, and ideological foundations. The major is recommended to pre-law students and students interested in graduate study in this area.

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Philosophy course offerings are divided into various subcategories: Introductory Courses, Logic, Contemporary Issues, History of Philosophy, Twentieth Century Philosophy, Systematic Areas, Seminars, and Individualized Instruction. The introductory courses provide a broad-based exposure to the sorts of issues that have stimulated philosophical inquiry. The logic courses furnish the student with the reasoning skills necessary to critically analyze and logically formulate arguments. The contemporary issues courses explore difficult moral issues that confront us in our personal and professional lives. The courses in the history of philosophy examine the philosophical ideas that have helped to shape the course of Western civilization, while courses in twentieth century philosophy examine major developments in the past century. The courses in systematic areas investigate the theoretical foundations of their respective subject areas. Seminar courses are also offered regularly; individualized instruction includes independent study and internship opportunities.

Courses in philosophy are numbered as follows:

- 100 through 199 – open to all students; designed as a first philosophy course
- 200 through 299 – normally open only to students beyond the first year of college
- 300 through 399 – previous course work in philosophy required

Major Requirements

A major in philosophy consists of nine courses, not more than one of which can come from Introductory Courses. Included must be:

- One logic course (PHL 111 Formal Logic recommended)
- Two courses in the history of philosophy (normally PHL 221 Ancient Philosophy and PHL 223 Modern Philosophy).
- Either two courses in systematic areas or one course in systematic areas and one course in twentieth century philosophy.
- A departmental seminar

Minor Requirements

A minor in philosophy consists of six courses, not more than one of which can come from introductory courses. Included must be:

- One logic course
- One course in the history of philosophy
- One course in systematic areas

Honors Program

An honors program is available to qualified students. To be considered for acceptance into the honors program, students must have a grade point average of 3.300 or better in courses counting toward the major. Students wishing to complete honors work in Philosophy should declare their interest in writing to the department head before the

end of the fall semester of the junior year. Requirements for departmental honors in Philosophy include writing a substantial paper and defending it orally.

INTRODUCTORY COURSES

102. Theories of Human Nature

A study of various theories about the nature of persons and their place in the universe. What does it mean to be human? What concepts are essential in understanding persons? How are persons related to other things in nature? To each other in society? To God? In what does human happiness or fulfillment consist?

Meets general academic requirement P.

104. Philosophy East & West

A comparison/contrast of some of the great systems of Eastern and Western philosophical thought. Topics will include: selves and persons, immortality and reincarnation, theism and atheism, mysticism and rationalism, perception and illusion, monism and pluralism, being and nothingness.

Meets general academic requirement D or P.

105. Conduct and Character

An introduction to ethics through the study of leading perspectives and familiar moral issues. We engage in moral choice and action every day of our lives, but we also struggle with questions about our moral life. Among the questions the course addresses are: Is there genuine moral truth, or is it all just 'opinion'? What is the relation of conduct to character? What standards might we use in judging conduct or character, and on what are they based? How do these various standards apply to concrete problems in contemporary life? Why should we struggle to be moral, at all?

Meets general academic requirement P.

106. Individual & Society

An introduction to the field of philosophy through an exploration of selected problems in socio-political theory, with special attention to those that confront us in contemporary social life. These might include: the grounds for political authority, the nature of individuals and social groups, our knowledge of the social good, and the comparative roles of reason, power, and wealth in human relations. Specific topics may vary by section and year.

Meets general academic requirement P.

108. Being & Knowing

An examination of various theories of the nature of reality and thought. As human beings we find ourselves in a world—experiencing and thinking. In short, we exist. But what is the meaning of our existence? What other kinds of things exist? Does God exist? Is the mind independent of the body? Do we have free will? Moreover, how are we to proceed with such inquiries? Are there objective standards of judgment? What is knowledge as opposed to mere opinion? Can we have knowledge of reality at all?

Meets general academic requirement P.

LOGIC

110. Critical Thinking

A study of the principles and methods of correct reasoning. The course is designed to promote the development of skills in recognizing, analyzing, and evaluating arguments. Both deductive and non-deductive inferences will be considered; the identification of common fallacies in reasoning will be emphasized.

Meets general academic requirement G.

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111. Formal Logic

The formal analysis and assessment of deductive arguments using modern symbolic logic, including propositional and predicate logic. Four class hours per week.

Meets general academic requirement G.

CONTEMPORARY ISSUES

241. Biomedical Ethics

An examination of the ethical issues raised by such practices as abortion, euthanasia, birth control, life prolonging techniques, human experimentation, recombinant DNA research, and cloning. How might such practices affect the individual and society? Are such practices ethical? Do patients and/or doctors have a right to refuse treatment? What considerations are relevant in making life or death decisions? How should scarce medical resources be allocated?

Meets general academic requirement P.

242. Law & Morality

An examination of issues at the intersection of law and morality. Among possible topics are the legitimate limits of legal control of individuals, the relation of legal validity and moral value, the role of moral reasons in judicial decision making, and the nature of legal justice.

Meets general academic requirement P.

245. Business Ethics

An examination of the ethical problems encountered in business. What obligations do employers have to their employees to provide suitable working conditions, follow fair hiring and promotion procedures, etc.? What obligations do businesses have to consumers to provide product information, use fair advertising techniques, etc.? What obligations do businesses have to the public to conserve limited resources, preserve the environment, etc.?

Meets general academic requirement P.

246. Environmental Philosophy

Examination of several theoretical approaches to the question of human relations with the nonhuman world and to associated questions about valuation, human society, and human morality. Usually these will include: some forms of radical ecophilosophy such as ecofeminism, deep ecology, and social ecology; environmental ethics based in traditional views such as utilitarianism and rights theories; and anthropocentric reformist views on the instrumental value of nature. Attention is given, where possible, to noneuropan perspectives.

Meets general academic requirement P.

HISTORY OF PHILOSOPHY

221. Ancient Philosophy

The beginnings of western philosophy. A study of the enduring philosophical issues in the works of Plato and Aristotle, with attention to their origins in pre-Socratic writings. Consideration will also be given to the development of Hellenistic thought and to the philosophical contributions of Augustine and Aquinas.

Meets general academic requirement P.

223. Modern Philosophy

European philosophical thought during the 17th and 18th centuries. A study of some of the most important attempts to formulate a systematic world-view consistent with modern science and its implications for an understanding of persons, knowledge and society. Included are the continental rationalists: Descartes, Spinoza, and Leibniz; the British empiricists: Locke, Berkeley, Hume, and the critical idealism of Kant.

Meets general academic requirement P.

226. American Philosophy

American philosophical thought during the late 19th and 20th centuries, with special emphasis on pragmatism. Focus will be on the work of Peirce, James, and Dewey, with some attention given to Royce, Santayana, Lewis, and Whitehead. An examination of the philosophical writings and the intellectual and philosophical contexts in which these philosophers worked.

Meets general academic requirement P.

325. Nineteenth Century Philosophy

European philosophical thought during the 19th century. A study of some of the significant issues and projects that emerged in the wake of Kant's "critical" philosophy, and in a society increasingly shaped by scientific and industrial development. Thinkers that may be considered: Hegel, Marx, Kierkegaard, Mill, Nietzsche, and Freud.

Prerequisite: any previous course in philosophy, PHL 223 Modern Philosophy is recommended

TWENTIETH CENTURY PHILOSOPHY

327. Linguistic Philosophy

A study of major movements in twentieth century philosophy arising out of the study of language and meaning. This "linguistic turn" in philosophy includes logical atomism, logical positivism, ordinary language philosophy, and deconstruction. Readings will be drawn from the work of Russell, Wittgenstein, Ayer, Dummett, Quine, and Derrida.

Prerequisite: any previous course in philosophy

329. Phenomenology

In the 20th Century, phenomenology has emerged as a new and powerful philosophical program. At its core is the impulse to reveal the reality which underlies and gets obscured by scientific activity, and "everyday" thinking. But while the thinkers who carry out this project share a similarity of method, their writings reveal a provocative variation in results. What does this mean? And what are the strengths and weaknesses of phenomenology as a method, program, and as a type of argument? We will consider these questions by considering the writings of thinkers such as Husserl, Heidegger, Sartre, Merleau Ponty, Irigaray, Levinas.

Prerequisite: any previous course in philosophy

330. Post Modern Philosophy

In the 1960s post-structuralist philosophy exploded onto the French intellectual scene. By the 1990s the insights, criticisms, and methodologies of its leading thinkers had permeated American intellectual life—most familiarly under the name of "post-modernism." What is this "movement" all about? To what exactly is it responding? What exactly is "deconstruction" and *différance*? Why have these (and other) post-modern insights/practices so dramatically transformed the American academy and its traditional disciplines? We will consider these questions by considering the writing of thinkers such as Derrida, Foucault, Kristeva, Lyotard, Deleuze (and Guattari).

Prerequisite: any previous course in philosophy

Meets general academic requirement W.

SYSTEMATIC AREAS

234. Philosophy of Religion

An examination of the nature of religion, the meaning of religious claims, and the justification of religious beliefs. The views of both religious adherents and critics will be studied. Primary focus will be on the 20th century writings in the attempt to explore the possibilities of intellectually responsible religious commitment in the contemporary world.

Meets general academic requirement P.

236. Philosophy & the Arts

In this course we will think about art—about its nature and its important place in human life. To facilitate this, the course brings together the writings of philosophers and the work of artists from a variety of domains. The goal here is not to intellectualize art, but to understand the intelligence that goes into it, to enrich our experiences of art, and to foster our own creative sensibilities. We will consider famous writings on art by thinkers such as Plato, Aristotle, Tolstoy, Heidegger, and Merleau-Ponty in relation to important works of literature, theatre, painting, architecture, and film.

Meets general academic requirement P.

237. Philosophy of Science

An examination of the goals, methods, and assumptions of modern science. What distinguishes scientific explanations from non-scientific ones? How are scientific theories discovered and confirmed? What criteria of adequacy are used to decide between competing scientific theories? Are all sciences reducible to physics? Has physics proven that the world does not exist independently of our consciousness? Does science give us objective knowledge of the world? Is science a religion?

Meets general academic requirement P.

238. Philosophy of Mind

An inquiry into the nature of mind and an examination of the theoretical foundations of psychology. What is it to have a mind? How are mental states related to physical states? Is psychology reducible to biology? What methodology provides the best approach to understanding the mind? What is a person? Could a computer have a mind or be a person? What is the relationship between language, thought, and reality? Does the language we speak determine how we perceive the world?

Meets general academic requirement P.

239. Political Philosophy

A systematic examination of fundamental issues and concepts in political philosophy. Readings will be drawn from both historical and contemporary major figures in political philosophy. Topics may include: the nature and significance of equality, freedom, justice, power, and community; the meanings and uses in political philosophy of concepts such as human nature, law, rights, utility, and the social contract; the relationship of economic and political structures; the advantages and disadvantages of various forms of government; and questions of methodology in political philosophy.

Meets general academic requirement P.

331. Epistemology

An exploration of the nature, scope, and sources of human knowledge. When and under what conditions do people have knowledge? Do we really know the things that we think we know? Is knowledge acquired by using the senses, the intellect, or both? Although some attention will be paid to the views of historical figures, the focus of the course will be on contemporary issues. Topics may include: skepticism, the problem of analyzing the concept of knowledge, theories about the nature and structure of justification, *a priori* knowledge, feminist theories of knowledge, and the naturalization of knowledge.

Prerequisite: any previous course in philosophy

332. Metaphysics

An inquiry into the ultimate nature of reality and our relationship to it. What sorts of things exist? Does the world consist solely of material objects or does it also contain immaterial objects such as God, souls, or numbers? What is the relationship between the mind and the body? Do humans have free will? Can humans survive the death of their bodies? Do our best theories reveal the truth about reality or do they merely reveal the ideological biases of the dominant group? Topics may include: realism vs. anti-realism; the nature of space and time; persons, minds, and free will; the problem of universals; and the existence of God.

Prerequisite: any previous course in philosophy

333. Ethics

Examination of the theoretical structures and historical movement of predominant western moral theories as well as of recent critical responses to traditional approaches. Perspectives typically covered include: ancient and modern virtue theories, utilitarianism, Kantianism and its contemporary descendants, the critical views of Nietzsche and Marx, and current works from feminist or environmental ethicists. Related ethical issues, such as egoism and relativism, are also addressed.

Prerequisite: any previous course in philosophy

339. Feminist Philosophy

Examination of the historical development and current state of feminist theory, as both a critical perspective and an area of systematic philosophical inquiry. The course will normally include study of feminist epistemology, metaphysics, political theory, and ethics.

Prerequisite: any previous course in philosophy, PHL 221 Ancient Philosophy or PHL 223 Modern Philosophy are recommended

SEMINAR

500-549. Seminar

An investigation into a selected philosophical problem, text, thinker, or movement, carried on by readings, discussions, and papers. The seminar is designed to provide majors, minors, and other qualified students with more than the usual opportunity to do philosophy cooperatively and in depth.

INDIVIDUALIZED INSTRUCTION

960. Philosophy Internship

970. Philosophy Independent Study/Research

PHILOSOPHY/POLITICAL THOUGHT

Directors: Professor Christine T. Sistare and Associate Professor Giacomo Gambino

This interdisciplinary major focuses on American and Western European political philosophy, integrating appropriate political science and philosophy courses to permit a comprehensive examination of the Western state and its functions, justifications, and ideological foundations. Political theory courses are complemented by philosophy courses that examine the basic assumptions that underlie the concept of the state and society in Western history. The major is recommended to pre-law students and students interested in graduate study in this area.

Students in this major may not take any courses in philosophy or political science on a pass/fail basis. To continue as a major, the student must maintain a 2.000 grade point average in all courses attempted in the program. Majors may satisfy the writing intensive course requirement for the major in philosophy or political science.

206 / *Philosophy/Political Thought*

Major Requirements

Prerequisites:

One course chosen from the following:

- PHL 102 Theories of Human Nature
- PHL 105 Conduct & Character
- PHL 106 Individual & Society
- PHL 108 Being & Knowing
- PSC 104 Introduction to Democracy

Political Science Courses:

Choose three:

- PSC 250 or 251 Modern American Political Thought
- PSC 252 or 253 War & Justice
- PSC 351 or 352 Early Western Political Thought
- PSC 353 or 354 Modern Western Political Thought
- PSC 359 or 360 Political Economy & Philosophy of Environmentalism

One additional political science course selected in consultation with the faculty advisor from such courses as:

- PSC 216 or 217 Environmental Politics & Policy Making
- PSC 339 or 340 Theories of International Politics
- PSC 321 or 322 Constitutional Law I

Philosophy Courses:

- PHL 242 Law & Morality

Choose two:

- PHL 221 Ancient Philosophy
- PHL 223 Modern Philosophy
- PHL 333 Ethics

One additional philosophy course selected in consultation with the faculty advisor from such courses as:

- PHL 239 Political Philosophy
- PHL 245 Business Ethics
- PHL 246 Environmental Philosophy

Seminar:

A seminar taken in either philosophy or political science.

PHYSICAL EDUCATION (PED)

Program Director: Associate Professor Linda Andrews

Muhlenberg College maintains a one semester physical education requirement.

Department of Physical Education offerings are taught on both a semester (14 weeks) and quarter (7 weeks) calendar. All students are required to enroll PED 050 Principles of Fitness & Wellness. Physical Education courses are offered as zero course unit experiences graded on a satisfactory (S) or unsatisfactory (U) basis.

Aside from PED 050 Principles of Fitness & Wellness, all other physical education courses are offered on an elective basis and are divided into theory courses, fitness courses, and lifetime skill courses. Fitness courses are those courses that contribute to the basic components of fitness that include cardiovascular endurance, muscular strength and endurance, flexibility, and body composition. Lifetime skill courses contribute to the social and emotional well being of the student by emphasizing recreational competence, lifetime sport skills, and techniques for stress management.

050. Principles of Fitness & Wellness

This course is designed to develop a greater understanding of fitness and wellness concepts in order to achieve the highest potential of personal well-being. The course is divided into a wellness component and a fitness component. The wellness component will emphasize concepts that an individual needs in order to practice behaviors that will lead to positive outcomes in the seven dimensions of wellness: physical, emotional, intellectual, social, environmental, occupational, and spiritual. The fitness component provides the opportunity for individual fitness evaluations using computer analysis. Students will also be introduced to various experiences addressing the cardiovascular, muscular, and flexibility components of fitness.

Meets general academic requirement PE.

100. Foundations of Exercise Science and Wellness

0.5 course unit

This course is designed to examine the basic principles of physical activity and wellness concepts as they relate to psychological, emotional, social, and physical well-being. Readings, lectures, and discussions will cover such issues as personal, family, community health and safety, life long health habits, physical fitness, and the development of motor skills. Additional topics relative to elementary education certification include the role and value of play, games, and sports in child development, substance abuse, conflict resolution and school violence prevention. Students will also have opportunities to participate in fitness and wellness service programs for children in the surrounding community. *For elementary teacher certification candidates. This course replaces the Principles of Fitness and Wellness course for teacher certification candidates and fulfills their physical education requirement. In the event of seats remaining, other students may be added by permission of the instructor.*

Theory Courses

057. Life Guard Training

The primary purpose of this course is to provide lifeguard candidates and lifeguards with the skills and knowledge necessary to keep the patrons of aquatic facilities safe in and around the water. The course content and activities prepare students to recognize emergencies, respond quickly and effectively to emergencies, prevent drowning and other incidents. The course also teaches other skills an individual needs to become a professional lifeguard. American Red Cross Lifeguarding certification will be awarded to those who successfully meet the course requirements. Students must be prepared to demonstrate swimming proficiency during the first class meeting.

208 / *Physical Education*

061. CPR

Emphasis placed on the methods and techniques of the life-saving procedure of cardiopulmonary resuscitation and emergency first aid. Completion of course carries certification. Students may not enroll if they already have a current CPR card.

064. Rape Aggression Defense (RAD)

The RAD system will provide students with the basic knowledge of confrontation principles and personal defense. The course will teach both defensive concepts and defensive techniques against various types of assaults. Issues pertaining to domestic violence will also be addressed.

065. Nutrition for Fitness & Health

This course will provide the student with opportunities to learn about both the basic concepts of nutrition and the impact on health and fitness. Topics will include energy nutrients, micronutrients, sport supplements, fad diets and eating disorders. The format will be mainly lecture with some small group work and individual projects.

066. Water Safety Instructor

Water Safety Instructor is designed to train instructor candidates to teach the American Red Cross Water Safety courses. The American Red Cross's Water Safety Instructor (WSI) certification will be awarded to students who successfully complete the course requirements.

Prerequisites: proficiency in basic swimming skills and knowledge

067. Care & Prevention of Athletic Injuries

This course will discuss the prevention, emergency care, treatment and rehabilitation of injuries. Lab experience will include taping, wrapping and treatment methods. Students will be certified and will have the option of serving as a member of the student athletic first aid staff.

Fitness Courses

Emphasis on the health related components of physical fitness (cardiovascular, muscular strength, muscular endurance, flexibility and body composition).

- PED 031 Weight Training for Women
- PED 046 Yoga
- PED 047 Weight Training
- PED 048 Jogging
- PED 049 Aerobics
- PED 051 Introduction to Physical Conditioning
- PED 052 Cycling
- PED 056 Cross Country Skiing
- PED 058 Swim Fitness
- PED 062 Step Aerobics
- PED 063 Fitness Walking

Lifetime Skills Courses

Emphasis on the mastery of fundamental skills for competency and the enjoyment of healthful activity contributing to physical, social and emotional well-being.

PED 011 Men's Basketball
PED 020 Volleyball
PED 021 Women's Basketball
PED 022 Soccer
PED 023 Softball
PED 040 Tennis
PED 042 Golf
PED 053 Racquetball
PED 054 Beginning Swimming
PED 055 Intermediate Swimming
PED 059 Synchronized Swimming

PHYSICAL SCIENCE

Director: Robert Milligan

Professors: Dunham, Milligan, Shive

Associate Professors: Anderson, Flood, Nelson, Russell

Assistant Professor: Fadem

This program is designed for those students wishing to base a science and engineering career on a strong liberal arts education. Students can combine this major with a business minor, pursue education, enter high-tech industry or continue for a degree in engineering, materials science, surface science, and related fields. Students can spend three to four years at Muhlenberg and then transfer to an affiliated engineering school to receive a Bachelor of Science degree from Muhlenberg and a second Bachelor of Science degree from the affiliated school. Muhlenberg has several programs that can be combined with this major (see Cooperative Programs for details); (1) programs in engineering with Columbia University, (2) programs in engineering with Washington University.

Major Requirements

Eight basic courses in the sciences:

CHM 103 General Chemistry I
CHM 104 General Chemistry II
CSI 110 Computer Science I
MTH 121 Calculus I
MTH 122 Calculus II
MTH 227 Differential Equations
PHY 211 General Physics I

210 / Physics

PHY 212 General Physics II

Four courses numbered 200 or greater that focus the students' interest in two of the disciplines: chemistry, computer science, mathematics, and physics.

Two courses numbered 300 or greater that continue the study in one or both of the chosen disciplines.

Students have the option of expanding their focus by completing additional courses in the sciences.

PHYSICS (PHY)

Head of Department: Professor Robert F. Milligan

Associate Professor: Flood

Assistant Professor: Fadem

The study of physics enables students to develop the important skills of deductive and analytical reasoning. It provides an understanding of natural phenomena and demands that the student be able to express an intuitive model of nature in mathematical terms. In short the study of physics is the study of problem-solving. The skills developed help to prepare the graduate for the ever-changing technical world in which we live and for life in general.

PHY 105 Physics for Life, PHY 111 Introduction to Astronomy and PHY 113 Cosmology are designed to meet the needs of all students. Courses numbered 200 or greater are designed for those students preparing for careers in medicine, engineering and specialized scientific fields. The major program is designed to provide a strong background in classical and modern physics and includes a substantial component of laboratory experience. Students who complete the major program will have an undergraduate training in physics that will enable them to find employment, teach at the secondary level, or attend professional or graduate school in a variety of fields and disciplines.

Physics Major Requirements

Required Courses:

PHY 211 General Physics I

PHY 212 General Physics II

PHY 213 Modern Physics

PHY 216 Analog & Digital Circuits

PHY 226 Optics: From Lenses to Lasers

PHY 241 or 242 Thermal & Statistical Physics

PHY 319 Analytical Mechanics

PHY 329 Electromagnetism

One other course numbered between 200 and 399 in the department.

In addition, the student must complete:

- MTH 121 Calculus I
- MTH 122 Calculus II

Two additional courses in mathematics chosen from:

- MTH 223 Calculus III
- MTH 226 Linear Algebra
- MTH 227 Differential Equations

Students interested in graduate work in physics or engineering will be encouraged to elect additional physics and mathematics courses.

In addition to a major in physics, the College offers an interdisciplinary physical science major. The physical science major is specifically designed to meet the core courses required for students interested in pursuing the Pre-Engineering Combined Plan programs with either Columbia University or Washington University.

Physical Science Major Requirements

Eight basic courses in the sciences

- CHM 103 General Chemistry I
- CHM 104 General Chemistry II
- CSI 110 Computer Science I
- MTH 121 Calculus I
- MTH 122 Calculus II
- MTH 227 Differential Equations
- PHY 211 General Physics I
- PHY 212 General Physics II

Four courses numbered 200 or greater that focus the student interest in two disciplines: chemistry, computer science, mathematics, or physics.

Two courses numbered 300 or greater that continue the study in one or both of the chosen disciplines.

Students have the option of expanding their focus by completing additional courses in the sciences.

Physics Minor Requirements

The department offers a minor in physics, requiring a minimum of six course units, including:

- PHY 211 General Physics I
- PHY 212 General Physics II

A student interested in the minor in physics should consult with the faculty advisor to develop a program suited to the individual's vocational and/or personal objectives. A student may be advised to enroll in mathematics courses beyond MTH 121 Calculus I in order to complete a specific minor program successfully.

Teacher Certification

Students seeking certification for the teaching of physics in secondary schools are required to take PHY 313 as the course numbered between 200 and 399.

105. Physics for Life

An inquiry-based introduction to the concepts of physics and physical science. Through in-depth study of simple physical systems, students gain direct experience with the process of science. The content of the course varies and will concentrate on one or two of the following topics: properties of matter, heat and temperature, light and color, magnets, electric circuits, fluids, and the physics of motion. No mathematical prerequisites beyond those of secondary school algebra and geometry.

Meets general academic requirement S.

111. Introduction to Astronomy

A study of the structure, motions, and evolution of the bodies of the physical universe. Emphasis is given to understanding physical principles and the techniques used by astronomers to study the universe. Topics of special interest include the structure of the solar system, the properties of stars, stellar evolution and collapse, the structure of galaxies, and cosmology.

Meets general academic requirement S.

113. Cosmology: The Scientific Exploration of the Universe

We are continually seeking the answers to the age-old questions about the origin, age, composition, structure, and the ultimate fate of the universe. Just as the cosmos is changing, our views of the cosmos are changing as new observations and interpretations emerge. This course will examine the generally accepted cosmological models, and the personalities responsible for these models, from the time of the ancient Greeks up to the present. Each of these models will be examined in light of the observational data available at the time. Primary emphasis will be given to understanding the most current observations about the universe and the prevailing inflationary Big Bang model of the universe. **Offered as a course designed for Muhlenberg Scholars.**

Meets general academic requirement S.

211. General Physics I

An introductory, calculus-based physics course. This activity-based course meets for two two-hour sessions in the laboratory, where concepts are introduced through experimentation and other hands-on activities. Follow-up discussions, demonstrations, and problem solving are emphasized during lecture periods. Topics covered include one- and two-dimensional kinematics and dynamics, momentum, energy, rotational kinematics and dynamics.

Prerequisite: MTH 121 Calculus I should be previously completed or enrolled concurrently.

Meets general academic requirement S.

212. General Physics II

Extends the energy ideas introduced in PHY 211 General Physics I into the ideas of thermodynamics. It also introduces electrostatics, dc circuits, magnetism and electromagnetic induction, and some topics from modern physics. This course follows the same weekly format as General Physics I.

Prerequisite: PHY 211 General Physics I

Meets general academic requirement S.

213. Modern Physics

An introduction to twentieth-century developments in physics, with an emphasis on the special theory of relativity; Rutherford scattering; introduction to quantum theory; atomic structure; and nuclear energy.

Prerequisite: PHY 212 General Physics II

216. Analog & Digital Circuits

Through a mix of laboratory and classroom work, students will build and analyze analog and digital circuits found in many scientific and computer applications. Specific topics include passive and active filters, electronic feedback, operational amplifiers, oscillators, A/D and D/A conversion, digital waveshaping and instrumentation. This course meets in the laboratory, and will be offered in alternate years.

Prerequisite: PHY 212 General Physics II

226. Optics: From Lenses to Lasers

The student will explore the field of optics, starting with the fundamentals of waves and electromagnetic theory, through geometrical and physical optics, and culminating in the study of selected topics from modern optics. The modern topics may include lasers, optical data processing, holography or nonlinear optics. This course meets for two hours, twice a week, and will be taught in a laboratory/discussion format. The course will be offered in alternate years.

Prerequisite: PHY 212 General Physics II

241, 242. Thermal & Statistical Physics

The laws of thermodynamics, their consequences and applications. Kinetic theory of an ideal gas and an introduction to statistical mechanics.

Prerequisite: PHY 212 General Physics II

Meets general academic requirement W when offered as 242.

250. Simulating Science

Computer simulations are an integral part of contemporary basic and applied science and computation is becoming as important as theory and experiment. The ability "to compute" is now part of the essential repertoire of research scientists. This course will introduce students to methods of computer simulation with applications to physics, biology, chemistry, and environmental science. Possible topics include chaotic dynamics (physics), how populations change with time (biology), the kinetic theory of gases (chemistry), and the change over time of pollution levels in lakes (environmental science). No programming experience is necessary. Elements of structured programming will be presented as needed.

Prerequisite: PHY 211 General Physics I

313. Nuclear & Particle Physics

Elementary particles are the building blocks of nature. The "standard model" describes the interaction of these building blocks and constitutes the most comprehensive understanding of the physical world in existence. An overview of the standard model will be presented as well as topics in nuclear physics. Discussion and hands on experience with particle detectors will be included.

Prerequisite: PHY 213 Modern Physics

319. Analytical Mechanics

A detailed study of the kinematics and dynamics of particles, systems of particles, and rigid bodies. Newtonian, Lagrangian, and Hamiltonian formulations of classical mechanics will be considered with applications to oscillators, gravitation, projectile motion in the presence of frictional forces, and motion in electromagnetic fields. Einstein's theory of special relativity will also be studied.

Prerequisite: PHY 212 General Physics II and MTH 122 Calculus II

321. Advanced Mechanics

A course designed to broaden and deepen the understanding of classical physics. Topics to be studied include rotating coordinate systems, the mechanics of continuous media, small vibrations, perturbation theory, scattering theory, and relativistic dynamics. Lagrangian and Hamiltonian methods will be further investigated.

Prerequisite: PHY 319 Analytical Mechanics

329. Electromagnetism

A study of electrostatics, magnetostatics, electrical currents and their effects. Maxwell's equations are derived. Vector methods are stressed and field notation is used.

Prerequisite: PHY 319 Analytical Mechanics

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331. Advanced Electromagnetic Theory

Derivation of the wave equations from Maxwell's equations. Wave theory is explored in detail, including derivation of the fundamental principles of wave optics.

Prerequisite: PHY 329 Electromagnetism

341. Introduction to Quantum Mechanics

Origin of quantum concepts; the wave function and its interpretation; the Schrodinger equation; treatment of the free particle; potential barriers and wells; the linear harmonic oscillator and the hydrogen atom. Representation of dynamical variables as operators and matrices; introduction to perturbation theory.

Prerequisites: PHY 213 Modern Physics and PHY 319 Analytical Mechanics

351. Solid State Physics

Study of the properties of crystalline solids. Starting with a study of crystal structure, reciprocal lattice structure, energy bands, and the free electron gas, physical models will be developed to explain the electrical, magnetic, thermal and optical properties of solids.

Prerequisite: instructor permission

POLITICAL ECONOMY

Directors: Professors Christopher Herrick and James N. Marshall

Our economic system does not operate in a vacuum. The issues we address as a society, such as taxation, environmental protection, regulation of business and trade policy, and the policies we adopt are greatly influenced by the political interests of powerful constituencies. A variety of interest groups, including labor unions, large corporations, taxpayers, consumers, environmentalists, retired citizens and women, attempt to achieve economic ends at least in part by political means. The political economy major is designed to make explicit these interactions between the economic and political systems. This is achieved by requiring the completion of course work in both economics and political science, as set out below. This program of study should be of interest to students who believe that intellectual challenge during their college years will help them succeed both in the world of work and as good citizens. More specifically, the political economy major is excellent preparation for those interested in careers in the public policy arena, or those who intend to pursue graduate study in either economics, political science or the law.

Students in this major may not take any courses in economics or political science on a pass-fail basis. To continue as a major, the student must maintain a 2.000 grade point average in all courses attempted for the program. Majors may satisfy the writing intensive course requirement for the major in economics or political science.

Major Requirements

Prerequisites:

ECN 101 Principles of Macroeconomics

ECN 102 Principles of Microeconomics

PSC 101 Introduction to American National Government

PSC 103 Introduction to Comparative Government & International Relations

Core Courses:

PSC 221 or 222 Government Regulation of Business
PSC 960 Political Science Internship
ECN 220 or 221 Intermediate Microeconomic Theory
ECN 222 or 223 Intermediate Macroeconomic Theory

Required Pair:

ECN 340 or 341 History of Economic Thought **AND**
PSC 359 or 360 Political Economy & Philosophy of Environmentalism **OR**
PSC 343 or 344 International Political Economy

Optional Pair (choose one):

ECN 336 or 337 Economic Growth & International Development **AND**
PSC 246 or 247 Developing Nations: Societies in Transition
ECN 342 or 343 Comparative Economic Systems **AND**
PSC 230 or 231 European Politics & Government **OR**
PSC 232 or 233 Governments of East Asia **OR**
PSC 234 or 235 Governments & Politics of Russia & CIS **OR**
PSC 244 or 245 Governments & Politics of Latin America

ECN 334 or 335 Trade & Competition in the Global Economy **AND**
PSC 345 or 346 Senior Capstone Seminar in International Studies **OR**
PSC 339 or 340 Theories of International Relations

ECN 332 or 333 Public Finance **AND**
PSC 219 or 220 Public Administration

ECN 245 or 246 Environmental Economics **AND**
PSC 216 or 217 Environmental Politics & Policy Making **OR**
PSC 330 or 331 Comparative & International Environmental Policies

With the approval of the program director, a seminar or special topics course may be substituted for an economics or political science course in the optional pair area. PSC 960 Political Science Internship will be arranged to meet the student's particular interests. Students who are planning to apply to graduate school in political science, economics or political economy are strongly advised to complete either MTH 121 Calculus I and/or MTH 104 Statistical Methods or MTH 144 Introduction to Statistical Analysis.

POLITICAL SCIENCE (PSC)

Head of Department: Professor Alton J. Slane

Professor: Herrick

Associate Professors: Borick, Gambino

Assistant Professors: Hashim, Mathews-Gardner, McRae

The political science major is designed to provide students with an understanding of political, governmental and legal institutions and processes in both America and the world. Selected courses focus on the international network that connects separate nation-states into a global system. Other selected courses provide students with an understanding of the socio-economic, philosophical and cultural underpinnings of American and Western governmental systems and political processes. The major is a sound preparation for graduate work in political science and careers in local, state or federal government; international organizations; law; public policy analysis; teaching; journalism; and non-governmental organizations (NGOs).

Major Requirements

The departmental courses are organized into five groupings which represent the major subdivisions within political science as recognized by the American Political Science Association. Majors are required to attain a general competency in each of these subdivisions and to choose one subdivision for further concentration.

Required Courses:

All majors must complete PSC 101 Introduction to American National Government. In addition, all majors must complete either PSC 103 Introduction to Comparative Government & International Relations or PSC 104 Introduction to Democracy.

Majors must take five advanced courses, one from each of the following five subdivisions:

- American Government and Political Processes
- Public Administration and Constitutional Law
- Comparative Governments
- International Politics and Foreign Policy
- Political Thought and Philosophy

Majors must then take two additional courses selected from one of the five subdivisions.

Majors must take at least one writing intensive course in political science, history, economics, or philosophy in order to satisfy the writing intensive requirement for the major.

Majors must maintain at least a 2.000 grade point average in political science courses to remain in good standing in the department. Majors whose academic or career plans

require some alteration in the course distribution requirements should consult with the head of the department.

Majors planning to apply to graduate school should consult with their faculty advisors about specific courses recommended for graduate school preparation. Majors planning to apply to law school should consult with Dr. Alton Slane about specific courses recommended for law school preparation.

Majors are urged to take at least one special topics course in political science. With the permission of the instructor, any special topics course may fulfill a distribution requirement in one of the five groupings. Independent study may also be arranged with the approval of the department. Selected courses in philosophy, sociology, economics, and history are recommended for majors. Majors interested in statistical methods in political science are advised to take one of the existing courses in statistics offered by other departments or an independent study in political statistics within the department. French, German, Russian or Spanish should normally be completed to satisfy the language requirement.

All majors are eligible for internship programs in local, municipal, and county governments. Consult with Dr. Slane concerning internship opportunities in local government.

Minor Requirements

Political science offers a minor program with three options, all of which require the completion of six courses.

American Government and Political Processes (total of six courses):

Complete both:

- PSC 101 Introduction to American National Government
- PSC 104 Introduction to Democracy

Two courses from among the following:

- PSC 211 or 212 American Parties & Politics
- PSC 216 or 217 Environmental Politics & Policy Making
- PSC 250 or 251 Modern American Political Thought
- Special Topics

Two courses from among the following:

- PSC 219 or 220 Public Administration
- PSC 221 or 222 Government Regulation of Business
- PSC 321 or 322 Constitutional Law I
- PSC 323 or 324 Constitutional Law II
- PSC 325 or 326 Civil Rights & Liberties

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Comparative Governments and International Affairs (total of six courses);

Complete both:

- PSC 101 Introduction to American National Government
- PSC 103 Introduction to Comparative Government & International Relations

Two courses from among the following:

- PSC 232 or 233 Government of East Asia
- PSC 234 or 235 Governments & Politics of Russia & CIS
- PSC 246 or 247 Developing Nations: Societies in Transition
- PSC 341 or 342 American Foreign Policy

Two courses from among the following:

- PSC 230 or 231 European Politics & Government
- PSC 237 or 238 Governments & Politics of Africa
- PSC 239 or 240 International Law & Organization
- PSC 244 or 245 Governments & Politics of Latin America
- PSC 248 or 249 Governments & Politics of the Middle East
- PSC 283 Globalization and Social Justice
- PSC 339 or 340 Theories of International Politics
- PSC 383 Regimes and Regime Change

General (total of six courses):

Complete both:

- PSC 101 Introduction to American National Government
- PSC 104 Introduction to Democracy

Two courses numbered between 200 and 299

Two courses numbered 300 or greater

Honors Program

Political Science majors are invited to complete honors in their senior year. The following requirements must be fulfilled to receive honors at Commencement:

1. A 3.75 grade point average in political science and an overall 3.50 grade point average at the beginning of the first or second semester of the senior year.
2. Honors candidates will enroll in an Independent Study (PSC 970) in either semester of their senior year. An honors applicant will work closely with a faculty member of the Political Science Department in developing an honors project which will culminate in an honors thesis (paper) using empirical or theoretical research methods.
3. After completing the thesis, the student will defend the thesis before the student's faculty supervisor and selected faculty, who will determine whether to award honors.

Semester in Washington, D.C.

Since 1986 Muhlenberg College has participated in a Washington semester program: The Lutheran College Washington Semester. The program is sponsored by the thirteen colleges in the Lutheran College Washington Consortium and is open to political science majors and minors.

INTRODUCTORY COURSES

101. Introduction to American National Government

An examination of the constitutional-legal foundation and present structures and functions of American national government and selected aspects of state and local government, with emphasis on current issues affecting the operations of American government.

Meets general academic requirement B.

103. Introduction to Comparative Government & International Relations

The course provides a basic introduction to core concepts and problems in the fields of international relations and comparative government. Key issues explored in the course include: how and why nation-states apply their power to act cooperatively, why they occasionally resort to violence to settle disputes, and how and why states differ in their organization and in their relationship between citizen and government.

Meets general academic requirement B.

104. Introduction to Democracy

An examination of the ideological, socio-economic and cultural foundations of democracy, with particular emphasis on contemporary American democracy and its origins, current practices and prospects for the future.

Meets general academic requirement B.

AMERICAN GOVERNMENT AND POLITICAL PROCESSES

211, 212. American Parties & Politics

An examination of the current structures and functions of the American party system and its implications for American democracy. The use of introductory statistics in analyzing political data is discussed.

Meets general academic requirement B (and W which applies to 212 only).

216, 217. Environmental Politics & Policy Making

A study of recent and contemporary U.S. environmental policy and its formulation. The course examines the political and institutional settings and constraints on the formulation of environmental policy, including the role of the President, Congress, the courts, bureaucracy, state governments, and interest groups. Attention will also be given to theoretical issues as they arise out of, and influence, the policy making process. In addition, the course will examine the interaction of global environmental problems and domestic policy making.

Meets general academic requirement B (and W which applies to 217 only).

Special Topics

An examination of such selected topics in the American political system as Congress, the Presidency, federalism, foreign policy, and public policy, topics which serve to supplement the study of American government and political processes.

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PUBLIC ADMINISTRATION AND CONSTITUTIONAL LAW

219, 220. Public Administration

An examination of the theory and practice of managing the public sector with emphasis on the politics of administration, organization structures, communications, decision-making systems, budgeting processes, and personnel management.

Meets general academic requirement B (and W which applies to 220 only).

221, 222. Government Regulation of Business

An examination of the legal framework (the legislatures, the courts, and government agencies) and business's major legal responsibilities as established in the following subject areas: administrative law, the Bill of Rights, antitrust, labor relations, employment discrimination, federal consumer protection, and regulation of environmental quality.

Meets general academic requirement B (and W which applies to 222 only).

321, 322. Constitutional Law I

An examination of the origins and limitations on judicial review; the constitutional sources of national authority, with special focus on the nature and scope of the commerce and tax powers; the constitutional limitations on presidential and congressional power; and selected First Amendment freedoms.

Meets general academic requirement B (and W which applies to 322 only).

323, 324. Constitutional Law II

An examination of the incorporation of the Bill of Rights; the rise and demise of substantive due process; the concept of state action; federal enforcement of civil rights; the nature and scope of equal protection of the law; and selected First Amendment freedoms.

Meets general academic requirement B (and W which applies to 324 only).

325, 326. Civil Rights & Liberties

An examination of the Fourth, Fifth, Sixth and Eighth Amendments of the United States Constitution and their protection of the rights of criminal defendants.

Meets general academic requirement B (and W which applies to 326 only).

960. Political Science Internship

An opportunity for selected students to gain insight into and understanding of the operations and objectives of local government agencies. Pass-fail only.

COMPARATIVE GOVERNMENTS

230, 231. European Politics & Government

This course introduces students to European politics in the post-Cold War era. The course focuses on political, economic and social continuity and change in Western, Southern and East-Central European nations. Taught from a broad regional perspective, the course will analyze the role of institutions and actors in shaping the dynamic political processes in the nations of Europe. Special attention is given to their economic and political interactions and their ramifications for the European integration process. This course also serves as a prerequisite to the European Union course (PSC 370 or 371) which culminates in a European Union simulation in Washington, DC.

Meets general academic requirement B (and W which applies to 231 only).

232, 233. Governments of East Asia

Analysis of the contemporary political systems of East Asia, primarily China and Japan, in their social and cultural settings, historical background, and dynamics of modernization.

Meets general academic requirement B or D (and W which applies to 233 only).

234, 235. Governments & Politics of Russia

A study of the newly emerging post-communist politics in Russia, with emphasis on the problems and challenges it faces. The political experience of communism and Soviet rule will also be examined with particular attention to the reasons for the demise of the system.

Meets general academic requirement B (and W which applies to 235 only).

237, 238. Governments & Politics of Africa

This course will examine the domestic politics and international relations of Africa. In particular, the course will explore common problems faced by these states including the formation of viable political systems, the implementation of policies to promote economic development, and the conduct of viable foreign policies. The course will also examine the effect of historical culture, economic conditions, and colonial penetration upon the formulation and conduct of public policy in Africa.

Meets general academic requirement D (and W which applies to 238 only).

244, 245. Governments & Politics of Latin America

A study of the political processes within the Latin American region; the historical and cultural contrasts with North American-European politics; and the social, political and economic development problems which continue to face this region. Particular attention will be given to Mexico, Colombia, Chile, Brazil, Argentina, and a representative number of other nations in Central America, South America, and the Caribbean region.

Meets general academic requirement B or D (and W which applies to 245 only).

246, 247. Developing Nations: Societies in Transition

A study of the politics of developing nations, their struggles to overcome poverty and underdevelopment, their efforts at nation-building, and their impact in the world. The challenges and dilemmas of modernization and contending theories about the causes of underdevelopment and appropriate development strategies will be discussed.

Meets general academic requirement B or D (and W which applies to 247 only).

248, 249. Governments & Politics of the Middle East

This course will examine the domestic politics and international relations of the Middle East. In particular, the course will examine the effect of historical culture, economic conditions, and colonial penetration upon the current political conditions of the area.

Meets general academic requirement D (and W which applies to 249 only).

370, 371. European Union

This course considers the ideas and political practices that underlie the "European Union". It explores the potential of an emerging political entity that would at a minimum be an emerging economic superpower. The associated, basic debate over what it means to be a "European" also raises important issues of political culture and national identity. The course culminates in a European Union Parliament Simulation held each year in Washington, DC.

Prerequisite: PSC 230 or 231 European Government & Politics

Meets general academic requirement B (and W which applies to 371 only).

383. Regimes and Regime Change

The course is designed to introduce students to modern democratic, authoritarian and totalitarian political systems (regimes). We will study how power is organized and exercised in the various political systems of the world. Students will learn about institutions and processes that shape domestic politics in various regimes. By the end of the course, students should be able to identify, analyze and compare the different political systems of the world. Students will also learn about processes that explain why and how political regimes change. The course will analyze the causes of breakdown, as well as consolidation of democratic and non-democratic regimes.

Meets general academic requirement B.

INTERNATIONAL POLITICS AND FOREIGN POLICY

239, 240. International Law & Organization

The course will study the development and role of international law and international organizations (the United Nations, regional and functional organizations) in the regulation of interactions among nation-states. The view of Western, communist and less developed states toward these institutions will be examined. The course will focus on issues such as the rights and obligation of states, treaty law, and the role of international organization in maintaining the peace and promoting the improvement of the physical conditions of humankind. Students will be expected to provide brief analyses of hypothetical cases in international law, plus an in-depth analysis of an issue facing international organizations.

Meets general academic requirement B (and W which applies to 240 only).

242, 243. Introduction to Conflict & Peace Studies

This is an introductory course in the interdisciplinary field of conflict and peace studies which examines different approaches to conflict definition, management and resolution. Fundamental issues of peace, war, conflict and violence are discussed from a variety of perspectives within the political science and international studies paradigms.

Meets general academic requirement B (and W which applies to 243 only).

283. Globalization and Social Justice

Interdependence and globalization have brought the world closer to American citizens. As their lives become more inter-connected with the dynamics of international market and political forces, the traditional distinctions between local and global concerns begin to fade. The events of September 11th, wars in Afghanistan and Iraq, and the cycles of anti-globalization social mobilization have made us acutely aware that national security or national economic prosperity can no longer be conceived apart from the international context. As issues concerning Americans become more "intermestic", the avenues and scope for affecting socioeconomic and political transformation also change. The course aims to further student understanding of the complex phenomenon of globalization and its impacts. We will analyze how citizens, as social actors, respond to the new challenges posed by globalization. Students will look at how issues of global socioeconomic and political justice are addressed by various citizen groups, social movements and non-governmental organizations (NGOs) in areas as diverse as human rights, environmental concerns, cultural diversity and economic welfare.

Meets general academic requirement B.

330, 331. Comparative & International Environmental Policies

The course will examine the domestic and global dimensions of environmental politics. Subjects covered in the course will include atmospheric issues, coastal and ocean pollution and multiple resource use, land resources, biodiversity, international river systems, environmental refugees, and population. The course will compare policy-making in the European Union, ASEAN, NAFTA, and the United Nations systems.

Meets general academic requirement W when offered as 331.

339, 340. Theories of International Politics

A critical analysis of the current and historical theories of international politics including the nation-state system, balance of power, and societal and governmental factors predisposing nations to peace and war. The course will also explore emerging theories of decision-making at the national and international level, as well as the growing role of transnational relations.

Meets general academic requirement B (and W which applies to 340 only).

341, 342. American Foreign Policy

A study of the evolving nature of the formulation and conduct of American foreign policy, including the impact of an emerging international civil society on the policy formulation process since World War II. The course will emphasize contemporary issues such as North-South relations, defense, humanitarian intervention and disarmament, international trade, as well as emerging issues such as international resource management, pandemic disease control, and transnational organized crime.

Meets general academic requirement B (and W which applies to 342 only).

343, 344. International Political Economy

This course explores the intersection of international politics and economics. The course focuses on the developmental challenges facing countries in the age of globalization. The course focuses not only on international actors such as the state, global corporations, international organizations, et.al., but also on subnational actors and international relations revolving around such global issues as debt, trade, finance, and the environment.

Meets general academic requirement W when offered as 344.

POLITICAL THOUGHT AND PHILOSOPHY

250, 251. Modern American Political Thought

An analysis of major interpretations of contemporary American political and socioeconomic reality, with some attention to the major forces which have shaped the current American political and economic scene in the last half-century.

Meets general academic requirement B (and W which applies to 251 only).

252, 253. War & Justice

This course considers the relationship between international relations, statecraft and ethics through an examination of the just war tradition in Western political thought. The moral arguments of both ancient and contemporary theorists of just war will be examined, along with their application to modern conflicts such as World Wars I and II, Vietnam, and the Persian Gulf War.

Meets general academic requirement P (and W which applies to 253 only).

351, 352. Early Western Political Thought

An examination of the foundations of Western political thought, viewing the major political philosophies as interpretations of social and political realities. Different classical political philosophers (Plato, Aristotle, Augustine, Aquinas, Locke) will be selected each semester for special emphasis.

Meets general academic requirement P (and W which applies to 352 only).

353, 354. Modern Western Political Thought

An examination of the major political philosophies after Locke, including Hegel and Marx, with some emphasis on a critical literature challenging the conventional interpretations of 20th century Western society.

Meets general academic requirement P (and W which applies to 354 only).

359, 360. Political Economy & Philosophy of Environmentalism

An analysis of contemporary economic, social and philosophic literature dealing with sustainable economics, environmental ethics, and the major value re-assessments required for the construction of an environmentally viable society. Recommended for juniors and seniors.

Meets general academic requirement P (and W which applies to 360 only).

SEMINAR AND INDEPENDENT STUDY

345, 346. Senior Capstone Seminar in International Studies

The course provides an opportunity for students to integrate the perspectives obtained in the interdisciplinary set of courses taken earlier in the major and to address a series of problems which are pertinent to the four tracks of the major. Students will engage in cooperative learning through the development of policy analyses to address the problems. Open to seniors. Strongly recommended as an honors seminar.

Meets general academic requirement W when offered as 346.

970. Political Science Independent Study/Research

Selected topics in political science.

PSYCHOLOGY (PSY)

Head of Department: Professor Laura Snodgrass

Professors: Harring, V. Sinha, Tjeltveit

Associate Professors: Rudski, Sciutto

Assistant Professors: Bips, Kanaya, Wolfe

Visiting Associate Professor: Wurf

Psychology is the scientific study of human behavior. The major is designed to permit a wide range of selectivity while maintaining requirements which will give an excellent background in and knowledge of what constitutes the science of psychology. Students with a wide range of interests either major in psychology or complete a number of psychology courses. A major in psychology will give students the necessary background to go on to graduate school in any area of psychology (e.g., clinical, counseling, development, social or experimental) or to gain employment. The study of psychology provides an excellent background for students interested in careers in a variety of areas, such as the health professions, human resources, law, education, business, biology or the natural sciences.

Major Requirements

Majors will complete a minimum of ten courses in the department.

Required Courses:

PSY 101 Introductory Psychology

One of the following cognate courses, which is a prerequisite for Psychological Statistics:

MTH 104 Statistical Methods **OR**

MTH 121 Calculus I

PSY 103 Psychological Statistics

PSY 104 Research Methods in Psychology

Three additional courses, with at least one elective from each of the following areas:

Fundamental Processes

Social and Personality

Clinical and Developmental

Two additional courses from the following area:

Advanced Courses and Seminars

One additional course from Advanced Laboratory

One elective course from the list of course offerings

PSY 101 Introductory Psychology is a prerequisite for all other psychology courses. Majors may meet the requirement for a writing intensive course (exclusive of the First-Year Seminar) in the major by completing one of the required advanced laboratory courses.

A grade point average of at least 2.000 in psychology courses must be maintained in order to remain a major in the department. Opportunities for internships and individual research projects that contribute to the award of the degree are available for majors who have demonstrated the capability for independent work. Only one course unit of Independent Study/Research and one course unit of Internship can be counted toward the ten required courses.

Students who are accepted into the Teacher Education certification program may count EDU 201 Exceptional Learner to satisfy one of the courses in the Advanced Course and Seminar requirement, and they may count EDU 102 or 103 Educational Psychology as an elective in the Psychology major. Admission to student teaching requires a 2.50 grade point average in the psychology major.

Honors Program

An honors program featuring advanced original research and a close working relationship with a faculty member is available to qualified psychology majors. To be considered for acceptance into the honors program, students must have a grade point average of 3.500 or better in courses attempted in the department and reach an understanding with a faculty member to sponsor their project. Students must complete two semesters of independent research, write a thesis based on original empirical or theoretical work, and make an oral defense of the thesis at a colloquium attended by faculty and students. Students electing a multi-disciplinary research topic (e.g., in biopsychology or philosophical psychology) should have completed relevant coursework in another discipline and either work on the project with a faculty member from that discipline as well as the Department of Psychology or have someone from the other discipline evaluate the thesis. Students interested in honors work in psychology should declare their interest in writing to the head of the department by April 15 of their junior year.

101. Introductory Psychology

A survey of all the major areas of psychology. Includes an orientation to the attitudes and methods of the psychologist, the physiological basis of behavior, growth and development, sensation, perception, conditioning, human learning, cognitive processes, social interaction, personality, conflict adjustment, methods of measurement, behavior disorders and applied psychology.

Meets general academic requirement B.

103. Psychological Statistics

Introduction to the role of statistical analyses in testing hypotheses in psychology. Students will learn both descriptive and inferential uses of statistics as they apply to a variety of research designs commonly used in psychology. This course also emphasizes scientific writing and the use of SPSS to conduct statistical analyses.

Prerequisite: PSY 101 Introductory Psychology and MTH 104 Statistical Methods or MTH 121 Calculus I

104. Research Methods in Psychology

An exploration of the methodological issues and strategies that are most germane to research in psychology. Topics include types of research designs, ethics, measurement, library resources, and a review of data analysis procedures. Scientific writing and oral presentations of research results will be emphasized. Four hours lecture/lab.

Prerequisite: PSY 101 Introductory Psychology and PSY 103 Psychological Statistics

FUNDAMENTAL PROCESSES

201. Learning & Behavior

An investigation of how our behavior is changed by experience. Topics will include the nature-nurture issue, conditioned reflexes, operant conditioning, observational learning, reinforcement schedules, punishment, and the stimulus-control of behavior.

Prerequisite: PSY 101 Introductory Psychology

207. Sensation & Perception

Exploration of the human sensory systems and perception. The course is focused on investigating the relationship between our conscious experience of the world and the anatomy and physiology of the sensory systems. We start with very basic sensory coding and work up to looking at individual differences and the influence of learning and development on perception. There is an emphasis on classroom demonstrations and laboratory experiences. All students run a perception experiment.

Prerequisite: PSY 101 Introductory Psychology

Meets general academic requirement S.

208. Biological Psychology

A study of the nervous system and physiological processes directly related to behavior in human beings and animals. The mechanisms underlying sensory and motor processes, learning, emotion and innate behavior patterns.

Prerequisite: PSY 101 Introductory Psychology

Meets general academic requirement S.

SOCIAL AND PERSONALITY

202. Social Psychology

The study of social influences on individual behavior, including topics in social cognition, attitude change, interpersonal behavior, social influence and small group behavior.

Prerequisite: PSY 101 Introductory Psychology

203. Personality Psychology

Historical (e.g., Freud, Skinner, Rogers) and more contemporary (e.g., the "Big Five," cognitive theory) approaches to personality are explored. Current research topics in the field of personality psychology are also addressed (e.g., gender identity, aggression, self-esteem, the unconscious).

Prerequisite: PSY 101 Introductory Psychology

CLINICAL AND DEVELOPMENTAL

204. Child Psychology

Emotional, mental, physical and social development of the child from birth to puberty, including maladjustments and deviations in these areas. Twenty hours of morning fieldwork required. When registering this course, students need one 3-hour morning period free for fieldwork. Not recommended for first year students.

Prerequisite: PSY 101 Introductory Psychology

205. Psychology of Adolescence

A study of the development and behavior of the adolescent in American society. The course will also touch upon special topics such as drugs, delinquency, teenage pregnancy, suicide, etc. Twenty-four hours of afternoon fieldwork is encouraged. When registering this course, students need one 3-hour afternoon period free for fieldwork. Taught in the spring semester.

Prerequisite: PSY 101 Introductory Psychology. PSY 204 Child Psychology recommended.

213. Abnormal Psychology

An exploration of psychological problems ranging from the commonplace to the bizarre. The classification, assessment, causes, course treatment and prevention of the major types of abnormal behavior will be addressed. Pertinent scientific research, narrative approaches, and major theories will be emphasized.

Prerequisite: PSY 101 Introductory Psychology

ADVANCED COURSES AND SEMINARS

301. Cognitive Processes

The study of human mental processes, including perception, attention, memory, problem solving, language, cognitive styles and gender differences. All students participate in classroom demonstrations and run a cognitive experiment. This is an upper level class and is not recommended for first-year students. Recommended for teacher education candidates. Taught in the spring semester.

Prerequisite: PSY 101 Introductory Psychology and PSY 104 Research Methods in Psychology

302. History of Psychology

An exploration of how psychology's understanding of human beings developed across history, with a special emphasis on the early roots of contemporary debates, assumptions about human nature, and methods employed to understand people. Primarily for upper class majors, the course provides an overview of psychology especially helpful for those planning to attend graduate school. Usually taught in alternate years.

Prerequisite: permission of instructor or five or more previous courses in psychology

304. Psychotherapy & Counseling

An exploration of psychotherapy theories and intervention strategies, scientific research on therapy process and outcome, the place of therapy in contemporary society, and a critical evaluation of therapeutic ideals. This course is not a practicum. Taught in the fall semester.

Prerequisite: PSY 101 Introductory Psychology and either PSY 203 Personality Psychology or PSY 213 Abnormal Psychology or permission of instructor and junior or senior standing.

305. Adult Personal & Cognitive Development

This course is designed for those students who are interested in becoming a Peer Learning Assistant. The course explores adult development theories and research in humanistic, developmental, and behavioral psychology as they apply to adult learning. It covers the work of Perry, Chickering, Gardner, Jung, Bandura, Rowley, Coleman, Flavell, Kolb, Sternberg, Hyerle, Bruffee, Mesrirow, and others. Current research in instruction is applied to the American college classroom. **This course may not be used by the psychology major to satisfy a requirement.**

Prerequisite: instructor permission

Meets general academic requirement B.

306. Psychology of Adulthood & Aging

Designed to give a scientific perspective on growth and development in the post-adolescent years. The course will examine in-depth topics, such as the physiology of aging, adult intelligence, learning and memory in adulthood, stability and change in adult personality, psychopathologies of adult life, etc. A part of the course will also focus on adjustment problems of the adult in relation to the occupational world, marriage, family life and retirement. Twenty hours of fieldwork will be required. When registering this course, students need one 3-hour period during the day free for fieldwork. Taught in alternate years.

Prerequisite: PSY 101 Introductory Psychology and PSY 205 Psychology of Adolescence and at least one other course in psychology. Recommended for juniors and seniors.

309. Psychological Assessment

Introduction to the theory and application of psychological tests as measures of personality, intellectual functioning, and attitudes. This course considers the use, abuse, and limitations of such measures and focuses on topics such as validity and reliability of tests; construction of tests, rating scales and surveys; the administration of tests and the interpretation of test results. Taught in alternate years.

Prerequisite: PSY 101 Introductory Psychology and PSY 103 Psychological Statistics. PSY 104 Research Methods in Psychology recommended.

310. Industrial/Organizational Psychology

This course is concerned with understanding the behavior of individuals in organizations and applying psychological knowledge to organizational problems. The focus of the course is on understanding the psychological principles at work in the workplace. Topics include job analysis, prediction and selection, training, performance appraisal, job satisfaction, motivation, leadership, and research methods.

Prerequisite: PSY 101 Introductory Psychology and PSY 103 Psychological Statistics or MTH 104 Statistical Methods

314. Psychology of Women

This course will examine theory and research on gender differences, specifically female gender development, taking into consideration biological, cognitive, behavioral, and social influences. Emphasis will be placed on a critical analysis of the assumptions about human behavior and the methods used to test these ideas. Topics include gender-role development, achievement motivation, women and work, sexuality and health, and violence against women. Taught in alternate years.

Prerequisite: PSY 101 Introductory Psychology and PSY 103 Psychological Statistics or WST 101 Introduction to Women's Studies

316. Child Psychopathology

An exploration of emotional, behavioral, developmental, and learning disorders in children and adolescents. This course emphasizes the interdependence of biological, psychological, and social/cultural factors in the etiology, course and treatment of childhood disorders.

Prerequisite: PSY 101 Introductory Psychology and PSY 213 Abnormal Psychology

318. Psychopharmacology

An exploration of the key concepts and principles of how drugs and brain chemistry affect behavior. Topics will include basic pharmacology, research methods, states of consciousness, reinforcement and addiction, and the treatment of psychological disorders.

Prerequisite: PSY 101 Introductory Psychology and PSY 208 Biological Psychology or BIO 151 Principles of Biology II or permission of instructor

4xx. Special Topics Courses

Prerequisite: varies with course topic

420-429. Perspectives in Psychology

This seminar course will allow in-depth study of an advanced topic in psychology such as health psychology, philosophical psychology, cultural psychology, or evolutionary psychology. Emphasis will be placed on acquainting students with emerging fields in psychology.

Prerequisite: varies with course topic

ADVANCED LABORATORY COURSES

401. Advanced Laboratory in Conditioning

A laboratory course exploring the basic variables in conditioning. Attention will be given to operant and respondent techniques with human and non-human animals. Emphasis will be placed on reinforcement schedules, discrimination, and motivation. Final projects will be presented in both oral and written form. Three hours lecture, two hours laboratory. Usually taught in the fall semester.

Prerequisite: PSY 101 Introductory Psychology, PSY 103 Psychological Statistics, PSY 104 Research Methods in Psychology and PSY 201 Learning & Behavior or PSY 208 Biological Psychology

Meets general academic requirement W.

402. Advanced Laboratory in Social & Personality

A laboratory course exploring research methods that use human subjects to investigate social behavior. Emphasis will be placed on experimental and quasi experimental designs. Student conducted experiments are used to teach principles of measurement, control and statistical application. Final projects will be presented in both oral and written form. Three hours lecture, two hours laboratory. Usually taught in the fall semester.

Prerequisite: PSY 101 Introductory Psychology, PSY 103 Psychological Statistics, PSY 104 Research Methods in Psychology and PSY 202 Social Psychology or PSY 203 Personality Psychology

Meets general academic requirement W.

403. Advanced Laboratory in Perception & Cognition

A laboratory course exploring research methods that use human subjects to investigate phenomena in perception and cognition. Student conducted experiments are used to teach research design, the use of apparatus, and statistical application. Emphasis will be on experiments that investigate perceptual or cognitive processes. Final projects will be presented in both oral and written form. Three hours lecture, two hours laboratory. Usually taught in the spring semester.

Prerequisite: PSY 101 Introductory Psychology, PSY 103 Psychological Statistics, PSY 104 Research Methods in Psychology and PSY 207 Sensation & Perception or PSY 301 Cognitive Processes

Meets general academic requirement W.

404. Advanced Laboratory in Clinical Research

Students explore quantitative and qualitative research methods used in contemporary clinical and counseling psychology to investigate psychological problems, the prevention of psychological problems, and the amelioration of psychological problems (e.g., in psychotherapy and counseling). By conducting their own research projects or participating in ongoing research projects, students learn about the logic of research, the process and methods of conducting research, and how to draw appropriate conclusions from research. Special attention is devoted to the various types of clinical research, experimental designs, data analyses and interpretation, emerging rigorous qualitative research approaches, and ethical issues. Students present final projects in both oral and written form. Five hours of class per week. Usually taught both semesters.

Prerequisite: PSY 101 Introductory Psychology, PSY 103 Psychological Statistics, PSY 104 Research Methods in Psychology and PSY 213 Abnormal Psychology or PSY 304 Psychotherapy & Counseling

Meets general academic requirement W.

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OTHER COURSES

EDU 102, 103. Educational Psychology

This course will provide the student with a knowledge of the processes of human growth and development and human learning. Special emphasis will be given to the practical application of this knowledge to teaching. Fieldwork will be required.

Prerequisite: EDU 101 Foundations of Education and preliminary admission to the teacher certification program

Meets general academic requirement W when offered as 103.

EDU 201. Exceptional Learner

Exceptional learners, including gifted, talented, and those with physical, cognitive, sensory or emotional handicaps will be studied from the perspective of causation, development, diagnosis, education and/or treatment. A minimum of 20 hours of fieldwork is required.

Prerequisite: PSY 101 Introductory Psychology or admission to the teacher certification program

Meets general academic requirement B and fulfills the second academic B requirement for students in the teacher education program.

INDIVIDUALIZED INSTRUCTION

270. Psychology Research Apprenticeship

0.5 course unit

An elective course in which students learn a variety of important research skills and gain in-depth knowledge of a specialized topic in psychology by participating in a faculty member's ongoing research program. Experiences may include, but are not limited to, any of the following: gathering and analyzing information to develop proposals, stimulus development, data collection, statistical analysis, writing up results, and presenting results. Topics and course availability will vary by professor. Interested students should consult with individual faculty for more information. This course can be repeated and does not count toward the requirements for the psychology major. It will count toward the 4 course units of individualized instruction that can be earned toward the 34 course unit degree requirement.

Prerequisite: instructor permission

960. Psychology Internship

Prerequisite: instructor permission

970. Psychology Independent Study/Research

Prerequisite: instructor permission

RELIGION (REL)

Acting Head of Department: Associate Professor Susan Schwartz

Assistant Professors: Hardy, Lachter, Pettit

Lecturer: Albert

The Department of Religion aims to help students acquire an independent appreciation and critical understanding of their own religion and the religions of others. Religious studies are an integral part of the liberal arts curriculum; such study helps individuals explore overarching questions of meaning and value. It also clarifies the impact religion has had on human societies and their literature, art, politics, and history.

Both the course offerings and the approaches employed in the department emphasize the interdisciplinary, cross-cultural, and ecumenical dimensions of religious study.

Students who plan a major or a minor in religion should keep in mind that, although they may hope to become religious professionals or to enter graduate schools in the field, the primary goal is to understand religion thoroughly as an important aspect of life. Both majors and minors are encouraged to select courses which are within their own tradition, which explore relationships between religion and other fields of study, and which involve religions very different from their own.

Major Requirements

A major in religion consists of nine courses. Specific courses selected must be approved in advance through consultation with a faculty advisor, the purpose of which is to develop a coherent program suited to the individual student's vocational or personal objectives.

Required Courses:

REL 401 Theory & Method in the Study of Religion

REL 402 Seminar in the Study of Religion

At least one course selected from each of the following four areas:

Biblical Studies

REL 211 or 212 Understanding the Hebrew Scriptures

REL 213 or 214 Understanding the New Testament

REL 310-319 Topics in the Bible

Western Religious Traditions

REL 219 or 220 Paths in Jewish Thought

REL 221 or 222 Jewish Community Through the Ages

REL 227 Introduction to Islam

REL 231 Christian Thinking

REL 244 Contemporary Roman Catholicism

REL 246 The Lutheran Heritage

Eastern Religious Traditions

REL 203 Religions of India

REL 207 Religions of China

REL 208 Religions of Japan

REL 225 Buddhism From East to West

Religion and Society, Culture or Politics

REL 206 Religion & Performing Arts in India

REL 250 Religion in American Culture

REL 300 Religion & Its Critics

REL 320 Religious Extremism: Violence, Politics & Religion

REL 322 or 323 The Imagination in Religions & Literature

REL 325-334 Topics in Religious Ethics

REL 335 The Holocaust & Its Impact

REL 350-359 Topics in Gender & Religion

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REL 361 Psychology of Religion

Minor Requirements

A minor in religion consists of five courses in the department, one of which must be REL 401 Theory and Method in the Study of Religion. The specific courses selected for a minor must be approved in advance in consultation with a faculty advisor in order to develop a coherent program suited to the individual student's vocational and personal objectives.

Minor in Asian Traditions

Appropriate courses in the Department of Religion and other departments may contribute toward a minor in Asian Traditions. (see page 76)

Minor in Jewish Studies

Appropriate courses in the Department of Religion and other departments may contribute toward a minor in Jewish Studies. (see page 169)

Program in Religious Education

Students interested in a career in religious education should consult with their faculty advisor in the Department of Religion to design an individualized set of courses in sociology, psychology and education, which would supplement basic requirements of a religion major.

Semester in Washington, D.C.

Muhlenberg cooperates with several other colleges in the Lutheran College Washington Consortium who together offer a semester in Washington. The semester is designed for juniors and seniors with a variety of academic majors and is organized around the theme, "Ethical Issues and Public Affairs." In addition to seminars drawing upon the special resources available in Washington, there are hundreds of internship possibilities in government, social service agencies, religious groups, medicine, public interest organizations, business and the arts.

104. Male, Female & Religion

An analysis of questions of gender and sexuality, as they are dealt with in selected religious traditions, West and East. The creation of male and female in Genesis is analyzed and compared to creation myths in other traditions. Gender roles are considered, as well as the nature of sexuality (heterosexuality and homosexuality). Sexual images in descriptions of religious experiences are explored, along with the question of whether God (or the Ultimate) is male or female (or both).

Meets general academic requirement R.

105. Religious Biography

An introduction to religious thought and traditions through autobiographical and biographical writings. Included are the nature of the sacred, how to judge a religious experience, the meaning of religious vocation, and ways in which religious convictions lead to sociopolitical action. Three or four significant people are considered from a list which includes Augustine, Luther, Dame Julian, Martin Luther King, Gandhi, Elie Wiesel, Black Elk, and Nhat Hahn.

Meets general academic requirement R.

106. God Today

How are people thinking about God today? How is God to be portrayed? Is such a portrayal credible? What are its implications? The course explores the implications of specific views of God for human meaning and behavior. It re-examines the usefulness of various biblical images of God in the light of modern developments, particularly human suffering, despair, and ecological problems.

Meets general academic requirement R.

108. Mystical Encounters

Throughout history, individuals of many religious and cultural traditions have sought personal, immediate experience of the divine. Such ecstatic communion is recognized as mysticism. Mysticism has generated some of the most remarkable texts in the religious libraries of the world. This course examines mystical traditions across cultures, exploring some of these texts. Symbols of transformation are interpreted as both culturally determined and universal.

Meets general academic requirement R.

109. The Jewish Christian Relationship

When Jesus' first followers told his story "according to the scriptures," they set the stage for a fateful history. For nearly 2000 years, Jews and Christians have had to define their relationship with one another. The relationship has moved from that of siblings to rivals to oppressor and oppressed. Recently, after the Holocaust, both Christian and Jewish theologians have sought to revise and renew the troubled relationship between the two faiths. This course will consider the variety of models, theologies, approaches and effects generated throughout history. Students will consider the past, present and future states of this troubled and inescapable part of our culture.

Meets general academic requirement R.

110-129. Topics in Religion

111. Religions of Star Trek

This course explores major themes in the study of religion using Star Trek as a primary source, along with more traditional, written texts. Selected excerpts from the original series, the Next Generation series, Deep Space Nine and Voyager will be viewed and discussed. Star Trek will be presented as a media forum for public debate on changing attitudes towards the role of religion in our culture over the past thirty years. It has presented constructions of meaning and value across cultures, highlighting themes fundamental to our understanding of religions. These themes include: the nature of the divine, the role of myth and ritual, evolution in both the spiritual and biological sense, the role of technology in our understanding of religious systems, attitudes toward "other" religions, and the transformative power of religious experience. Offered in the Fall semester.

Meets general academic requirement R.

112. Expressions of the Way: the Poetry of Tao

The Tao that cannot be spoken, the sound of one hand clapping—how can these enigmas be comprehended? For thousands of years, poets have evoked the symbolic power of words to express the ineffable. In this course, we will trace the development of poetic expressions of Tao, from ancient China to modern America. We will begin with the Tao Te Ching and Chuang Tzu, followed by Chinese Taoist and Buddhist poetry up to the great poets of the T'ang dynasty, and then on to the Zen poets of Japan. Finally, we will examine the effects of English translations of Chinese and Japanese poetry on the religious thought and poetry of twentieth-century America. We will also consider other

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East Asian meditative arts: painting, calligraphy, chi-kung, tea ceremony, flower arranging, and the martial arts. Offered in the Spring semester.
Meets general academic requirement R.

203. Religions of India

A survey of the forms and images of religion in the Indian subcontinent, concentrating on Hinduism and Buddhism. The religious spirit, ancient and modern, will be examined through a study of mythological, scriptural, historical, cultural, and artistic phenomena.
Meets general academic requirement D or R.

206. Religion & Performing Arts in India

This course focuses on dance, dance-drama, and music as ritual expressions of Indian spirituality. Multi-media sources are actively utilized, as well as readings from the formal Indian tradition (Natya Sastra) and Western interpretive works on Indian music and dance.
Meets general academic requirement D or R.

207. Religions of China

This course will address the origins and development of Confucianism, Taoism, and Buddhism, and trace the interactions of these religions as they have shaped the spiritual and ethical environment that exists in China today. The course will also consider material culture, popular forms, and folk traditions, and, finally the unique challenges posed by the modern Chinese political situation.
Meets general academic requirement D or R.

208. Religions of Japan

Students will study the native Japanese religious tradition, Shinto, as well as the Chinese traditions that have become fundamental to Japanese religion (Confucianism, Taoism, and Buddhism) as they have been interpreted in Japan. The course will also consider material culture, popular forms, folk traditions, and the "new religions" of modern Japan, as well as attitudes toward religion in today's Japan.
Meets general academic requirement D or R.

211, 212. Understanding the Hebrew Scriptures

An examination of the "Law, Prophets, and Writings" from the perspectives of Jews and Christians. The course will consider how these books came into existence and became scripture. Through selected texts and examples of how Jews and Christians interpret these texts differently, the course will explore the values and themes of the biblical traditions and their applicability to life.
Meets general academic requirement R (and W which applies to 212 only).

213, 214. Understanding the New Testament

Consideration of the varieties of faith in the New Testament. The class will examine in probable chronological sequence diverse Christian witnesses as they are reflected in the books of the New Testament. The study of the earliest forms of Jacobine, Pauline, Johannine, Petrine, and other Christian traditions will reveal the value systems by which they lived.
Meets general academic requirement R (and W which applies to 214 only).

219, 220. Paths in Jewish Thought

An historical and thematic consideration of leading thinkers and ways of thought in the Jewish tradition. Topics to be considered include: the relationship between the Jewish people and Judaism, relations between Judaism and other religions, faith and reason, the problem of evil, and Judaism and politics. Students will be exposed to primary sources including the Bible and Talmud, as well as medieval and modern Jewish thinkers.
Meets general academic requirement R (and W which applies to 220 only).

221, 222. Jewish Community Through the Ages

From biblical times to the present, living together in community has been important for Jews. This course examines the many forms that Jewish communities have taken over the centuries. In the first half of the

course, the student will encounter the development of Jewish society in the Biblical and Roman worlds, medieval adaptations, and the breakdown of traditional society in early modern Europe. The second half of the course will concentrate on the characteristics, problems and prospects of the American Jewish community. Particular attention will be paid to contemporary arguments about Jewish identity, intermarriage, American Jewish-Israeli relations, and Orthodox vs. liberal Jews.

Meets general academic requirement R (and W which applies to 222 only).

225. Buddhism from East to West

From its origins in India to its development throughout East and Southeast Asia, Buddhism has prospered in a wide variety of cultures and environments. Beginning with a brief overview of the transmission of Buddhism throughout Asia, the course will then explore various facets of Buddhism in America today—teachers, texts, poetry, philosophy, art, organizations, and practices. We will also consider ways in which America is changing Buddhism, particularly the powerful role American women have assumed, not only in America, but also throughout the Buddhist world.

Meets general academic requirement R.

227. Introduction to Islam

This course will survey the beliefs, practices, and history of Islam, focusing on how Islam has evolved over time and culminating in a close examination of the forms Islam takes today and the place of Islam in current events. Special consideration will be given to what it means to consider Islam as a religion rather than a cultural or political entity. Attention will also be given to Islam's relationship with other monotheistic traditions and to American Islam.

Meets general academic requirement D or R.

231. Christian Thinking

How do Christians view themselves, others, God, and the world? This course explores basic Christian ideas about topics such as evil, salvation of the world, and the community of faith. Why do Christians think the way they do? How do Christian thinkers interpret their religion? What parts of the tradition need to be revised in the face of contemporary developments such as the growing awareness of other religions?

Meets general academic requirement R.

244. Contemporary Roman Catholicism

A study of the theology, sacraments, ethical teachings, and church structure of the Roman Catholic Church, especially as reshaped under the influence of Vatican Council II (1962-1965). Some attention will be given to traditional understandings to see how they have been modified or reaffirmed. A major purpose of the course is to understand Christianity more deeply by examining the largest of the several Christian denominations.

Meets general academic requirement R.

246. The Lutheran Heritage

A study of the beliefs, teachings and practices of the Lutherans. The historic concerns which gave birth to and have shaped Lutheran identity and their significance in an ecumenical age will be examined. A major purpose of this course is to understand Christianity more deeply by examining one of its leading denominational embodiments. Offered in alternate years.

Meets general academic requirement R.

250. Religion in American Culture

This course will examine the influence of the new world on religious beliefs and practices carried by its immigrants, the role of religion in the formation and development of American culture, and the resulting patterns of religious life in contemporary America. Attention will be given to Protestantism, Judaism, Roman Catholicism, and selected other religious groups.

Meets general academic requirement R.

300. Religion & Its Critics

This course explores the long tradition of antagonism to organized religion. What have been the main criticisms of religion as an institution? Who have been its main critics? How is the criticism of religion

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related to philosophy, science and politics? The student will encounter historically influential criticisms of religion through close readings of texts from such authors as Lucretius, Machiavelli, Spinoza, Lessing, Kant, Hume, Feuerbach, Marx and Freud. The course will shed light on the complex relationships between religion and superstition, and religion and political power that underlie the classic critiques.

Meets general academic requirement P.

310-319. Topics in the Bible

A critical consideration of a selected biblical subject. The topic chosen will be of such significance that it promises to improve the students' appreciation of a Jewish or a Christian teaching about human beings, especially their nature, moral and ethical behavior, their relationship to their environment, or their destiny. Offered in alternate years.

Prerequisite: REL 211 or 212 Understanding the Hebrew Scriptures or REL 213 or 214 Understanding the New Testament

320. Religious Extremism: Violence, Politics, & Religion

Extremist religious-political movements have emerged in the late 20th century with tremendous power. From expressions of conservative Christianity in the U.S. to political Islam, the intense wedding of spiritual rigor with political struggle cannot be ignored. Religious extremism has changed the course of contemporary history and will continue to pose a challenge to the democracies in the 21st century. This course explores the history, sociology, and ideology of extremist movements in the three monotheistic traditions of Judaism, Christianity and Islam. Special attention will be paid to the current scene in the U.S., the Muslim world, and Israel.

Meets general academic requirement R.

322, 323. The Imagination in Religions & Literature

This course provides an exploration of the ways in which literary imagination (use of metaphor, literary style, narrative voice, description, and creative manipulation of time and place) interacts with religious imagination (projections of tradition, expression of mystical experience, ritual, and symbolic phenomena) to produce a work evocative of feeling and understanding. Examples from both Eastern and Western literary tradition may be chosen.

Prerequisite: any previous course in religion

Meets general academic requirement L (and W which applies to 323 only).

325-334. Topics in Religious Ethics

This course explores the moral worldview and judgments of one or more religious traditions. How does the religion under consideration understand human duty, aspiration, right and purpose? How does it construct a political and social order? The course includes consideration of both recurrent and contemporary moral problems such as war, self-defense, capital punishment, abortion, biomedical issues, and sexual ethics. Where more than one religion is treated, the emphasis will be on comparison of the two traditions.

Meets general academic requirement R.

335. The Holocaust & Its Impact

An examination of the destruction during the 1930's and 1940's of Jews, Gypsies, and other innocent groups in Europe. Some attention will be given to the historical events and their background in German history, but the course will focus on the implications of the Holocaust for today: for understanding moral priorities, human psychology, Western culture, and especially Jewish and Christian identity.

Meets general academic requirement R and W.

350-359. Topics in Gender & Religion

A critical examination of a selected topic dealing with females and/or males as related to religion. The course will explore ways in which gender influences the experiences, perspectives, practices, interpretation, iconography and communication of one or more religious traditions.

351. The Feminine in South Asia

This course engages in a close study of the various roles of the feminine in Hindu mythology, religious belief and practice, including the worship of goddesses and the principle of *Shakti*, the creative, animating force of the universe. Female identity and the lives of women in the cultures of South Asia are closely examined. Readings are chosen from the study of religion, anthropology, and narrative; film and audio media are also provided.

Meets general academic requirements D and R.

361. Psychology of Religion

A study of the relationship between psychology and religion and the ways in which major twentieth-century psychologists, including Freud and Jung, have approached the phenomena of religion as they relate to culture, society and the individual. The guiding question of the course asks whether a dynamic relationship exists between psychology and religion or whether they are mutually exclusive. Offered in alternate years.

Meets general academic requirement R.

401. Theory & Method in the Study of Religion

A survey of the various methods used in the study of religion and an examination of several theories about the nature of religion. Open to religion minors, religion majors, and others with instructor permission.

402. Seminar in the Study of Religion

An advanced research and writing seminar designed to refine the several skills employed in the academic study of religion. Individual research topics will be discussed and critiqued, and common themes which emerge will be explored. Open to senior religion minors, religion majors and others with instructor permission.

Meets general academic requirement W.

RUSSIAN STUDIES

Directors: Professor Albert A. Kipa and Associate Professor Luba Iskold

The Russian Studies major and minor programs provide students with an integrated interdisciplinary knowledge of Russian culture.

The programs prepare students for graduate work leading to careers in international organizations, the foreign service, research, and teaching. The programs are also intended to be of value for students who wish to focus their liberal arts education on Russian studies as part of an awareness of the growing importance of Russia and the Slavic world in current affairs.

The programs permit a student to major in Russian studies as well as another academic discipline, such as political science, international studies, history, the sciences, business administration, economics, communication, or another language. The programs also encourage the study of language and culture in Russia.

Major Requirements

Students majoring in Russian Studies must successfully complete RUS 204 Intermediate Russian II and any previous Russian language course with a grade point

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average of at least 2.000 or demonstrate an equivalent command of the language. All majors must maintain a grade point average of at least 2.000 in all courses attempted in the major.

Majors take nine courses beyond the College's language requirement, including:

Language

RUS 203 Intermediate Russian I
RUS 204 Intermediate Russian II
RUS 301 or 302 Russian Conversation & Composition

Literature (two courses are required)

Students choose from the following:
RUS 305 or 306 Readings in Russian Literature
RUS 401 Nineteenth Century Russian Literature in Translation
RUS 402 Twentieth Century Russian Literature in Translation

Culture

RUS 320 or 321 Russian Culture & Civilization

History

HST 263 or 264 Imperial Russia
HST 265 or 266 Soviet Russia

Electives (one or two courses are required depending on Russian language proficiency)

Students choose from the following:
PSC 234 or 235 Government & Politics of Russia & CIS
Another literature or history course among those listed above
REL 381 Orthodox Christianity: A Root of Russia
RUS 970 Russian Independent Study/Research or HST 970 History Independent Study/Research or PSC 970 Political Science Independent Study/Research

Minor Requirements

Students minoring in Russian Studies take six courses beyond the College's language requirement (which must be fulfilled in Russian), including:

Literature (one course is required)

Students choose from the following:
RUS 401 Nineteenth Century Russian Literature in Translation
RUS 402 Twentieth Century Russian Literature in Translation

Culture

RUS 320 or 321 Russian Culture & Civilization

History (one course is required)

Students choose from the following:

HST 263 or 264 Imperial Russia

HST 265 or 266 Soviet Russia

Political Science

PSC 234 or 235 Government & Politics of Russia & CIS

Electives (two courses are required)

Students choose from the following:

RUS 203 Intermediate Russian I

RUS 204 Intermediate Russian II

RUS 301 or 302 Russian Conversation & Composition

RUS 305 or 306 Readings in Russian Literature

REL 381 Orthodox Christianity: A Root of Russia

OR a second Russian literature or history course.

SOCIOLOGY (SOC) & ANTHROPOLOGY (ATH)

Head of Department: Associate Professor Tammy Lewis

Associate Professor: Abruzzi

Assistant Professors: Chi, Kovats-Bernat

Visiting Assistant Professor: VanDerwarker

Despite their often disparate areas of focus, a common aim links sociological and anthropological studies: the advancement of knowledge of who we are, how we came to be that way, and what the future may be. Both disciplines seek to understand how the myriad societies of the world work, and how people live, think, and behave, in our own and other societies. For more detailed information about the department, our courses, special programs, students, and faculty, please visit our website at <http://www.muhlenberg.edu/depts./soc-anth/index.html>

Sociology

Sociology is the study of group behavior and society. The realization that our social world – be it a family, a campus, a city, a nation, an entire world – guides our actions and life choices is an essential lesson of the discipline. To think sociologically is to realize how the general categories into which we fall shape our particular life experiences, and influence our thoughts, feelings, and actions. In doing so, sociologists examine the causes and consequences of human behavior; the goal is not to document a particular perspective of society, but rather to know how societies work and why. The field of sociology has broad scope. Topics of investigation range from intimate

relationships to the consequences of overpopulation; from shared religious beliefs to social movements promoting radical social change; from problems of poverty to corporate downsizing; from questions of group solidarity and shared identities to instances of group conflict and violence. Sociology provides a distinctive perspective on the world and addresses many challenging issues that are confronting society and the world today.

Anthropology

Anthropology is the study of the origins, evolution, and contemporary diversity of human beings as both biological and cultural organisms, from our emergence millions of years ago to our flourishing in the present. With a perspective that is among the most holistic of all academic disciplines, anthropology is divided into subfields that allow for a comprehensive and comparative assessment of the human species. Cultural anthropology engages the broad field of human cultural data (provided by language, ritual, kinship, religion, symbolism, politics, economics, and other areas of social life) in order to study variations in the beliefs and behaviors of members of different groups at the band, village, city, and state level. Physical anthropology includes the study of the genesis and development of our ancestral and living lineage by examining the biological, primatological, and hominid fossil data. Archaeology involves the reconstruction of the human past through the analysis of architectural, artifactual, and human remains. The breadth of the subject matter means that anthropology may study Mayan hieroglyphics, the fossil remains of extinct human ancestors, the everyday lives of street children in Latin America, the fertility rituals of New Guinea Highlanders, the rise of civilization in the Middle East, spirit possession and animal sacrifice in Vodou, chimpanzee communication systems, and more. For an anthropologist, diversity itself – in all of its manifestations of body shapes and sizes, customs, technologies and worldviews – provides a frame of reference for understanding any single aspect of human life in any given society.

Honors Program

We offer an honors program that includes conducting advanced original research through a close working relationship with a faculty member. Requirements for admission to the honors program include: 1) 3.6 GPA in sociology and anthropology and an overall 3.0 at the time of application; 2) the successful completion of at least two 300-level electives in the department; and 3) an application that includes a statement of purpose and a proposal for the research project. The application must be given to the faculty advisor and the head of the department by April 15 of the junior year. For more details see the department website.

Career Considerations

We offer a graded sequence of courses that is designed to help students understand and comprehend the central concepts, principles, issues, and methods associated with these two disciplines, and to see how sociological and anthropological research is connected to research in other disciplines. Majors from the department have a strong record of successful applications to graduate programs across the country, and have

found careers in teaching and research at the university level. Due to the department's emphasis on methodological rigor, our graduates are often employed in law, civil service, social services, education, social work, public health and policy, human resource management, marketing research companies, and non-profit research organizations. International organizations such as the United Nations, World Bank and World Health Organization regularly hire sociologists and anthropologists for research and policy analysis, and they can also be found working in museums and national parks.

SOCIOLOGY (SOC)

Major Requirements

Required Courses:

- SOC 101 Introduction to Sociology
- SOC 205 Sociological Theory
- SOC 311 Research Methodology I
- SOC 312 Research Methodology II
- MTH 104 Statistical Methods

Electives (5 or more of the following courses, of which at least 3 must be at the 300 level or above)

- SOC 105 The Family
- SOC 115 Introduction to Social Work
- SOC 224 American Ethnic Diversity
- SOC 260 Human Population Growth
- SOC 270-279 Topics in Sociology
- SOC 320 Environmental Sociology
- SOC 325 Imagined Communities: The Sociology of Nations & States
- SOC 335 Inequality & Power
- SOC 340 Sociology of Development
- SOC 350 Social Movements
- SOC 450 Senior Seminar

Minor Requirements

Required Courses:

- SOC 101 Introduction to Sociology
- SOC 205 Sociological Theory
- SOC 311 Research Methodology I

Electives (3 or more of the following courses, of which at least 1 must be at the 300 level or above)

- SOC 105 The Family
- SOC 115 Introduction to Social Work

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SOC 224 American Ethnic Diversity
SOC 260 Human Population Growth
SOC 270-279 Topics in Sociology
SOC 312 Research Methodology II
SOC 320 Environmental Sociology
SOC 325 Imagined Communities: The Sociology of Nations & States
SOC 335 Inequality & Power
SOC 340 Sociology of Development
SOC 350 Social Movements
SOC 450 Senior Seminar

101. Introduction to Sociology

What is sociology? How do sociologists go about their work? How is society structured? Is inequality an inherent part of human life? How and why do societies change? This course introduces the central concepts and principles of major sociological perspectives. It provides an overview of the study of social institutions, social stratification, and social change.

Meets general academic requirement B.

105. The Family

A study of the family as a social institution, including its development in the United States and other urban industrial societies, and the changes it is currently experiencing.

Meets general academic requirement B.

115. Introduction to Social Work

An introduction to the philosophy, theories, method and profession of social work. Emphasis is on individual, group and community behavior, the social institutions that affect behavior and the public and private agencies which exist to amend behavior problems.

Meets general academic requirement B.

205. Sociological Theory

An investigation of the classical foundations of social thought in sociology. The course will concentrate on the original works of authors such as Marx, Weber, Durkheim and other important authors from the nineteenth and early twentieth centuries as well as contemporary theorists. Analyses of central theoretical paradigms and questions are explored. Taught every spring semester.

Prerequisite: SOC 101 Introduction to Sociology

Meets general academic requirement W.

224. American Ethnic Diversity

A sociological study of the diverse native and immigrant peoples who comprise the United States. The course will emphasize the social life, experience and impact of American Indians, Asian Americans, Latin Americans, African Americans and other peoples who have contributed to the diversity of American society. The course will also examine the role that ethnicity and ethnic relations have played in the history and development of American society.

Prerequisite: SOC 101 Introduction to Sociology

Meets general academic requirement D.

260. Human Population Growth

This course explores the interaction between population growth, economic development and environmental resources from anthropological, sociological and demographic perspectives. The course examines different theories of population growth; the ecological and social factors which influence population growth; the relation between population growth and economic development; the environmental implications of population growth; and the impact that colonialism, industrialization and globalization have had on contemporary local, national and international populations. Taught every other year.

Prerequisite: ATH 112 Cultural Anthropology or SOC 101 Introduction to Sociology

Meets general academic requirement B.

270-279. Topics in Sociology

Selected courses with a specialized focus that are not contained within the regular sociology curriculum. Such topics might include Ethnic Relations, The Ecology of the City or Religion in American Society.

Prerequisite: SOC 101 Introduction to Sociology

311. Research Methodology I (Cross-listed as ATH 311)

This course provides experience in the design and implementation of sociological research. It covers qualitative techniques for collecting, analyzing, and reporting data. We examine the epistemological issues that underlie social research, the ethical questions involved in research, and the assumptions on which various research strategies are based. We evaluate the strengths and weaknesses of the most commonly used methods. Students will design an original research project. Taught every fall semester.

Prerequisite: SOC 205 Sociological Theory or ATH 205 Anthropological Theory

Meets general academic requirement W.

312. Research Methodology II (Cross-listed as ATH 312)

A continuation of Research Methodology I. This course focuses on quantitative methods. Students will learn how to use statistics to address research questions in sociology and anthropology. Students will use popular statistical packages such as SPSS to analyze data. Taught every spring semester.

Prerequisite: SOC 311 Research Methodology I and MTH 104 Statistical Methods

Meets general academic requirement W.

320. Environmental Sociology

This course analyzes the social causes and consequences of environmental change. We explore the relationships among production, consumption, population, technology, and environment. The major theoretical paradigms in environmental sociology are used to analyze environmental issues. Some of the questions we address include: Is "green" capitalism possible? Does population growth lead to environmental degradation? Can technical fixes solve environmental problems? Has the environmental movement been successful? Offered every other year.

Prerequisite: SOC 101 Introduction to Sociology or ATH 112 Cultural Anthropology

Meets general academic requirement B.

325. Imagined Communities: The Sociology of Nations & States

A sociological study of nationalism and state formation in post-colonial societies. Readings will be drawn from classic works in political sociology focusing on theories of power and theories of the state. Using selected case studies from "non-Western" parts of the world with an emphasis on Asia, the course examines the emergence and persistence of nationalism, and studies the implications of globalization upon the processes of politicizing identities—ethnicity, nation, class, and gender—as they react to new forms and arrangements of power. Possible topics may include: interrelationships between identity construction and politics; causes and consequences of ethnic conflict and accommodation; political economic development in post-colonial contexts; and questions of citizenship and nationality amidst global migrations and socio-cultural changes. Offered every other year.

Prerequisite: SOC 101 Introduction to Sociology

Meets general academic requirement D.

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335. Inequality & Power

A sociological examination of the various factors underlying differences in wealth, power, and prestige in contemporary urban industrial societies, with emphasis on the dynamics of class, ethnic, racial and gender stratification. Taught every other year.

Prerequisite: SOC 101 Introduction to Sociology

340. Sociology of Development

This course analyzes development from a sociological perspective. It examines different theoretical models for understanding macro-level social change. Possible topics for exploration include the environment, economic development, revolution, urbanization, population, and poverty. Taught every other year.

Prerequisite: SOC 101 Introduction to Sociology or ATH 112 Cultural Anthropology

Meets general academic requirement B.

350. Social Movements

A sociological investigation of the causes and consequences of social movements. The course will examine both historical and contemporary social movements in the United States and elsewhere to understand the underlying social, economic, political and demographic factors that cause their emergence and that influence their evolution. Movements as diverse as the Civil Rights movement and the White Supremacy movement will be examined. Taught every other year.

Prerequisite: SOC 101 Introduction to Sociology or ATH 112 Cultural Anthropology

Meets general academic requirement B.

450. Senior Seminar in Sociology and Anthropology (Cross-listed as ATH 450)

A research practicum in which students develop and carry out independent research projects. Open only to sociology and anthropology majors and minors. Taught every year.

Prerequisite: SOC 311 Research Methodology I and either SOC 205 Sociological Theory or ATH 205 Anthropological Theory

Meets general academic requirement W.

ANTHROPOLOGY (ATH)

Major Requirements

Required Courses:

ATH 111 Human Evolution
ATH 112 Cultural Anthropology
ATH 115 Archaeology
ATH 311 Research Methodology I
ATH 312 Research Methodology II
ATH 360 Anthropological Theory
MTH 104 Statistical Methods

Electives (4 or more of the following courses, of which at least 2 must be at the 300 level or above)

ATH 224 Peoples of Africa
ATH 227 The American Southwest
ATH 230 Native American Ecology
ATH 235 Culture and Society in the Caribbean
ATH 240 Witchcraft, Magic and Sorcery

ATH 250 Anthropology of Sex and Gender
ATH 255 World Prehistory
ATH 260 Vodou and Zombification
ATH 270-279 Topics in Anthropology
ATH 310 Human Ecology
ATH 317 Field Archaeology
ATH 320 Anthropology of the Child
ATH 325 Primate Behavior
ATH 360 The Origin and Evolution of Religious Movements
ATH 370 The Ethnography of Violence
ATH 450 Senior Seminar

Minor Requirements

Required Courses:

ATH 111 Human Evolution
ATH 112 Cultural Anthropology
ATH 115 Archaeology
ATH 360 Anthropological Theory

Electives (2 or more of the following courses, of which at least 1 must be at the 300 level or above)

ATH 224 Peoples of Africa
ATH 227 The American Southwest
ATH 230 Native American Ecology
ATH 235 Culture and Society in the Caribbean
ATH 240 Witchcraft, Magic and Sorcery
ATH 250 Anthropology of Sex and Gender
ATH 255 World Prehistory
ATH 260 Vodou and Zombification
ATH 270-279 Topics in Anthropology
ATH 310 Human Ecology
ATH 311 Research Methodology I
ATH 312 Research Methodology II
ATH 317 Field Archaeology
ATH 320 Anthropology of the Child
ATH 325 Primate Behavior
ATH 360 The Origin and Evolution of Religious Movements
ATH 370 The Ethnography of Violence
ATH 450 Senior Seminar

111. Human Evolution

This course introduces students to the scientific concepts, principles, methods and research pertaining to human biological evolution. The course begins with a discussion of evolutionary theory and then applies evolutionary theory to examine: (1) contemporary human biological diversity, (2) the biological and behavioral similarities and differences among humans and nonhuman primates, and (3) the fossil evidence for human evolution.

Meets general academic requirement S.

112. Cultural Anthropology

This course introduces students to the concepts, principles, and methods used by cultural anthropologists to understand and explain the diversity of human societies throughout the world. It combines a cross-cultural analysis of different social institutions with the systematic examination of the behavior of individual societies in order to promote a rational understanding of human social and cultural diversity.

Meets general academic requirement D.

115. Archaeology

An introduction to the methodology and theoretical concepts used in the scientific acquisition and transformation of archaeological data into interpretations and explanations of cultural behavior, adaptations and culture change.

Meets general academic requirement B.

205. Anthropological Theory

This course examines the development of anthropological theory from the 19th century to the present. It critically evaluates major figures in the field and the principal schools of thought, including Evolutionism, Dialectical and Historical Materialism, Historical Particularism, Functionalism, Structuralism, and modern Materialist theories. The central theme of the course is to evaluate the scientific validity and utility of the different anthropological research strategies. The course also explores contemporary anthropological approaches which question the application of traditional scientific research methods in anthropological research. Taught every spring semester.

Prerequisite: ATH 112 Cultural Anthropology

Meets general academic requirement W.

224. Peoples of Africa

An overview of the social and cultural diversity of Africa. The course examines how both the geographic diversity of the African continent and the demographic characteristics of its people underlay the continent's extensive cultural diversity. The course also explores the impact that contemporary social, economic and political developments have had on indigenous African societies.

Meets general academic requirement D and W.

227. The American Southwest

An introduction to the complex and dynamic relationship that has existed between people and the environment in the American Southwest. The course examines prehistoric, historic and contemporary developments in the American Southwest in order to illustrate the region's rich ecological and cultural diversity and to show the effect that human occupation and resource exploitation have had on regional social and ecological relations.

Meets general academic requirement W.

230. Native American Ecology

Much has been written claiming a unique relationship between American Indians and the environment. This course critically examines this literature by systematically exploring the ecology of Native American peoples and by emphasizing the role that human-environmental relations played in the evolution of native societies prior to European contact. The course also examines the impact that ecological factors played in determining the history of both Indian-Indian and Indian-White relations.

Prerequisite ATH 112 Cultural Anthropology or SOC 101 Introduction to Sociology

Meets general academic requirement D.

235. Culture & Society in the Caribbean

An anthropological inquiry into the sociocultural life of creole populations in the Caribbean Basin. This course will explore the lifeways of the pre-Columbian Arawak Indians, the emergence of plantation agriculture, the cultural legacies of European and American colonial contact, and the social dynamics of Caribbean nationhood. Attention will be paid to creole languages, religions, economic infrastructures, political institutions, and other social relations. Topics to be addressed include: colonialism, creolization,

liberation theology, Rastafari, Vodou, Santeria, U.S.-Caribbean relations, modernization and development, international trade relations, revolution, and democratization.

Meets general academic requirement D.

240. Witchcraft, Magic & Sorcery

This course will examine beliefs and practices of witchcraft, magic and sorcery in both Euro-American and non-Western societies. Emphasis will be placed on comparative analysis of the dynamics and functions of magical practice in cross-cultural context. Special attention will be paid to answering the following questions: What sorts of cultural information is transmitted through acts of conjuring and witchcraft? What are the social functions of magical ritual? Why do cultures embrace notions of malevolent supernatural power? How is sorcery used to control social behavior? Topics to be addressed throughout the course include the functions of ritual, shamanism, the casting of spells, vampirism, divination, possession, sacrifice, and the use of oracles. Taught every other year.

Prerequisite: ATH 112 Cultural Anthropology or permission of instructor

Meets general academic requirement R.

250. Anthropology of Sex & Gender

A scientific examination of cross-cultural differences in the definition of sex and gender and of the behavior associated with specific gender categories. Topics covered include: the distinction between sex and gender; "Third Genders", household economy and organization; monogamy, polygyny and polyandry; infanticide; violence and aggression; gender stratification; circumcision and subincision, and the evolution of gender roles in human society.

Prerequisite: ATH 112 Cultural Anthropology or SOC 101 Introduction to Sociology

Meets general academic requirement W.

255. World Prehistory

An introduction to human prehistory. This course focuses on the origin of human culture, the beginnings of agriculture and the rise of civilization in both the old and new worlds. Taught every other year.

260. Vodou and Zombification

This course employs an anthropological approach in examining the symbols and rituals of Haitian Vodou, as well as their relationship to larger economic, political and cultural issues of peasant life. Students will draw on ethnographic sources in order to gain an understanding of the construction of the Vodou cosmology and humanity's unique place within it amid the spirits and specters of the invisible world. Attention will be paid in particular to rites of zombification and other acts of sorcery, and their instrumental role in effecting social control in the Haitian countryside. The course will also address the diffusion of Vodou cults into the Haitian diaspora communities of North America.

Prerequisite: ATH 112 Cultural Anthropology or permission of instructor

Meets general academic requirements D and R.

270-279. Topics in Anthropology

Selected courses with a specialized focus on topics that are not contained within the regular anthropology curriculum. Topics covered might include Economic Anthropology, Political Anthropology, Hunters and Gatherers, etc.

Prerequisite: ATH 112 Cultural Anthropology

310. Human Ecology

Ecology is the scientific study of the relations between living organisms and their environment. Human ecology comprises the explicit application of ecological concepts, principles, and scientific methodology to explain the adaptation and evolution of human populations and communities. Topics covered include energy flow, nutrient cycling, population ecology, community evolution, resource competition and disease ecology. The course also examines how the principles of human ecology enhance our understanding of contemporary environmental issues. Students will complete a scientific research project. Taught every other year.

Prerequisite: ATH 112 Cultural Anthropology or ESC 113 Environmental Science

Meets general academic requirement S.

311. Research Methodology I (Cross-listed as SOC 311)

This course provides experience in the design and implementation of sociological research. It covers qualitative techniques for collecting, analyzing, and reporting data. We examine the epistemological issues that underlie social research, the ethical questions involved in research, and the assumptions on which various research strategies are based. We evaluate the strengths and weaknesses of the most commonly used methods. Students will design an original research project. Taught every fall semester.

Prerequisite: SOC 205 Sociological Theory or ATH 205 Anthropological Theory

Meets general academic requirement W.

312. Research Methodology II (Cross-listed as SOC 312)

A continuation of Research Methodology I. This course focuses on quantitative methods. Students will learn how to use statistics to address research questions in sociology and anthropology. Students will use popular statistical packages such as SPSS to analyze data. Taught every spring semester.

Prerequisite: ATH 311 Research Methodology I and MTH 104 Statistical Methods

Meets general academic requirement W.

317. Field Archaeology

A four-week intensive analysis of a particular archaeological site. Utilizing the methodological and theoretical concepts of anthropological archaeology, students will be required to participate in every phase of the scientific research process. Typically offered during the summer sessions only.

Prerequisite: ATH 115 Archaeology

320. Anthropology of the Child

This course will explore the significance of children in diverse social, political, and economic contexts. It will situate childhood as a dynamic site of cultural construction and interpretation, while considering the broad cross-cultural definitions and uses of children in local and global discourse. Topics may include historical constructions of childhood, cross-cultural definitions of childhood, the relationship of child to kin group, surrogacy, in-vitro fertilization, infanticide, issues in pediatric care, children's rights, domestic child abuse, child soldiers, street youth, and adolescent involvement in politics and violence.

Prerequisite: ATH 112 Cultural Anthropology

Meets general academic requirement B

325. Primate Behavior

An examination of the natural history of non-human primates from an evolutionary, ecological and social perspective. Includes a survey of the primate order and an assessment of the behavioral characteristics of each major group relative to modern evolutionary theory. Emphasis is placed on the similarities and differences which exist among non-human primates and their implications for understanding the evolution of human behavior.

Prerequisite: ATH 111 Human Evolution

360. The Origin and Evolution of Religious Movements

This course explores the role that the political economy plays in the origin and evolution of religious movements. Several specific religious movements are examined in order to illustrate both the pervasiveness of this type of social movement and the commonality underlying such movements. Movements examined include: the Ghost Dance among the Plains Indians; Cargo Cults among South Pacific islanders; the Kimbangist and Mau Mau movements in Africa; selected Islamic Movements in Africa and the Middle East; Mormonism in the United States; the Jesus Movement in Roman Palestine, and the contemporary rise of religious fundamentalism. Taught every other year.

Prerequisite: ATH 112 Cultural Anthropology

Meets general academic requirement W.

370. The Ethnography of Violence

A cross-cultural analysis of the definitions, causes, and resolutions to social violence and conflict, and the anthropological theories and methods used to study them. The goal of this course is to impart analytical thinking with regard to situations of collective violence in diverse cultural milieus through an intensive study of contemporary ethnographic fields of conflict. Emphasis will be placed on the critical dissection of the cultural, economic and political strategies and social factors influencing actors in their negotiations of dispute and strife. Topics to be examined include warfare, terrorism, political violence, riot, insurrection, torture, and mechanisms of social control.

Prerequisite: ATH 205 Anthropological Theory or permission of instructor

Meets general academic requirement W.

450. Senior Seminar in Sociology and Anthropology (Cross-listed as SOC 450)

A research practicum in which students develop independent research projects. Students will design and carry out an original research project. Open only to sociology and anthropology majors and minors.

Prerequisite: ATH 311 Research Methodology and either SOC 205 Sociological Theory or ATH 205 Anthropological Theory

Meets general academic requirement W.

THEATRE (THR), SPEECH (SPC)

Head of Department: Professor Charles C. Richter

Professors: Cartelli, Dretsch

Associate Professors: Allen, Averill, Coppa, Dearborn, Peck

Assistant Professors: Anderson, Roussel, Schachter

Lecturers: Case, Dwyer, Theisen

The theatre program at Muhlenberg engages students in the artistic and intellectual processes that enable them to make and analyze theatre and performance. The required creative work of the major program includes acting, directing, design, and critical writing, supplemented by offerings in stage management and playwriting. Students emerge with extensive knowledge of the literature and performance traditions of the theatre. Grounded in the liberal arts tradition, the department is committed to the study of theatre as a way of knowing the world. The major serves as an excellent preparation for advanced study (M.A., M.F.A., Ph.D. degrees) and careers in the theatre arts.

In keeping with the department's dedication to live performance, theatre at Muhlenberg joins with the dance program to form the Department of Theatre and Dance. The faculty, staff and students in both areas work closely together in the department's performance program. Please refer to the Dance section of this catalog for a more detailed explanation of the Dance program. Students with a serious interest in musical theatre performance can study acting and dance in the Department of Theatre and Dance and receive vocal training in the Department of Music. At least one major musical production is presented each year as part of the performance program.

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An important feature of theatre education at Muhlenberg is the award-winning performance program. The production season is grounded in the belief that as an academic discipline, theatre must be simultaneously intellectual and experiential. Presented under the auspices of the Muhlenberg Theatre Association, each year six major theatre productions and several studio performances occur in the state-of-the-art Trexler Pavilion for Theatre and Dance and the Dorothy and Dexter Baker Center for the Arts. In addition, the department sponsors touring educational pieces offered to local schools and community groups. All students, regardless of major, are eligible to participate in the performance program and work on production crews.

Ongoing visiting artist and educational exchange programs expose students to the work of theatre practitioners from outside the college. The Baker Artist-in-Residence Program brings distinguished professional guest artists to Muhlenberg each year to teach and participate in the performance program. In addition to the Baker artists, the department employs three or more other guest professional artists each year in the performance program and as adjunct instructors. Each summer, students may audition for the Muhlenberg Summer Music Theatre Festival Company, a high-quality professional stock operation that presents three full productions in College facilities. Theatre majors are encouraged to spend a semester in England studying at Goldsmith's College of the University of London.

MAJOR PROGRAMS

All students will take 12 courses, 9 in the theatre department and 3 in cognate disciplines. Students in the theatre major must opt for one of five concentrations: Acting, Directing, Design and Technical Theatre, Stage Management, and Performance Studies. Students majoring in theatre may double major or minor in dance. Students with a strong interest in musical theatre are encouraged to double major or minor in music; or major in theatre and minor in music and dance.

Core Courses (2 courses):

All theatre students must enroll in the following two courses to provide an overview of the field:

- THR 100 Theatre and Society: An Historical Introduction
- THR 160 Stagecraft: Techniques and Aesthetics

Theatre Scholarship (5 courses):

These courses give students a substantive encounter with important movements and traditions in theatre and introduce influential methods of analyzing theatre. All majors take five courses selected from three categories: Dramatic Literature, Theatrical and Aesthetic Theory, and Theatre History.

Three of these courses must be *Cognates*, taken outside the theatre department; One course must address primarily pre-modern* material.

Dramatic Literature (at least one course):

Cognates

CLS 310 or 311 Classical Drama*
ENG 319 Shakespeare I*
ENG 321 Shakespeare II*
ENG 354 Modern Drama
ENG 369 Postwar Drama
GRM 480 Readings in German Drama
SPN 412 Spanish Theatre in the Golden Age

Theatrical & Aesthetic Theory (at least one course):

THR 211 or 212 Performance Studies
THR 301 or 302 Feminist Theories
THR 312 or 313 Materialist Theories

Cognates

PHL 236 Philosophy and the Arts
REL 206 Religion and the Performing Arts in India

Theatre History (at least one course):

THR 230 or 231 Post-Independence African Theatre
THR 232 or 233 Nineteenth-Century American Theatre
THR 330 or 331 Historiography of Theatre History
THR 333 Renaissance Plays in Process

Cognates

ENG 327 The Eighteenth Century
ENG 377 Contemporary Drama and Performance Art
MUS 227 Opera

Area of Concentration (5 courses):

Students select one concentration. These courses allow students to pursue their artistic scholarly interests at an advanced level.

Acting Concentration:

THR 250 Acting I: Process
THR 251 Acting II: Scene Study

Two acting courses at the 300 level. *One of these must be THR 350 or THR 351 for verse work.*

THR 350 Acting Classical Verse
THR 351 Commedia dell 'Arte
THR 352 Experiments in Acting
LTS 302 Performance (at Goldsmith's College, University of London)

One directing course selected from:

THR 370 Fundamentals of Directing
THR 371 Directing: Process in Production
THR 372 Major Directors: Theory and Practice

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Directing Concentration:

THR 161 Design for the Theatre
THR 250 Acting I, Process
THR 251 Acting II, Scene Study

Two courses in directing selected from:

THR 370 Fundamentals of Directing
THR 371 Directing: Process in Production
THR 372 Major Directors: Theory and Practice

Design Concentration:

One acting course:

THR 150 Introduction to the Art of Acting **OR**
THR 250 Acting I: Process
THR 161 Design for the Theatre

Two intermediate design courses selected from:

THR 260 Scene Design I
THR 261 Stage Lighting I
THR 262 Costume Design I

One advanced design course selected from:

THR 360 Scene Design II
THR 361 Stage Lighting II
THR 362 Costume Design II

Stage Management Concentration:

The Stage Management Concentration requires 6 courses, but remains only 5 credit units. Due to the practicum requirements for this concentration, the students take two 0.5 credit stage management classes.

One acting course:

THR 150 Introduction to the Art of Acting **OR**
THR 250 Acting I: Process

THR 161 Design for the Theatre
THR 163 Introduction to Sound Design
THR 261 Lighting Design I
THR 164 Stage Management (0.5)
THR 970 Independent Study (0.5)

Performance Studies Concentration:

One acting course:

THR 150 Introduction to the Art of Acting **OR**
THR 250 Acting I, Process

One directing course selected from:

THR 370 Fundamentals of Directing
THR 371 Directing: Process in Production

THR 372 Major Directors: Theory & Practice

Three more courses in Theatrical & Aesthetic Theory or Theatre History to be chosen from those listed in the basic categories above OR from additional cognates listed below specifically (and only) for Performance Studies Concentrators:

ATH 240 Witchcraft, Magic and Sorcery

ATH 260 Vodou and Zombification

DNC 101 or 102 Introduction to Dance History

DNC 150 African Dance and Culture

DNC 201 Dance History II

MUS 225 World Music

Performance Studies Concentrators must take THR 211 or 212 Performance Studies to fulfill their basic requirement Theatrical and Aesthetic Theory.

THEATRE (THR)

PERFORMANCE THEORY, HISTORY, AND LITERATURE

100. Theatre and Society: An Historical Introduction

Students in this course study the historical development of world theatre, with an emphasis on the western dramatic tradition, as a way of understanding how the theatrical experience reflects the society in which it exists. A broad range of theatrical literature and theoretical material will be explored. The members of the class will attend several live theatrical performances and are required to complete production laboratory hours. Open to all Muhlenberg students, this is the foundation course for the theatre major. Students planning to major in theatre should complete this course in their first year.

Meets general academic requirement A.

190. Foundations of the Creative Arts

Students will investigate the basic aesthetic concepts in visual arts, music, dance and drama. They will examine the arts as a way of perceiving the world, reflecting and challenging cultural norms, and expressing new ideas. By exploring and experiencing the fundamental skills used in the creative process, students will discover their own connection to the arts as a means of personal expression. Through a primarily studio experience, students will have the opportunity to engage a variety of art forms as part of the process of learning an aesthetic language. This objective will be achieved most effectively as students actively work in and through multiple artistic perspectives. **Open to teacher certification candidates only.**

Meets general academic requirement A.

211, 212. Performance Studies

This course introduces the burgeoning interdisciplinary field of performance studies. Performance studies investigates the human body engaged in symbolic action using methods drawn from such disciplines as the performing arts, cultural anthropology, ritual studies, and popular culture studies. Thus, it analyzes aestheticized forms like theatre, performance art, dance, and music, but also inquires into cultural performances like political protests, fashion shows, sporting events, and worship services. Students will learn the basic history of the field and develop a working knowledge of its scholarly methods and proclivities.

Meets general academic requirement W when offered as 212.

230, 231. Topics in Theatre History: Post-Independence African Theatre

This course examines theatre in Africa beginning from the anticolonial independence movements of the 1950s and continuing to the present. It does not purport to offer a comprehensive view of Africa's diverse theatrical traditions, but examines several regions, heritages, and time periods attentive to both commonalities and differences. Particular attention will be given to theatre's function as an agent of social and political change. Theoretical concerns are likely to include theatre and nationalism, negritude and its

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critics, the relationship between theatre and ritual, the role of women, and the interaction of indigenous African performance practices with western theatre.

Meets general academic requirement H and D (and W when offered as 231).

232, 233. Topics in Theatre: Nineteenth-Century American Theatre

The American theatrical scene of the nineteenth century gave birth to myriad popular forms: minstrelsy, melodrama, burlesque, and vaudeville. In addition, several important art-theatre forms grew up alongside, and in reaction to, these mainstream entertainments. This course engages students with the historical evidence and recent scholarship on American theatre in the 1800s. The class will examine the development of multiple systems of theatre in the United States during this time period. Reading texts addressing the entire range of theatrical material (performance, marketing, architecture, stage illusions, and scripts), students will trace the rise of nationalism on the stage and in the audiences of the popular theatres.

Meets general academic requirement H (and W when offered as 233).

301, 302. Theories of the Theatre: Feminist Theories

This course introduces students to the intellectual viewpoints, critiques, and new questions (and the new objects of study to match the new questions) that have arisen in the late twentieth and early twenty-first centuries feminist theories of the theatre. In order to move through the theoretical models employed by feminist critics in the theatre, we will begin with those key essays in film theory, semiotics, and materialist analysis that contributed to the current body of theoretical feminist material. Reading theories of reception and representation, of race and whiteness, and of unmaking mimesis, students will become familiar with analyses articulated by contemporary scholars. As objects of study upon which to practice these theoretical approaches, the class will read contemporary plays of feminist writers. In addition, as part of our re-reading of canonical works, students will look at texts such as Aristophanes' *Thesmophoriazusae* (*Ladies Day*). Reading theoretical essays as well as scripts, we will explore the complex embodiments of gender as performance. Ultimately, we will apply the materialist theories which integrate psychoanalytic approaches with Foucaultian analysis to reveal, through their re-framing, complex processes of making and experiencing theatrical representation. These critical languages will give us the tools to understand the implications of how plays construct our ideas about gender, race, sexuality, class, and national identity.

Prerequisite: THR 100 Theatre and Society: An Historical Introduction or permission of instructor

Meets general academic requirement W when offered as 302.

312, 313. Theories of the Theatre: Materialist Theories

This course investigates materialist approaches to the analysis of theatre. Students will learn to conceptualize the theatre as an arena of cultural production and social struggle. The course will encompass classical texts of the materialist tradition by such authors as Karl Marx, Antonio Gramsci, and Walter Benjamin, as well as contemporary applications and revisions of those ideas. Recent thinkers might include Raymond Williams, Augusto Boal, Jill Dolan, Ric Knowles, Femi Osofisan, and David Savran.

Prerequisite: THR 100 Theatre and Society: An Historical Introduction or permission of instructor

Meets general academic requirement W when offered as 313.

330, 331. Historiography of Theatre History

This course introduces a variety of methods used to interpret the theatrical past with particular emphasis on the conceptual assumptions undergirding the practices of historians. Students will examine different ways scholars have both reconstructed the content of historical performances and established their social significance, encountering histories of acting, audiences, staging conventions, and theatre spaces.

Prerequisite: THR 100 Theatre and Society: An Historical Introduction or permission of instructor

Meets general academic requirement H (and W when offered as 331).

333. Renaissance Plays in Process

This course will involve students in intensive semester-long research projects focused on the social, political, literary, and cultural conditions that informed the composition, structure, and production of one or two plays of the Elizabethan and Jacobean periods. As such, it will require students to perform hands-on research on subjects ranging from the status of women in Elizabethan England; established and evolving

views on marriage; legal statutes and judicial practices; crime and punishment; the licensing and censorship of plays; attitudes toward homosexual practices; social mobility; the legal and social standing of citizens, apprentices, foreigners, and masterless men, etc. The plays we will focus on will be topically or historically oriented, either drawn from the annals of English history, e.g. Marlowe's *Edward II*, from the news of the day, or from pronounced social anxieties of the time, such as the fear of witches. The course will require students to develop a broad range of interpretive skills, and encourage them to bring their enriched understanding of the plays into the present in the form of research papers, study guides, production histories, black-box performances, set-designs, and video projects.

Prerequisite: THR 100 Theatre and Society: An Historical Introduction or ENG 275 or permission of instructor.

400, 401. Advanced Topics in Theatre and Performance Studies

This course examines a specialized topic in the field of theatre or performance studies. Possible subjects include: popular entertainments, queer performance, or street theatre.

Prerequisite: A THR 100 level and one additional theatre course or permission of the instructor.

Meets general academic requirement W when offered as 401.

The following dramatic literature courses from the English department are an integral part of the theatre curriculum: ENG 319 Shakespeare I; ENG 321 Shakespeare II; ENG 354 Modern Drama; ENG 369 Postwar Drama; and ENG 377 Contemporary Drama & Performance Art. PHL 236 Philosophy and the Arts, REL 206 Religion and the Performing Arts in India and MUS 227 Opera, can also fulfill cognate requirements in the Theatre major.

THEATRE STUDIO PERFORMANCE COURSES

ACTING

150. Introduction to the Art of Acting

A survey of acting theories and practice culminating in the rehearsal and performance of scenework. The course is designed for non-majors and those who plan to major in theatre but have limited previous acting training. The first part of the semester will examine a variety of approaches to the art of acting, including those of Stanislavski, Artaud, Brecht, the Elizabethans and one or more non-European traditions. Students will be asked to consider the basic assumptions about the nature and function of theatre implied by each approach. The balance of the work will consist of exercises to explore the intentional and communicative nature of concentration, introductory Meisner technique, improvisation and the acquisition of a basic acting vocabulary. To gain a practical understanding of the preparatory work, each student, with one or more partners, will rehearse and perform a scene from the modern American theatre. Meets four hours per week.

Meets general academic requirement A.

151. Voice and Speech for the Actor

Employing techniques devised by Linklater, Lessac, and Skinner, this course aims to refine (1) released, unrestricted, supported vocalization for the stage and (2) clear, articulate speech for the stage. Both the International Phonetic Alphabet (IPA) and the phonetic annotative scheme of Arthur Lessac are introduced as the phonemes that make up spoken Standard American English and are catalogued and practiced. Students addressed the phonetic bases of their own regional dialects with an ear toward acquiring vocal habits to support acting choices in a wide range of roles.

152. Movement Workshop for Actors and Dancers

Studio work to expand one's range of expression by crossing borders between dance/theatre/sound. Elements include: Modern Dance, Sound and Movement Improvisation, Contact Improvisation, Body Therapies, Yoga, and Theatre Studies.

250. Acting I: Process

The beginning class in the acting sequence, this class lays the foundations for the ultimate goal of the acting program: to create an actor who knows how to work on a role within the context of the play, and who has flexibility in their craft. The focus of the class will be on acting process, including relaxation work; how to critique; commitment to language, sound, emotional connection, and movement; the active choice; and actor's text analysis. Actors will be judged on their individual growth and also on their ability to work as an ensemble member within the class. This course is the building block leading into scene work and a requirement of the class will be a fully staged scene. Possible readings from Stanislavsky, Peter Brook, Chekhov, Williams, Shephard, and other writers. Films may be shown as an example of craft. Class meets for six hours a week.

Prerequisite: THR 100 Theatre and Society: An Historical Introduction

251. Acting II: Scene Study

Building on the foundations taught in Acting I, this class moves the student actor into scene work. Primary focus in the class is on American realistic text, with the possibility of moving into increasingly difficult texts from the modern canon. Class will explore the tools of the actor, including: text analysis, critique, commitment to action, linking choices to the larger structure of the play, theatricality, language, impulse work, and style. Actors will be judged on their individual growth and also on their ability to work as an ensemble member within the class. Playwrights may include: Hellman, Kushner, O'Neill, Churchill, Fomes, among other writers. Films may be shown as an example of technique. Class will meet for four hours a week.

Prerequisite: THR 250 Acting I: Process

350. Acting Classical Verse

This advanced acting class gives the students the tools needed to approach, rehearse, and perform classical text. The class begins with focus on scansion, breath work, imagery, vocal choices, heroic action, dramaturgy, and analysis of text, leading to advanced scene work. Primary focus will be on the works of Shakespeare, with possible additions of Marivaux, Behn, Racine, Moliere, and Middleton, among other writers. Films may be shown as an example of technique. Class will meet for four hours a week.

Prerequisite: THR 251 Acting II: Scene Study

351. Commedia Dell'Arte

This is an advanced acting class that explores comic performance from the classical French, Italian, and Spanish traditions. Scenes from the plays of Goldoni, Gozzi, Moliere, Marivaux, Beaumarchais and Cervantes will be analyzed and performed. In addition, the study of the stock Commedia Dell'Arte characters (Arlecchino, Pantalone, Brighella, Dottore, Capitano, etc.) will allow the actor to improvise with masks in order to expand vocal and physical abilities. Students in the class are required to write and perform contemporary scenes in the style of the Commedia, and elements of comedy will be researched through the viewing of current films and plays in order to trace the influence of this tradition on contemporary practice. A final performance will take place in a community venue.

Prerequisite: THR 251 Acting II: Scene Study

352. Experiments in Acting

This course, advanced in nature, will explore topics chosen by the instructor and may include focus on two or more aspects of the following: mask work, clowning, scene work from non-linear texts, spatial and sound awareness, ensemble and group work, agit-prop and overtly political theatre, the major avant-garde movements, and performance art and autobiographical theatre. Readings will be chosen from diverse plays and theoretical texts. Films may be shown as an example of exploration into style and text. The exact focus of the class will be explained prior to registration. Class will meet for four hours per week.

Prerequisite: THR 251 Acting II: Scene Study

450. Advanced Topics in Acting

This intensive laboratory course explores the ideas and techniques of one or more advanced approaches to performance. This studio class concentrates on topics such as: Advanced Problems in Acting/Emotional Techniques; Artists at the Reins: Imagining a Life in the Theatre; Acting in Film and Other Media; Acting

the Song; and Acting on the Edge: Beckett, Ionesco and others. Films may be shown as examples of techniques. Class will meet four hours per week.

Prerequisite: THR 251 Acting II: Scene Study

DIRECTING

370. Fundamentals of Directing

This class introduces the art form of theatre directing. Students learn key directorial concepts, focusing especially on issues of plot, character, space, and sound. A series of compact, supervised projects give students the opportunity to develop their abilities with these and other tools. In addition to teaching the basics of craft, the course presumes that directing is an expressive art form. Creativity, clarity, vulnerability, and personality will be considered hallmarks of good directing and valued highly. Subsidiary concerns of the class will include the history of directing, models of rehearsal, directorial text analysis, and contemporary directing theory. Meets four hours per week.

Prerequisite: THR 251 Acting II: Scene Study

371. Directing: Process in Production

This is an experiential course that explores the process of bringing the play text to the stage. Working as an ensemble of actors and directors, the class will confront the challenges of production conceptualization, text analysis, problems in physical staging, and collaborative process. Each student will participate as a director and actor in the mounting of several one-act plays in the course of the semester. Members of the class will also produce two production prompt books based on their work as directors. Meets four hours per week.

Prerequisite: THR 251 Acting II: Scene Study

372. Major Directors: Theory and Practice

This course explores the ideas and techniques of one or more major theatre directors. Though the class will touch upon the historical development of each artist, it concentrates on the conceptual and practical bases of their work. Students will read and write about these signal figures and create many new theatrical projects inspired by them. Extensive collaboration will be expected. The directors studied will change from semester to semester, but might include Edward Gordon Craig, Vsevolod Meyerhold, Bertolt Brecht, Arienne Mnouchkine, Augusto Boal, or Elizabeth LeCompte. Meets four hours per week.

Prerequisite: THR 251 Acting II: Scene Study or permission of the instructor

470. Advanced Topics in Directing

This studio course explores specialized ideas or techniques in theatre design. Possible topics might include: devised theatre; puppetry.

Prerequisite: A 300 level directing course or permission of the instructor.

DESIGN AND TECHNICAL THEATRE COURSES

160. Stagecraft: Techniques and Aesthetics

A basic introduction to the craft and art of the contemporary theatre technician and scenic/lighting designer. The semester will be divided into two parts – the first will cover techniques, tools, and materials used in the construction and painting of scenery, and the hang and focus of a lighting design. Other technical studies will include safety, stage rigging and knots, properties, and production organization. The second portion of the semester will cover a theatre designer's aesthetic choices, with topics including a history of Western stage architecture and machinery, an overview of stage design styles, and the design process as applied to stage design. A crew/laboratory requirement will complement class lectures.

Meets general academic requirement A.

161. Design for the Theatre

An introduction to 'total design' for the stage using a text-based approach to generate and test ideas as the core of creating a design. With the actors as the central focus of concentric rings of aesthetic choices, analysis would include a study in each successive circle: costume design – the fluid layer moving with the actor; stage properties – the objects the actor immediately uses; scenery – the contained world of the play;

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lighting design – the revelation of the physical world; and sound design – the most unconscious mood-maker onstage. The course will introduce the beginning stage designer to the creative process of making “art” onstage that is forged through a strong visual production concept.

Meets general academic requirement A.

162. Introduction to Stage Make-up

This course is an introduction to the basics of stage make-up; study includes historical and contemporary techniques in make-up and hair design and execution. Students will analyze the face and explore ways to manipulate and exaggerate the features with make-up and three-dimensional mediums. Projects include work with analyzing plays and characters to then create conceptual make-up charts that lead to realized designs. Study includes human physiognomy, theatrical make-up styles and rendering techniques. Crew work will be required.

163. Introduction to Sound Design

This course covers basic design theory and history, engineering, and technology for theatrical sound scoring and sound reinforcement. Classes include both lecture and hands-on labs in weekly three-hour sessions. Students write short plays that require sound designs, fabricate conceptual designs for short works, create a complete sound plot, engineer a series of audio projects, and work on lab projects and exercises. Students coming out of this class will be able to conceptualize, discuss, and research projects; record and create basic cues; and understand and operate simple sound systems.

164. Stage Management

0.5 course unit

An introduction to the craft and art of the theatre stage manager and the professional stage management process. The course will cover the theory and historical development of contemporary practice. Studies will require the acquisition of specific skills and knowledge including a vocabulary of theatre terminology, learning blocking notation, creating a production book, and using scheduling techniques. Students will learn how technical and design elements are coordinated, how to effectively work with directors, and to call and maintain shows. This course is designed to integrate theories and concepts with skills and techniques in order to meet the problem-solving and organizational challenges commonly encountered by stage managers in the creation of a show.

260. Scene Design I

An exploration of the relationship between the play and its physical setting. Students will explore how the cultural/literary context of specific theatrical works can be expressed through the designer’s process. A major focus will be on production conceptualization and the aesthetics of the theatre. Class members will be introduced to the basics of model building, color rendering practice, and the various media available to the modern designer. Crew work will be required. Offered in alternate years.

Prerequisite: THR 161 Design for the Theatre or permission of the instructor

Meets general academic requirement A.

261. Stage Lighting I

An exploration of the properties of light and their relation to the stage play in production. Areas to be covered include electrical theory, color theory, stage lighting design theory, and control systems. Students will develop an understanding of the potentials of the lighting instruments available to the designer and the uses of computer memory control. Crew work will be required. Offered in alternate years.

Prerequisite: THR 161 Design for the Theatre or permission of the instructor

Meets general academic requirement A.

262. Costume Design I

A survey of costume design and history with training in basic construction techniques. The application of basic design concepts and their relation to clothes, costume, and the human figure will be discussed and related to script analysis exercises. Students will work on designing, patterning, and planning costumes for

specific plays. Figure drawing and rendering technique will be covered, and crew work will be required. Offered in alternate years.

Prerequisite: THR 161 Design for the Theatre or permission of the instructor

Meets general academic requirement A.

360. Scene Design II

Advanced work in production conceptualization and a discussion of the design process in relation to the demands of period drama. Students will study the historical development of architecture and period décor. Students will work to hone drafting and rendering skills. Offered in alternate years.

Prerequisite: THR 260 Scene Design I

361. Stage Lighting II

Continuing study in the practice of lighting design for the stage with principal emphasis on aesthetics and interpretation and discussion of lighting as an art form and its effect upon other aspects of theatre. Drafting as it relates to the completion of lighting plots and the associated paperwork will be taught. Class projects as well as concentrated involvement in actual productions will be required. Offered in alternate years.

Prerequisite: THR 261 Stage Lighting I

362. Costume Design II

Continued study in the practice of costume design for the stage with principal emphasis on advanced work with period style and historical research. Practice with advanced techniques in patterning, draping, and cutting. Advanced work in designer communication techniques: creatively including figure drawing, rendering and swatching; organizationally including costume plots, budgeting and production books. Crew work will be required.

Prerequisite: THR 262 Costume Design I

460. Advanced Topics in Design

This studio course explores specialized ideas or techniques in theatre design. Possible topics might include: scene painting; moving lights technology.

Prerequisite: THR 161 Design for the Theatre or permission of the instructor.

ENSEMBLES AND INTERNSHIPS

900-959. Community Performance Ensemble

0.5 course units

Members of the Community Performance Ensembles in theatre and dance develop, rehearse and tour programs (plays, dance performances, interactive dramatic pieces) for presentation at schools, community centers, and senior citizen residences. In addition to participation in the touring ensemble, students will be expected to submit a journal about their experience in mounting the production and touring to diverse audiences. Audition required for participation. May be repeated.

960. Theatre Internship

An opportunity for students to serve internships with professional theatre companies. These internships will usually be in such areas as stage management, technical theatre areas, and theatre administration. Acting internships are usually not available. Internships are available both in Allentown and at theatres outside the Lehigh Valley. Pass-fail only.

970. Theatre Independent Study/Research

SPEECH (SPC)

240. Oral Interpretation

A course designed to develop skills in the oral performance of literature. Students will analyze selections of prose, poetry, and dramatic literature and work toward reading them aloud with maximum effectiveness.

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This course will meet for four hours weekly. Offered in alternate years.

Meets general academic requirement A.

250. Basic Speech

An introduction to the principles of public speaking. Concentration on the development of assurance and good platform presence through making frequent short speeches of simple expository or narrative types.

THEATRE ARTS SEMESTER IN LONDON (LTS)

Theatre Arts majors have the opportunity to spend a semester in London studying at Goldsmith's College, University of London. Students in the program are integrated into the Goldsmith's Department of Drama and complete courses with British students. The program includes weekly trips to a broad range of current London theatre productions, studio courses in acting styles, approaches to text, and literature studies in Elizabethan and Modern Drama.

200. London Theatre

This course involves weekly visits to the wide range of theatre available in the capital. Each visit is introduced and each production is discussed in seminars.

207. Shakespeare's Theatre

A seminar course exploring the range and development of Shakespeare's plays as dramatic works, in relation to the social, intellectual and theatrical context of his time.

220. Modernisms & Postmodernity

A seminar/research course critically examining and deconstructing notions of performance and cultural context. Fall semester.

221. Performance Theory and Practice

A seminar/research course considering the influence of theatre practitioners in relation to theatrical genres and contemporary models of theatre making.

222. Elements of Theatre History

A seminar/research course critically examining evidence of aspects of theatre history through a thematic, rather than chronological, approach. Fall semester.

301. Acting in London

This course examines, through practical workshops, different models of performance.

302. Scenographic Design

311. Modern & Contemporary Drama

A group of seminars concerned with a broad range of aspects of contemporary drama and theatre. They are as follows:

Afro-Caribbean Theatre in Britain (fall)
Women and Contemporary Theatre (spring)
Irish Theatre (spring)
Contemporary British Theatre (spring)
Modern British Comedy (spring)
Contemporary American Performance (fall)
Directors in Contemporary Theatre (fall)
Theatre and Politics of Transgressive Sexuality (spring)

313. Aspect of Greek Theatre

A seminar course examining historical evidence of performance conditions of the ancient Greek Theatre through the major genres of tragedy and comedy. Fall semester.

319. Theatre Technology

Supervised work within one of the specified areas for students with previous experience in scene design, costume design, or theatre technology.

WOMEN'S STUDIES (WST) (Minor only)

Director: Associate Professor Patrice DiQuinzio

Women's Studies is an interdisciplinary academic program that encourages students to examine the lives, perspectives, and work of women, as well as the connections among gender, race, class, sexual preference and orientation, religion, and ethnicity. Committed to the belief that students must claim rather than receive an education, Women's Studies courses incorporate participatory feminist pedagogy to explore women's pasts, present conditions, and future possibilities.

The Women's Studies minor can be combined with any major. Women's Studies is considered to be part of the division of humanities. In addition to the Women's Studies courses listed below, special topics courses are often available on a semester-by-semester basis. Students may also count toward the minor Women's Studies courses offered at other LVAIC schools. Women's Studies minors are encouraged to incorporate an internship or an independent study in fulfilling the minor requirements.

Minor Requirements

The minor consists of six courses:

WST 101 Introduction to Women's Studies

Five additional courses chosen in consultation with the director of Women's Studies.

101. Introduction to Women's Studies

Introduction to Women's Studies is both a women's studies course and a writing intensive course. It introduces students to basic issues, ideas, and approaches in women's studies and allows students to improve

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their ability to think critically and write analytically. Because of the interdisciplinary nature of women's studies, the course also emphasizes library research methods so that students learn to find and use sources and materials from a variety of academic disciplines. Basic issues, concepts, and approaches in women's studies are introduced by focusing on a specific topic, such as motherhood or women and paid work, and approaching that topic from a variety of perspectives. Throughout the semester, students work on a research paper whose topic is related to the course topic, approaching their specific topic from a variety of perspectives. The course includes interactive pedagogies such as small group work, so that students learn the interdisciplinary methods of women's studies by engaging in interdisciplinary research themselves and by considering the research and writing of other students.

Meets general academic requirement W.

320. Sex, Gender & Identity

An examination of the relationships among bodily sex, gender, personal and social identity including sexuality, social contexts, and the operations of power. The goal of the course is to understand and critically analyze the development of gender and sexuality in individuals, the persistence, pervasiveness, and social significance of gender differences, and the intersection of gender, sexuality, and power. Topics include the biological and evolutionary bases of sex and gender, and social psychological, sociological, psychoanalytic, and Foucauldian perspectives on sex, gender, and sexuality.

960. Women's Studies Internship

Supervised work and/or community service, arranged in consultation with the director of Women's Studies.

970. Women's Studies Independent Study/Research

In-depth reading and/or research on a topic in Women's Studies, arranged in consultation with the director of Women's Studies.

Other Women's Studies courses:

- ATH 250 Anthropology of Sex & Gender
- COM 374 or 375 Gender, Communication & Culture
- ECN 247 or 248 Economics of Men & Women at Work
- ENG 233 or 234 Women Writers
- ENG 267 or 268 Literature & Sexuality
- HST 114 Introduction to History: Women's Spanish Caribbean
- HST327 or 328 Women's America
- PHL 339 Feminist Philosophy
- PHL 381 Special Topics: Feminism & Political Philosophy
- PSC 284 Special Topics: Gender & Politics
- PSY 314 Psychology of Women
- REL 104 Male, Female & Religion
- REL 350-359 Topics in Gender & Religion
- SOC 105 The Family
- SOC 335 Inequality & Power
- THR 301 or 302 Theories of the Theatre: Feminist Theories

Interdisciplinary Concentrations



INTERDISCIPLINARY CONCENTRATIONS (MAJORS/MINORS NOT AVAILABLE):

While the concentrations listed below do not lead to a major or a minor and are not listed on the transcript, they suggest ways students may elect clusters of courses of special interest to them. Students may wish to complete these courses either as electives or to partially fulfill general academic requirements. Some of the courses listed have prerequisites, specified in the course description. In addition, special topics courses or seminars are available on a semester-by-semester basis. Students are encouraged to combine courses in concentrations of interest other than those listed below.

Latin American Studies

Suggested courses:

- SPN 322 or 323 Civilization of Latin America
- SPN 415 Spanish American Literature I
- SPN 416 Spanish American Literature II
- SPN 417 Contemporary Spanish American Novel
- HST 291 or 292 Colonial Latin America
- HST 293 or 294 Modern Latin America
- SOC 224 American Ethnic Diversity
- PSC 244, 245 Governments & Politics of Latin America
- PSC 246, 247 Developing Nations: Societies in Transition

African American Studies

Suggested courses:

ENG 358 or 359 African American Literature
HST 363 or 364 African American History
MUS 228 History of Jazz
SOC 224 American Ethnic Diversity
PSC 237 or 238 Governments & Politics of Africa
PSC 246 or 247 Developing Nations: Societies in Transition
PSC 248 or 249 Governments & Politics of the Middle East
PSC 325 or 326 Civil Rights & Liberties

Non-Science Medical

Suggested courses:

ECN 243 or 244 Health Care Economics
HST 345 or 346 Disease & Medicine in American History
PHL 241 Biomedical Ethics

DANA ASSOCIATES (DNA)

Director: Assistant Professor Mohsin Hashim

The Dana Program emphasizes creativity and independence of thought through independent study. After completing the Dana First-Year seminar, Dana students complete 3.0 course units. It is recommended that Dana Scholars complete 1.0 unit of Dana Directed Studies, a Dana Internship for 1.0 unit, and the Dana Forum for 1.0 unit. Although students may substitute between Dana Directed Studies and Dana Internships, and so choose to complete 2.0 units of mentorship or 2.0 units of internship, all Dana students must complete the Dana Forum.

Dana Program participants may major in any field of study offered at Muhlenberg. At the discretion of the major department, certain components of the program may be applied toward major requirements.

Students who successfully complete the Dana Associates Program are honored by receiving the designation “Dana Scholar” on their diploma and transcript.

100-199. Dana First-Year Seminar **1.0 course unit**

955. Dana Forum **1.0 course unit**

The Dana Forum is a directed independent study with a common theme. Dana seniors, in teams of two or three, will research with chosen faculty mentors a topic closely related to the College’s Center for Ethic’s theme for the academic year. That research will culminate in an open presentation to the College community.

960. Dana Associates Internship **1.0 course unit**

975. Dana Associates Directed Studies

0.5 or 1.0 course units

Students will develop their Dana Associates Directed Study with a faculty member of their choice. Students are encouraged to develop projects that emphasize creativity or original thought, rather than producing summaries of previous work. Dana Associates Directed Studies can take any form as long as it is agreeable to the student and the mentoring faculty member. The Study may culminate in a paper, performance, presentation, or any other final product deemed appropriate. Open only to Dana Associates.

MUHLENBERG SCHOLARS PROGRAM (MBS)

Director: Professor Theodore W. Schick, Jr.

The Muhlenberg Scholars Program is a course of study designed to enhance the education of talented students by providing unique opportunities for intellectual exploration, growth and development.

Students who successfully complete the Scholars Program receive a special certificate at graduation as well as the designation “Muhlenberg Scholar” on their diploma and transcript. To be eligible for this distinguished honor, a student must have an overall grade point average of at least 3.500 and have achieved at least a 3.250 grade point average in the following honors courses:

- Scholars First-Year Seminar
- Scholars course in the Humanities
- Scholars course in the Social Sciences
- Scholars course in the Natural Sciences
- Senior Scholars Capstone Seminar
- Senior Scholars Project

Scholars courses are small, interdisciplinary, discussion-oriented courses in which the student is encouraged to grapple creatively with problems at the forefront of current research. The emphasis is on original source materials rather than textbooks. The goal is to create a community of inquiry where professor and student reason together about topics of current interest.

RJ FELLOWS PROGRAM

The RJ Fellows Program prepares students who have exhibited particular intellectual and personal passion and aptitude for exploration of change in the world, including the nature of, adaption to, and engagement with such change. The program will have three areas of study centering around: (1) the definition of models of change; (2) the examination, analysis and interpretation of principal moments of change within history; and (3) the development of analysis and strategies to face contemporary and future changes.

Self-Directed Inquiry Program / Semester in Washington, D.C. /

The program includes the following courses:

- RJ Fellows First-Year Seminar
- RJ Fellows Designated Courses in Humanities, Natural Sciences, Social Sciences
- RJ Fellows Symposium
- Participation in RJ Fellows Senior Signature Interdisciplinary Course

SELF-DIRECTED INQUIRY PROGRAM (SDIP)

Director: Professor James Bloom

The Self-Directed Inquiry Program (SDIP) meets the needs of exceptionally independent students who find their curiosity limited by the traditional curriculum and their intellectual aspirations constrained by College graduation requirements and by the regimen in conventional major programs. In order to qualify for the program, first-year students must demonstrate initiative and perseverance as learners and inquirers. Students interested in SDIP should first discuss their suitability with their advisors and then, during the spring term of their first year, contact the program's director about the application procedure which includes an essay detailing the student's intellectual interests and learning goals and an interview with members of the SDIP committee.

SEMESTER IN WASHINGTON, D.C. (WSH)

Campus Coordinator: Professor Alton J. Slane

Muhlenberg offers a semester program in Washington, D.C., through the Lutheran College Washington Consortium. The program is open to students from a variety of academic disciplines and includes seminars and a wide range of internships. Open to juniors and seniors. Fall and spring terms. Internship only during the summer session.

950. Special Topics for the Washington Semester

The course will vary considerably from semester to semester and will utilize the variety of interests and specialties of the consortium faculties. The topic for the semester will be announced in advance. Visits to offices and agencies will be included, as will meetings with officials and experts in Washington.

960. Washington Semester Internship

2 course units

Each student will serve 25 to 30 hours each week in an internship in an office or agency in Washington, usually in a field related to the student's major. A formal written report will be submitted to the Muhlenberg supervising faculty member at the conclusion of the internship. Pass-fail only.

Pre-Professional Programs



HEALTH PROFESSIONS PROGRAM

Advisor: Ms. Lori Provost

All students who have definite or potential interest in a career in the health professions should register and consult with the Health Professions Office, as early as possible during the fall semester of their first year.

The Health Professions Office is responsible for counseling all Muhlenberg students who are interested in careers in the health professions, including those interested in becoming physician assistants, nurse practitioners and physical and occupational therapists. In the majority of cases, pre-health students are not required to belong to any special program and it is not necessary for them to major in science. Many students choose to double major, adding humanities or social science to their concentration in the natural sciences. Majors are chosen after a careful assessment of the student's interests and talents.

Admissions requirements differ somewhat according to the type of health professions school and occasionally change. Presently, the following schedule satisfies the basic admission requirements for American schools of chiropractic, dentistry, medicine, optometry, podiatry and veterinary medicine:

One year each of: biology, general chemistry, organic chemistry, physics (all with labs) and English. (Some schools recommend a year of calculus, but do not require it.) Because of the importance of maintaining the integrity and continuity of committee evaluations of our applicants to health professions schools, we strongly recommend that our students take all of the above-named courses at Muhlenberg. Any request for an exception to this policy must be presented for prior approval, in writing, to the department concerned for a final decision.

Often individual schools in the allied health fields have additional requirements. It is important for students to make certain early in their careers that they will take the appropriate courses to satisfy all of the admission requirements of a particular school in which they are interested.

PRELAW PROGRAM

Advisors: Lynda Garow Grossman, Director, Career Development & Placement
Professor Alton J. Slane, Political Science

This interdisciplinary program of study, although not a major program as such, is especially designed to attain the goals prescribed by the American Association of Law Schools for prelegal preparation: (a) to provide the student with basic information about economic, political and social institutions and values; (b) to cultivate an appreciation of historical documentation and analysis; (c) to develop requisite skills in the use of the English language, oral as well as written; (d) to develop an ability to think creatively and critically and use systematic reasoning—deductive, inductive and by analogy.

The courses listed within the departmentalized areas are all within the guidelines provided by the American Association of Law Schools for prelegal preparation and are strongly recommended for all prelaw students who elect to participate in the prelaw program. It should be noted that this program partially fulfills the College's general academic requirements both in the social sciences and the humanities.

Course Selection:

- A. *Economics and Business*
 - ECN 101 Principles of Macroeconomics
 - ACT 101 Financial Accounting
- B. *English and Drama and Speech*
 - ENG 203 Nonfiction Writing
 - SPC 250 Basic Speech
- C. *History*
 - HST 223 or 224 Revolutionary America
 - HST 225 or 226 Nineteenth Century America
 - HST 227 or 228 Twentieth Century America I – 1900-1945
 - HST 233 or 234 American Cultural and Intellectual History Since 1900
 - HST 323 or 324 Constitutional History of the United States
- D. *Philosophy*
 - PHL 110 Critical Thinking **OR**
 - PHL 111 Formal Logic
 - PHL 333 Ethics **OR**
 - PHL 242 Law and Morality **OR**
 - PHL 245 Business Ethics

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- E. *Political Science*
 - PSC 101 American National Government
 - PSC 351 or 352 Early Western Political Thought **OR**
 - PSC 353 or 354 Modern Western Political Thought
 - PSC 321 or 322 Constitutional Law I
 - PSC 323 or 324 Constitutional Law II
 - PSC 325 or 326 Civil Rights and Liberties
- F. *Psychology*
 - PSY 101 Introductory Psychology
- G. *Sociology*
 - SOC 101 Introduction to Sociology
- H. Two courses in literature as offered by the English or the Languages, Literatures and Cultures departments.

All students, regardless of major, who elect to participate in the prelaw program or who seek advice and direction regarding prelaw studies, or need advice before applying to law school, should register with Lynda Garow Grossman in Career Development.

RELIGIOUS VOCATION PREPARATION

Advising: Office of the Chaplain

Students considering seminary, graduate theological study, or work in a religious tradition are encouraged to design programs which emphasize history, philosophy, English, classical languages and religion. A major and a minor in religion are available at Muhlenberg as well as courses in modern Hebrew. Students should consult with the advisor about program requirements, denominational procedures for persons preparing for ministries, and the selection of undergraduate courses.

Students are encouraged to become involved in religious organizations and activities both on and off campus. Study groups on the Bible, Sacred texts, social issues, personal development, and ecumenical and interfaith relations are available on campus. Also available are many community service opportunities such as tutoring children, visiting the elderly, helping to construct homes and delivering food to the hungry.

The Muhlenberg Community

(As of September 1, 2005)



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Ph.D., University of Pennsylvania.

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Associate Professor of Philosophy
B.A., M.A., Ph.D., University of Illinois.

Carol Shiner Wilson (1981)
Dean of the College for Academic Life
Assistant Professor of Humanities
B.A., Cornell College;
M.A., University of Missouri;
Certificat, Université de Paris;
M.A., University of Kansas;
Ph.D., Indiana University.

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Associate Professor of Anthropology
B.S., Widener University;
M.A., Temple University;
Ph.D., State University of New York at
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Anna Adams (1982)
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Ph.D., Temple University.

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M.Phil., University College Dublin.

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Ph.D., University of Colorado.

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Director of Self-Directed Inquiry Program
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M.A., East Stroudsburg University;
Ph.D., State University of New York at
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Robert M. Croskey (1984)

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Jadviga da Costa Nunes (1984)

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Lindback Award for Distinguished Teaching,
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Director of Environmental Studies Minor
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Director of the Muhlenberg College Theatre
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Assistant Professor of Theatre Arts
Baccalaureat Philosophie, Académie d'Aix en Provence;
Diplôme Universitaire d'Etudes Littéraires;
Licencie Es Lettres, La Sorbonne.

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Charles E. Russell (1988)

Associate Professor of Chemistry
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Elyn K. Rykken (1999)

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Assistant Professor of Theatre Arts
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Professor of Philosophy
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Ludwig F. Schlecht (1969)

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Associate Professor of Religion
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Associate Professor of Psychology
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Scott Sherk (1985)

Head of Department

Professor of Art

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Donald W. Shive (1969)

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Lecturer in Music (Voice)

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B.S., U.S. Military Academy;
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Physics Lab Manager/Lab Instructor
B.S., M.S., University of Pittsburgh.

Jacqueline A. Jones

Major and Planned Gift Officer
B.A., Assumption College;
M.Ed., Northeastern University.

Mary Beth Kallen

Learning Specialist
B.A., University of Pittsburgh;
M.Ed., Lehigh University.

Anita Kelly

Director, Counseling Services
B.A., DeSales University;
M.A., Kutztown University.

Tracy R. Kichline

Director of Technology Management, Development & Alumni Relations
B.S., University of NE at Kearney.

Leslie Kiernan

Head Women's Soccer Coach
B.S.E., State University of New York at Cortland;
M.Ed., East Stroudsburg University.

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Assistant Vice President for Corporate and Foundation and Government Relations
A.B., Lycoming College;
M.Ed., Kutztown University.

Jeffrey T. Knarr

Assistant Football Coach
Assistant Intramural Director
B.S., East Stroudsburg University.

Diane Koch

Special Collections Librarian
B.S., M.A., M.L.S., University of Maryland.

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Director, Human Resource Management Program, The Wescoe School of Muhlenberg College
Advisor/Recruiter, The Wescoe School of Muhlenberg College
B.A., Bowling Green State University;
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Director, Business Administration Program, The Wescoe School of Muhlenberg College
B.A., Moravian College;
M.S., University of Pennsylvania.

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Director of Community Service
B.A., Texas A&M University.

Marjorie Lauer

Administrative Manager, Lee and Virginia Graver Arboretum
A.B., Bryn Mawr College.

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Elizabeth M. Lees
Director of Purchasing
B.B.A., Muhlenberg College.

Welles Lobb
Assistant Cross Country Coach
Assistant Track Coach
A.B., Mansfield University.

Penelope Lochner
Serials Librarian
B.A., University of Pittsburgh;
M.L.S., Rutgers University.

Roger H. Loos
Technical Support Specialist

Jillian Lowrey
Director, College Communication
A.B., Muhlenberg College.

Kenneth S. Lupole
Director of Campus Safety and Security
A.A., Monroe Community College.

Robert Macaluso
Head Baseball Coach
Assistant Intramural Director
B.S., M.Ed., Springfield College.

Beverly A. MacEwan
Assistant Director, Student Activities
A.B., Muhlenberg College.

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Head Coach, Men's Basketball
Aquatic Director
B.A. Concord College;
M.A., West Chester University.

Robert C. Mahar
Network Manager
B.S., Kutztown University.

Stephen Maliniak
Student Help Desk Supervisor

Rudi McCauley
User Support Manager
A.A., Allentown Business School.

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Major/Planned Gift Officer
A.B., Muhlenberg College.

Jennifer R. McLarin
Associate Director of Admission
A.B., Muhlenberg College.

Ronald J. McMullen
Maintenance Supervisor

Audra Merritt
Costume Shop Manager
B.F.A., University of South Dakota.

Robert Merritt, Jr.
Major/Planned Gift Officer
B.S., Messiah College.

Harry E. Miller
Director of the Office of Information
Technology

Patricia Mittleman
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Hillel Director
B.A., Temple University

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Aid/Director of Financial Aid
B.A., Franklin and Marshall College.

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B.S., Muhlenberg College

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Stephen R. Nemes, Jr.
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B.S., West Chester University.

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A.B., Washington University;
M.Ed., The University of Missouri—
Columbia.

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B.F.A., Pratt Institute of Art and Design.

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B.S., B.A., B.A., John Brown University;
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M.S. I.S., DeSales University.

Anita Regan

Programmer Analyst
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M.B.A., Kutztown University.

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Assistant Director of The Muhlenberg Fund
Director of the Phonathon
B.A., Lehigh University.

Michael Richardson

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Director of Development, Marketing and Special Projects, Theater Arts Department
B.S., Shippensburg University;
M.Ed., Michigan State University.

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Head Coach, Women's Golf and Women's Basketball
B.A., Fordham University.

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Director, Environmental Educational Outreach
B.S., Michigan State University;
M.Ed., Grand Valley State University.

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Technical Coordinator, Department of Theatre & Dance

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Assistant Registrar

Kimberly A. Scheese

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Assistant Equipment Room Manager
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B.S., Muhlenberg College.

Jane Schubert

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Judicial Officer
A.B., Muhlenberg College.*

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*Director of Residential Services
B.A., M.Ed., Kutztown University.*

Thomas J. Sciarrino

*Media Technician
B.S., Kutztown University.*

Gregg Scully

*Academic Advisor/Recruiter, The Wescoe
School of Muhlenberg College
B.A., Cedar Crest College.*

Kristen Stuckel Seiler

*Head Women's Lacrosse Coach
B.A., Gettysburg College;
M.S., Western Maryland College.*

Lauren M. Shanahan

*Director of Alumni Relations
A.B., Muhlenberg College.*

Joseph F. Shigo

*Communications Specialist
A.S., Pennsylvania State University.*

Doyle Smith

*Operations Manager
A.S., Northampton County Community
College.*

Anne W. Speck

*Vice President, Human Resources
B.S., Rider College;
M.B.A., Lehigh University.*

Martha Stevenson

*Head, Public Services, Science Reference
Librarian
B.S., University of Tennessee, Martin;
M.L.S., University of Tennessee, Knoxville.*

Joseph Swanson

*WMUH Station Manager
Mid-Western Broadcasting School.*

Deborah Tante-Horan

*Registrar
B.A., North Park University.*

Marcia A. Teeno

*Applications Programmer
B.A., Immaculata College.*

Paul E. Theisen, Jr.

*Theatre Technician
B.A., Viterbo College;
M.F.A., University of Delaware.*

Sean C. Topping

*Head Coach, Men's Soccer
A.B., Muhlenberg College.*

Jennifer Warmack-Chipman

*Senior Women's Administrator/Assistant
Director of Athletics
Head Volleyball Coach
B.A., University of Texas.*

Jeanne Sharp Wells

*Director of Donor Relations
B.A. Whitman College.*

Lindsay A. Weiss

*Assistant Athletic Trainer
B.S., Pennsylvania State University.*

Diane Weslosky

User Support Specialist

Stephen Williams

*College Organist
Director, Chapel Choir
Director, Bell Choir
B.A., Brevard College.*

Carol Shiner Wilson

*Dean of the College for Academic Life
Assistant Professor of Humanities
B.A., Cornell College;
M.A., University of Missouri;
Certificat, Université de Paris;
M.A., University of Kansas;
Ph.D., Indiana University.*

Rick Yenser

*Assistant Director, Counseling
B.S., M.A., Kutztown University.*

EMERITI

Arthur R. Taylor (1992)

Past President

B.A., M.A., Brown University.

Edwin R. Baldrige (1957)

Professor of History, Emeritus

A.B., Dartmouth College;

M.A., Ph.D., Lehigh University.

Charles S. Bednar (1962)

Professor of Political Science, Emeritus

B.A., M.A., Rutgers University;

Ph.D., Columbia University.

Robert A. Boyer (1941)

Professor of Physics, Emeritus

A.B., Susquehanna University;

M.A., Syracuse University;

Ph.D., Lehigh University;

D.Sc., Muhlenberg College.

Patricia T. Bradt (1994)

*Associate Professor of Environmental Science,
Emerita*

B.A., Cornell University;

M.S., Ph.D., Lehigh University.

John W. Brunner (1955)

Professor of German, Emeritus

A.B., Ursinus College;

M.A., Ph.D., Columbia University.

Minotte Chatfield (1953)

Professor of English, Emeritus

A.B., Yale University;

M.A., Ph.D., Lehigh University.

Alfred J. Colarusso (1960)

Professor of Art, Emeritus

B.S., Kutztown State Teachers College;

M.A., Columbia University;

M.F.A., University of Iowa;

Diploma, Academy of Fine Arts, Florence.

Roland W. Dedekind, Jr. (1959)

Assistant Professor of Mathematics, Emeritus

B.S., Ursinus College;

M.S., University of Wisconsin;

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Joseph A. Francello (1968)

*Professor of Sociology and Anthropology,
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B.A., M.A., State University of New York
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Professor of English, Emeritus

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Ph.D., University of Pennsylvania.

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Professor of Psychology, Emeritus

B.A., University of Pennsylvania;

Ph.D., Stanford University.

Carol V. Grener (1968)

Professor of French, Emerita

B.Sc., Ohio State University;

M.A., University of California, Berkeley;

Ph.D., University of Chicago.

Jay H. Hartman (1967)

Professor of English, Emeritus

B.A., Dickinson College;

M.A., Tulane University;

Ph.D., Lehigh University.

Richard C. Hatch (1962)

Professor of Chemistry, Emeritus

Sc.B., Brown University;

Ph.D., University of New Hampshire.

William H. Jennings (1969)

Professor of Religion, Emeritus

B.A., Lenoir Rhyne College;

B.D., Lutheran Southern Seminary;

M.A., Ph.D., Yale University.

Eileen Kern

Registrar, Emerita

Adnah G. Kostenbauder (1962)

Professor of Mathematics, Emeritus

A.B., University of Rochester;

M.A., Ph.D., Syracuse University.

Connie Kunda (1966)

Professor of Physical Education, Emerita

B.S., Pennsylvania State University;

M.Ed., East Stroudsburg State College.

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Stewart S. Lee (1963)

Professor of Political Science, Emeritus

B.A., Westminster College (Pa.);

M.A., Ph.D., Rutgers University.

Walter E. Loy, Jr. (1960)

Professor of Physics, Emeritus

B.S., Muhlenberg College;

M.S., Drexel Institute of Technology;

Ph.D., Temple University.

Frank P. Marino (1967)

Professor of Physical Education, Emeritus

B.S., Brockport State Teachers College;

M.S., Pennsylvania State University.

Charles S. McClain (1970)

Professor of Music, Emeritus

B.A., College of Wooster;

M.A., Cornell University;

A.M.D., Eastman School of Music.

Frank J. McVeigh (1966)

Professor of Sociology, Emeritus

B.S., LaSalle College;

M.S., Loyola University;

M.S.W., Marywood College;

Ph.D., St. John's University.

John S. Meyer (1988)

Professor of Mathematical Sciences, Emeritus

B.A., Wartburg College;

M.S., Northwestern University;

Ph.D., Iowa State University.

Joanne Stafford Mortimer (1957)

Professor of History, Emerita

A.B., Dickinson College;

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Kenneth T. Moyer (1960)

Professor of Physical Education, Emeritus

B.S., East Stroudsburg State Teachers

College;

M.A., Lehigh University.

Carl S. Oplinger (1963)

Professor of Biology

B.S., Muhlenberg College;

M.S., Lehigh University;

Ph.D., Cornell University.

John T. Pearce (1970)

Associate Professor of French and Spanish,

Emeritus

B.A., M.A., University of Michigan;

Ph.D., University of Chicago.

Henry L. Schmidt (1968)

Professor of Music, Emeritus

B.A., University of Rochester;

M.A., Eastman School of Music;

Ph.D., University of North Carolina.

Irvin R. Schmoyer (1976)

Professor of Biology, Emeritus

B.S., Muhlenberg College;

M.S., Ph.D., Purdue University.

Franklin Sherman (1989)

Professor of Jewish-Christian Studies, Emeritus

A.B., Muhlenberg College;

M.Div., Lutheran School of Theology at

Chicago;

M.A. (Oxen), Oxford University;

Ph.D., University of Chicago.

Rohini S. Sinha (1965)

Senior Professor of Economics, Emeritus

I.Sc., Bihar University;

B.A., Patna University;

M.A., Ph.D., New School for Social

Research.

G. N. Russell Smart (1947)

Professor of Chemistry, Emeritus

B.Sc., Ph.D., McGill University.

David N. Stehly (1960)

Professor of Chemistry, Emeritus

B.S., Moravian College;

M.S., Ph.D., Lehigh University.

Indrikis Sterns (1968)

Professor of History, Emeritus

B.A., M.A., Ph.D., University of

Pennsylvania.

Robert K. Stump (1959)

Assistant Professor of Mathematics, Emeritus

B.S., Muhlenberg College;

M.S., Rutgers University.

Robert B. Thornburg (1962)

Professor of Humanities, Emeritus

A.B., Gettysburg College;

A.M., Ph.D., University of Pennsylvania.

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Katherine S. Van Eerde (1961)

Professor of History, Emerita

B.A., College of Wooster;
M.A., Ph.D., Yale University;
L.H.D., Muhlenberg College.

Nelvin L. Vos (1965)

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B.A., Calvin College;
M.A., Ph.D., University of Chicago.

Robert J. Wagner (1961)

Assistant Professor of Mathematics, Emeritus

B.S., Lebanon Valley College;
M.S., Rutgers University.

Kenneth W. Webb (1946)

Professor of Romance Languages, Emeritus

A.B., Ph.D., University of Pittsburgh.

Adolph H. Wegener (1956)

Professor of German, Emeritus

A.B., Muhlenberg College;
A.M., Ph.D., University of Pennsylvania.

John C. Weston (1967)

Professor of Biology, Emeritus

B.A., Bowdoin College;
M.S., Ph.D., University of Pennsylvania.

Robert Wind (1975)

Professor of Classics, Emeritus

B.A., Wesleyan University;
M.A., University of Wisconsin;
Ph.D., State University of Iowa.

Arvids Ziedonis, Jr. (1962)

Professor of Comparative Literature, Emeritus

A.B., Muhlenberg College;
M.Div., Lutheran Theological Seminary at
Philadelphia;
S.T.M., Lutheran Theological Seminary,
Gettysburg;
Ph.D., Temple University.

Audrey Fernald, B.S., R.N.

Staff Nurse

Associate, Gwynedd Mercy Hospital;
B.S., University of St. Francis

Robin Christman, R.N.

Staff Nurse

Diploma, Allentown Hospital S.O.N.

Kelly Powell, R.N.

Staff Nurse

Diploma, Allentown Hospital S.O.N.

Deborah Varney, R.N.

Nurse/Administrative Assistant

St. Luke's Hospital S.O.N.

HEALTH SERVICE STAFF

Brynnmarie Dorsey, M.S.N., R.N.

Director, Health Center

B.S.N., Villanova University;
M.S.N., Duke University

Buildings and Facilities



Located in the residential west end of Allentown, Muhlenberg's 81-acre campus provides an attractive setting with more than 40 buildings. The campus is adjacent to Allentown's extensive city park system and includes the following facilities:

The Harry C. Trexler Library houses the College's primary collection of information resources including books, journals, both print and electronic, videos, recordings, government documents, and electronic databases. The collection of approximately 225,000 volumes, 273,000 U.S. government documents, 14,000 audio visual items (including 6,000 video titles) and 2,000 print journal subscriptions with online access to over 13,000 electronic journals, meets the general instruction and research needs of undergraduate students. In addition to the on-site collections, students and faculty have access to the collections of five other Lehigh Valley independent colleges, with combined holdings of more than 1.75 million volumes, as well as to libraries world-wide. The OCLC-based interlibrary loan system makes available tens of millions of books and journal articles free or at low cost. Trexler Library's membership to the Pennsylvania Academic Library Consortium, Inc. (PALCI) provides students and faculty direct borrowing privileges to over forty academic and research libraries within the Commonwealth and the surrounding area.

Automated with an integrated library system since 1995, the Library's online catalog provides users with a single access point to search for books, journal articles, documents, audio-visual items and offers gateway access to more than 90 Web-based remote databases. More than 40 CD-ROM databases provide specialized searching tools in disciplines taught at Muhlenberg.

Built in 1988, Trexler Library offers a modern and gracious facility combined with varieties of seating and study space to meet the needs of individual and group work. Also included in the building are a Curriculum Laboratory serving the Education Department, a peer tutorial room, two PC Labs, the Writing Center, the Polling Center,

two classrooms (one designed as an AV viewing room), and a library classroom used for instruction in research techniques. The Library is open 108 hours per week with additional hours provided during exam periods. Automated reserve services make available course-related readings. A program of course-integrated instruction pairs librarians with instructors to combine information-gathering and evaluating skills into the curriculum with the goal of making Muhlenberg students information literate.

The Gideon F. Egner Memorial Chapel, constructed in 1930, is widely regarded as one of the finest examples of Gothic revival style in the nation. Its stained glass windows and vaulted interior provide appropriate settings for worship, meditation, concerts and academic convocations. The 48-rank, 2,600 pipe Holtkamp organ is used in worship, teaching and musical performances.

The Dorothy and Dexter Baker Center for the Arts was completed in 1976. Dramatic in concept and highly functional, the Center was created for Muhlenberg by Philip Johnson, one of the world's most renowned architects. Focal point of its design and function is a 220-foot, glass-covered galleria which bisects the structure. The galleria serves as a thoroughfare, gathering place, and as a unique site for displaying the arts—inviting students to visit an exhibition, attend a concert, and participate in drawing, painting, sculpture, dance, or the performing arts. The main level contains the theatre/auditorium complex, the lecture/recital hall, galleries, class and seminar rooms, the Art Department office and slide library, and studios for drawing, painting, and sculpture. The upper level contains the Music and English Departments, faculty offices, music studios, the music and theatre rehearsal rooms and the music listening room, with the department's collection of recordings and scores.

Included in the musical facilities are Steinway grand pianos for performance and teaching, a Schlicker practice organ as well as numerous practice studios with pianos. The Electronic Music Studio includes sophisticated analog and digital synthesizers and recording equipment.

The striking **Trexler Pavilion for Theatre and Dance**, was completed in December, 1999, and houses the Department of Theatre and Dance. Architectural features of this contemporary structure include a curved glass wall which encompasses lobbies on two levels and a pedestrian bridge which connects to the Baker Center for the Arts. The building includes three performance spaces: a 365-seat proscenium theatre with balcony, an experimental theatre, and a dance studio theatre. Other building spaces include a costume shop and dressing rooms, rehearsal rooms, a scenery shop, and departmental offices.

The Haas College Center, formerly the Haas Library, is a campus and community landmark building and was renovated in 1989-90. It houses administrative offices including admissions, alumni and academic records, President's, Provost's and Deans' offices, as well as student life, business, human resources, and development offices. The Center contains public spaces including a tiered conference room, several meeting rooms and a spacious lobby which is used for ceremonial occasions.

The J. Conrad and Hazel J. Seegers Union, first constructed in 1963, serves as a center for social and recreational life at the College. It contains two separate dining facilities and flexible meeting/conference spaces. The lower level houses The Red Door Café, the bookstore, Career Development and Placement, Academic Support Services, and Student Activities offices.

The John V. Shankweiler Biology Building was built in 1970 and contains classrooms, recitation and seminar rooms, a greenhouse, an isolation room to grow and study viruses, and eight laboratories—complete with environmental controls, power supplies and safety devices, five constant temperature rooms, two advanced study labs, a herbarium workroom, electron microscope rooms and faculty research laboratory/offices. Its museum connects with the Trumbower Science Building.

Equipment in the laboratories includes a six-channel physiograph, oscilloscopes, an auto recording spectrophotometer, a fluorescent microscope, an inverted microscope, a micromanipulator for surgery under a microscope, several microcomputers, terminals and printers, and tissue culture facilities. The department has both a transmission and a scanning electron microscope and offers courses in these areas.

The George T. Ettinger Building, renovated during 1990-91, is an academic facility which houses foreign languages, sociology and anthropology, political science, economics, business and accounting, and history departments. The four-floor structure also houses the Walter and Margaret Berger Learning Center, the Office of Information Technologies, Media Services, computer laboratories, a state-of-the-art foreign language laboratory, the Price-Waterhouse accounting classroom, and other instructional spaces.

Forrest G. Moyer Hall, a four-story academic building, was completed in April, 2000. Named for alumnus Forrest G. Moyer, M.D., the building houses psychology, education, philosophy, and religion. Included are psychology laboratories, departmental reading rooms, and faculty offices within a two-story atrium. Also located in this facility are the Center for Ethics and Leadership and the Institute for Jewish-Christian Understanding. The main level includes a large forum space used for lectures, conferences, and other special events.

The John Peter Gabriel House was built in 1905 as the President's house. It now contains the Wescoe School of Muhlenberg College.

Walson Hall, formerly the Old Commons Building, was built in 1912 and renovated in 2001. It houses WMUH Radio and the Department of Communication. In addition to faculty offices, it contains a television studio, post production facilities and digital laboratories.

The Life Sports Center is designed for athletic, recreational, and intramural activities. A new 40,000 square foot addition overlooking Scotty Wood Stadium houses a large co-ed weight room, a large cardio-fitness facility, an athletic training suite, coaches' offices, and locker rooms. The new facility also houses student health services and counseling services. Also in the complex are a tournament-size basketball court with

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bleacher seating for 3,500; a 32,000 square foot field house with an indoor track, tennis, and other activities; a six-lane 25 meter swimming pool; racquetball and squash courts; a wrestling room; and a Pilates Center.

An artificial turf field for football, lacrosse, and field hockey and an 8-lane all-weather track are adjacent to the Center. Six new all-weather tennis courts and a soccer field are also located on campus.

The Conrad W. Raker Biological Field Station and Wildlife Sanctuary, a 40-acre wooded tract situated 15 miles north of the campus, is used by biology classes for field study. A section of Jordan Creek within the preserve provides added opportunity for aquatic biology studies. Students and staff also conduct research on varied aspects of plant and animal biology.

The Peter S. Trumbower Science Building houses the Departments of Chemistry, Physics and Mathematical Sciences. In addition to state-of-the-art laboratories, lecture halls and classrooms, the building contains special student and faculty research facilities. Originally built in 1927, it has undergone frequent modernizing and renovation.

Kathryn P. Taylor Residence Hall, constructed in 1996, houses 113 students, a student lounge, a computer laboratory, and three classrooms equipped with state-of-the-art teaching technologies. Residence Hall rooms all contain private bathrooms and are air-conditioned.

Robertson Residence Hall and South Residence Hall, completed in December, 2001, houses 140 students in 35 suites, each containing four single rooms. Each suite contains a small kitchen, living room, and bathroom. The four-story brick structures overlook attractive city parks. The buildings include student social spaces and laundry facilities.

The Hoffman House, renovated in 1997, is host to meetings and other events for Muhlenberg faculty, staff, and guests. The facility includes an all-purpose room, several lounges, a seminar room, a kitchen, and three guest rooms.

The Lee and Virginia Graver Arboretum, a 64-acre tract located 20 miles northeast of campus, offers a diverse array of field research and other educational opportunities for Muhlenberg students. Its natural wooded area consists of Pennsylvania native plant species, a wild flower habitat with over 300 species, more than 3,000 rhododendrons, hundreds of azaleas and other broadleaf evergreens and an unusual collection of conifer tree species. It includes an environmental research laboratory and facilities for offices and meeting space.

Academic Calendar

FALL SEMESTER 2005

Orientation		Friday, August 26
	through	Sunday, August 28
Opening Convocation	7 P.M.	Sunday, August 28
Classes Begin		Monday, August 29
Last Day for Course Changes and Declaring Pass-Fail Courses		Wednesday, September 7
Homecoming		Friday, October 7
	through	Sunday, October 9
Fall Recess Begins at the Conclusion of Classes		Wednesday, October 12
Regular Schedule Resumes	8 A.M.	Monday, October 17
(Includes Yom Kippur)		
Second Quarter PE Begins		Monday, October 17
Deadline: Mid-Semester Grades	4 P.M.	Wednesday, October 19
Family Weekend		Friday, October 28
	through	Sunday, October 30
Deadline: Course Withdrawals (W Grades) / Last Day for Reporting Final Exam Conflicts	4 P.M.	Friday, November 4
Thanksgiving Recess Begins at the Conclusion of Classes		Wednesday, November 23
Regular Schedule Resumes	8 A.M.	Monday, November 28
Classes End		Thursday, December 8
Performance Day		Friday, December 9
Study Days		Saturday, December 10
		Sunday, December 11
FINAL EXAMINATIONS		Monday, December 12
	through	Friday, December 16

Semester Concludes ALL FACULTY, STAFF, AND STUDENTS MUST BE AVAILABLE UNTIL THE SEMESTER CONCLUDES AT 3:00 P.M. ON FRIDAY, DECEMBER 16	Friday, December 16
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Mid-Year Vacation Begins at the Conclusion of Exams		Friday, December 16
Deadline: Final Grades	4 P.M.	Monday, December 19
Deadline: Outstanding Incomplete Grades		
Convert to Failing Grades	4 P.M.	Thursday, February 16

Academic Calendar

SPRING SEMESTER 2006

Martin Luther King, Jr. Day (No Classes)		Monday, January 16
Classes Begin		Tuesday, January 17
Last Day for Course Changes and Declaring Pass-Fail Courses		Thursday, January 26
Deadline: Outstanding Incomplete Grades Convert to Failing Grades	4 P.M.	Thursday, February 16
Deadline: Mid-Semester Grades	4 P.M.	Friday, March 3
Spring Recess Begins at the Conclusion of Classes		Friday, March 3
Regular Schedule Resumes	8 A.M.	Monday, March 13
Second Quarter PE Begins		Monday, March 13
Deadline: Course Withdrawals (W Grades) / Last Day for Reporting Final Exam Conflicts	4 P.M.	Friday, March 24
Easter Recess Begins at the Conclusion of Classes		Thursday, April 13
Regular Schedule Resumes	8 A.M.	Tuesday, April 18
Honors Convocation	3:30 P.M.	Sunday, April 23
Classes End		Thursday, May 4
Performance Day		Friday, May 5
Study Days		Saturday, May 6 Sunday, May 7
FINAL EXAMINATIONS		Monday, May 8
	through	Friday, May 12

Semester Concludes ALL FACULTY, STAFF, AND STUDENTS MUST BE AVAILABLE UNTIL THE SEMESTER CONCLUDES AT 3:00 P.M. ON FRIDAY, MAY 12	Friday, May 12
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Deadline: Final Grades	4 P.M.	Monday, May 15
BACCALAUREATE		Saturday, May 20
COMMENCEMENT		Sunday, May 21
Deadline: Outstanding Incomplete Grades Convert to Failing Grades	4 P.M.	Friday, July 14

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