DIRECTIONS FOR CORRESPONDENCE

The post office and telegraph address of the College is Williamstown, Massachusetts 01267. The telephone number is (413) 597-3131.

Correspondence concerning matters of general interest to the College should be addressed to the President.

Other inquiries should be addressed to the officers named below:

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<td>Admission of students</td>
<td>Director of Admissions</td>
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<td>Alumni matters</td>
<td>Secretary of the Society of Alumni</td>
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<td>Business matters</td>
<td>Business Manager</td>
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<td>Catalogs and brochures</td>
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<td>Graduate study</td>
<td>Chairman of the Committee on</td>
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<td>Educational Policy</td>
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<td>Scholarships and financial aid</td>
<td>Director of Financial Aid</td>
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<td>Student affairs</td>
<td>Dean of the College</td>
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<tr>
<td>Transcripts and records</td>
<td>Registrar</td>
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The corporate name of the College is The President and Trustees of Williams College. Williams College is accredited by the New England Association of Schools and Colleges.

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Williams College admits men and women of any background to all the rights, privileges, programs and activities generally accorded or made available to students at the College. It does not discriminate on the basis of race, color, religion, creed, sexual orientation, or national or ethnic origin in administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other College-administered programs. The College does not discriminate on the basis of sex in violation of Title IX of the Education Amendments of 1973, or the regulations thereunder, in the education programs or activities which it operates, including employment therein. The College does not discriminate on the basis of handicap in violation of Section 504 of the Rehabilitation Act of 1973, or the regulations thereunder, in admission or access to its programs and activities. Inquiries concerning the College's nondiscrimination policies may be referred to the Dean of the College, Hopkins Hall, Williamstown, MA 01267 (413-597-2171).

STATEMENT OF OWNERSHIP
MANAGEMENT AND CIRCULATION FOR
WILLIAMS COLLEGE CATALOG
As required by the Act of Congress,
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8. Owner: President and Trustees of Williams College, Hopkins Hall, Williamstown, Mass. 01267
9. None.
I certify that the statements made by me above are correct and complete.

Stephen Fix
Editor
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Additional information about Williams College and its educationa­
tional programs can be found in other issues of the WILLIAMS
COLLEGE BULLETIN.

Number 1—Courses of Instruction (April)
Number 2—Williams College (May)
Number 3—Student Handbook (August)
Number 4—Catalog (September)
HISTORY OF THE COLLEGE

The chartering of Williams College in 1793 was an act of faith and certainly an act surpassing the modest intentions of Colonel Ephraim Williams, for whom the College is named.

Colonel Williams had not intended to found a college. Enroute with his regiment of Massachusetts militia to join battle with the French and Indians at Lake George, the Colonel had tarried long enough in Albany to write his last will and testament on July 22, 1755. In it he bequeathed his residuary estate for the founding and support of a free school in West Township, where for some years he had commanded a detachment of militia at Fort Massachusetts, farthest outpost of the province. The will stipulated that West Township, then in dispute between Massachusetts and New York, must fall within Massachusetts and that the name of the township must be changed to Williamstown, if the free school was to be established at all.

On September 8, 1755, Colonel Williams was killed at the Battle of Lake George. On October 26, 1791, after many delays, fifteen scholars were admitted to the free school in Williamstown. Within a year the trustees, not content with the original modest design of the founder, were captivated by the idea of creating a college where, as they put it, "young gentlemen from every part of the Union" might resort for instruction "in all the branches of useful and polite literature." The proposal was extremely ambitious, to be sure, but ambition was a common American ailment. England did not develop a third university until the nineteenth century; Williams was the twenty-first institution of higher learning to flower in the onetime British colonies, the second in Massachusetts, the sixth in New England. On June 22, 1793, the Commonwealth of Massachusetts granted a charter to Williams College.

The bold decision to plant a college in the wilderness betrayed the intentions of Colonel Williams; yet the new vision had been fed by the same sort of dreams that had led Ephraim Williams to see a school and a comfortable community where only a military outpost had stood. The early trustees and the legislature of the Commonwealth were to be remembered for their foresight, but in the decades after 1793 they had reason to acknowledge that the soil they had chosen was stubbornly uncongenial—so uncongenial, in fact, that for many years the trustees of Williams spent more time and energy in trying to close the College than in keeping it open.

In 1819 they petitioned to move the College to Northampton, and in 1821, having been spurned by the legislature, President Zephaniah Swift Moore took matters into his own hands. Convinced that almost everything about Williams was impossible—its location, its funds, its enrollment—he led a group of students over the mountains into the Connecticut valley. There he became their president once again, at the struggling new college known as Amherst. As for Williams, one member of the senior class wrote home to his father: "It remains for us to say whether it shall die suddenly, or whether it shall linger along for two or three years."
History of the College

In the past the public had come to the support of the institution. A lottery furnished funds essential to the opening of the free school. A public subscription was the answer of Berkshire County to the threat of removal in 1819. What saved the College in 1821 was the willingness of the Reverend Edward Dorr Griffin to take the job of president and the determination with which he drew upon the College’s reputation for religious conservatism to collect much-needed funds. By 1828, the Reverend Griffin could be seen standing in the middle of Main Street, supervising the construction of a handsome new building, housing a chapel, a library, and classrooms, a testament to his confidence and his skill. The building is now known as Griffin Hall.

The College which had been taking shape under Griffin and his predecessors was not unlike many other New England colleges where the classical curriculum and a moral atmosphere served as the basis for training young men for professional life. The College turned out its share of clergymen, doctors, lawyers, and teachers, serving the needs of Western Massachusetts and surrounding communities in New York and Vermont. But Williams was not yet a place to which “young gentlemen from every part of the Union” resorted. In fact, Nathaniel Hawthorne, attending the commencement exercises in 1838, jotted in his notebook some observations on the Williams students he saw there: “Country graduates—rough, brown-featured, schoolmaster looking. . . . A rough hewn, heavy set of fellows from the hills and woods in this neighborhood; unpolished bumpkins, who had grown up as farmer-boys.”

Williams seldom knew financial security until the end of the nineteenth century. But it did have assets that enabled it to develop into a prototype of the small New England liberal arts college. Scenery, a reputation for moral soundness, a loyal body of alumni, and a devoted faculty went a long way toward compensating for inadequate funds.

Of the scenery, Thoreau remarked, after a visit in 1839, “It would be no small advantage if every college were thus located at the base of a mountain.” For Thoreau the location of Williams was “as good at least as one well-endowed professorship.”

In the early years the religious reputation of the College depended on the essential orthodoxy of its presidents and faculty. It gathered strength from the famous episode of the “haystack meeting” in the summer of 1806. Five Williams undergraduates, seeking to continue their prayers and conversations in spite of a sudden thunderstorm, retired from a grove of trees to the shelter of a nearby haystack, where they were inspired to launch the great adventure of American foreign missions. The College’s reputation for soundness in religion benefited, too, from the fact that its extremely informal ties with the Congregationalists saved it from the sometimes stifling stranglehold of an organic denominational connection.

During a crisis in the affairs of the College in 1821, a group of alumni met in Williamstown and organized the Society of Alumni, dedicated to the future welfare of the College. Their action gave Williams the distinction of organizing the first college alumni society in history. Alumni loyalty was rewarded when, in 1868, the College provided for official alumni representation on the board of trustees, an act of recognition in which only Harvard, among American colleges, anticipated Williams.
II

But essentially the College has built its reputation around teachers and teaching. Mark Hopkins, who was a Williams professor from 1830 to 1887 and president of the College from 1836 to 1872, has become a symbol of this emphasis. In American education Hopkins pioneered in making the student the center of the educational experience, and he did it so well that one of his former students, U.S. President James A. Garfield, immortalized his achievement in an aphorism which has passed into the lore of American education: “The ideal college is Mark Hopkins on one end of a log and a student on the other.” The Hopkins tradition has become one of the College’s great assets. It has been perpetuated in the lives of generations of teachers.

Scenery, a reputation for building sound character, loyal but not especially affluent alumni, and devoted teachers could keep the College open, but like most other colleges Williams did not experience growth and prosperity until the closing decades of the nineteenth century. The scenery, of course, remained constant, but it developed into an even greater asset as the United States became more urbanized and industrialized. Williams was still a country college: a Massachusetts court decision of 1888 declared that cows owned by the college were tax exempt. The discovery that businessmen could profit from liberal education sent college enrollments upward as the century drew to a close; now more Williams alumni were men of affairs, fewer were clergymen. By 1906, of all the colleges in New England, Williams drew the largest percentage of students from outside New England.

From 1793 through 1870 the Commonwealth of Massachusetts appropriated for Williams College over $150,000, a sum of such importance that Mark Hopkins himself observed that he did “not see how the College could have got on” without state aid. A new and more dependable source of financial support was developed as the century drew to a close. In the 1890’s Frederick Ferris Thompson of the Class of 1856 became the first of many individuals to supersede the Commonwealth as the largest benefactor of the College. Ephraim Williams’ original bequest of $9,297 has since grown by additional gifts and bequests to an endowment valued at approximately $160 million.

III

Williams moved into the twentieth century firm in its intentions to remain a college, at a time when aspirations toward university status were unsettling many of the old colleges. It adhered to a curriculum that was designed for undergraduates; it made room for the elective principle, but it subjected course election to safeguards and controls. The idea of a liberally educated man was not jettisoned in favor of the widely accepted idea of almost complete student freedom in course election. A survey of the college curriculum in 1925 showed that Williams had combined the principles of prescription and election, the goals of concentration and distribution, in such a way as to be the only major American college without any absolutely required courses and without any uncontrolled wide-option electives. The Williams curriculum has continued to evolve, but it has not undergone such a series of major overhauls as characterize curriculums inspired by the popular educational fancy of the moment. Not having abandoned itself to the elective
principle in the nineteenth century, Williams did not need to rescue itself with the general education principle in the twentieth century.

During its long history much of the life and tone of the College was shaped by students. While the same influence continues, the competitive pressure for admissions since World War II has allowed for a new and significant degree of selectivity on the part of the College. Among the consequences of this change has been a quickening of the intellectual life of the College and a reconsideration of traditions and emphases no longer considered appropriate for an institution of liberal learning.

Among the first traditions to go was compulsory religious exercises, abandoned in 1962 after a hundred years of gradual but steady erosion. Voluntary worship in the form of ecumenical chapel services and the activities of student religious organizations carry on another long tradition. In response to the concern of undergraduate leaders and the faculty and in recognition of the failure of Greek Letter Fraternities to fulfill adequately objectives consistent with college purpose, the Trustees in 1962 took the first of a series of actions that replaced fraternities with a residential house system. Williams became, as a result, a much more open community. The decision to become coeducational and the admission of women to Williams as degree candidates in 1970 has reinforced the spirit of equality and freedom conducive to a climate of learning.

In this atmosphere of change and heightened purpose the curriculum underwent appropriate transformations, as a careful comparative study of the yearly catalogues readily shows, leading to the present 4-1-4 curriculum and a more flexible and wide-ranging schedule and program both on and beyond the campus. In spite of change, however, the guiding spirit of the College has not wavered from the statement expressed by Mark Hopkins in his inaugural address of 1836: “We are to regard the mind, not as a piece of iron to be laid upon the anvil and hammered into any shape, nor as a block of marble in which we are to find the statue by removing the rubbish, nor as a receptacle into which knowledge may be poured; but as a flame that is to be fed, as an active being that must be strengthened to think and to feel—and to dare, to do, and to suffer.”
THE CURRICULUM

Williams College offers a course of study leading to the degree of Bachelor of Arts. The course requirements prescribe both the number of courses to be completed and the minimum grade level to be achieved; the curriculum also requires that each student explore several fields of knowledge and concentrate in one. The full requirements for the degree include meeting the minimum academic standards stated below, residence at the College, fulfillment of the distribution requirement, completion of a major, and completion of the physical education requirement.

The academic year is divided into two regular semesters and a Winter Study Program. The student takes four courses in each semester and during January pursues a single program of study on a pass-fail basis.

The Winter Study Program which began in 1967 is intended to provide students and faculty with a dramatically different educational experience in the January term. The differences are in the nature of the courses, the nature of the learning experience, and the change of educational pace and format from the fall and spring semesters. These differences apply to the faculty and students in several ways: faculty can try out courses with new subjects and techniques that might, if successful, be used later in the regular terms; they can explore subjects not amenable to inclusion in regular courses; and they can investigate fields outside their usual areas of expertise. In their academic work which is graded Pass, Perfunctory Pass, or Fail, students can explore new fields at low risk, concentrate on a subject that requires a great deal of time, develop individual research projects, or work in a different milieu (as interns, for example, or on trips outside Williamstown). In addition, Winter Study offers students an opportunity for more independence and initiative in a less formal setting, more opportunity to participate in cultural events, and an occasion to get to know one another better.

Freshmen select one course from among a group of interdisciplinary seminars devoted to the study of influential ideas and systems, great works of art, or major historical events, and designed to illustrate the spirit of liberal learning. Sophomores and juniors select one subject of study, chosen from the list of January course offerings or elected as a project of independent study, either on or off campus, in cooperation with an instructor. Seniors are encouraged to elect a project in their major or program of concentration.

REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE

Academic Requirement

To be eligible for the Bachelor of Arts degree a student must pass 32 semester courses and receive grades of C minus or higher in at least 19 of those semester courses, pass four Winter Study Projects (unless excused from one by the Committee on Academic Standing), attain an average of C minus in the major field, and complete eight quarters of physical education.

Residence Requirement

Students who enter Williams as freshmen must spend a minimum of six semes-
The Curriculum

sters in residence at Williams. Students transferring to Williams from another institution must spend a minimum of four semesters in residence at Williams, and those entering as sophomores are expected to spend six semesters in residence. Students are considered to be in residence if they are taking a program of study under the direction of the Williams College Faculty. Students must be in residence for both semesters of their final year.

The degree requirements must be completed within eight semesters, including any semesters for which a student receives credit while not in residence at Williams. Thus, semesters spent away on exchange programs with other colleges or on junior year abroad and semesters made up of Advanced Placement courses (if the student wishes to accelerate and the Committee on Academic Standing approves) count toward this total.

Distribution Requirement

For the purposes of the Distribution Requirement, the departments of the College are grouped into three divisions: Division I, Languages and the Arts; Division II, Social Studies; and Division III, Science and Mathematics. Each student must complete at least two graded semester courses in each division by the end of the junior year.

Courses which fulfill the distribution requirement in Division I are designed to help students become better able to respond to the arts sensitively and intelligently by learning the language, whether verbal, visual or musical, of a significant field of artistic expression. Students learn how to develop the capacity for critical discussion, to increase awareness of the esthetic and moral issues raised by works of art, and to grow in self-awareness and creativity.

Courses which fulfill the Division II requirement consider the institutions and social structures that human beings have created, whether knowingly or unknowingly, and which in turn markedly affect their lives. These courses are intended to help the students recognize, analyze and evaluate these human structures in order that they may better understand themselves and the social world in which they live.

Courses which fulfill the Division III requirement are intended to provide some of the factual and methodological knowledge needed to be an informed citizen in a world deeply influenced by scientific thought and technological accomplishment, and to cultivate skill in exact and quantitative reasoning.

**DIVISION I. Languages and the Arts**

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<th>French</th>
<th>German</th>
<th>Greek</th>
<th>History of Ideas</th>
<th>Latin</th>
<th>Literature in Translation</th>
<th>Music</th>
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**DIVISION II. Social Studies**

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<th>Religion</th>
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<td>History</td>
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The Curriculum

Afro-American Studies
American Studies
Anthropology
Asian Studies
Economics

History of Ideas
History of Science
Philosophy
Political Economy
Political Science

Russian, Soviet and
East European Studies
Science and
Technology Studies
Sociology
Women’s Studies

DIVISION III. Science and Mathematics

Astronomy
Biology
Chemistry
Computer Sciences

Geology
History of Science
(specified course)

Mathematical Sciences
Physics
Psychology
(specified courses)

Major Requirement

The Major Requirement is designed to assure that all Williams undergraduates will have the experience of disciplined and cumulative study, carried on over an extended period of time, in some important field of intellectual inquiry. Juniors are required to declare a major field of concentration; the actual selection of a major is normally made at the time of registration in the spring of the sophomore year.

Major Fields

Majors are offered in the following fields:
American Studies
Anthropology
Art
Astronomy and Physics
Biology
Chemistry
Classics (Greek, Latin)
Computer Science
Economics
English
Geology
German
History

Mathematical Sciences
Music
Philosophy
Physics
*Political Economy
Political Science
Psychology
Religion
Romance Languages
French
Spanish
Russian
Sociology
Theatre

*Offered jointly by the Departments of Economics and Political Science

General Structure

1) A student ordinarily must elect at least nine semester courses in his or her major field. A particular major may also require an additional course and/or one Winter Study Project during the junior or senior year.

A student may also fulfill the minimum requirements for a major by taking eight semester courses in the major field and two semester courses, approved by a major advisor, in associated fields. In interdepartmental majors, such as Political Economy, a larger number of courses may be required.
The Curriculum

2) A prescribed sequence of courses, supplemented by parallel courses, and ending in a senior major course, is required in some major fields. Other majors ask the student to plan a sequence of elective courses, including advanced work building on elementary courses in the field, and ending in a one or two semester faculty-organized course or project in the senior year. All fields of concentration provide a system of counseling to help students plan programs reflecting individual interests as well as disciplined and cumulative patterns of inquiry.

Courses in many major programs require prerequisite courses in related areas. A full description of the detailed structure of each major is found under the heading of that major in the section, “Courses of Instruction.”

Contract Major

A limited number of contract majors is also permitted for specially qualified and dedicated students who wish to undertake coherent study of an interdisciplinary subject not covered by a regularly offered major. Since considerable time is required for approval of a contract major, interested students should begin to formulate their proposals early in the spring semester of the sophomore year. Procedures for arranging a contract major and for honors work in such a major are described in the section, “Courses of Instruction.”

Double Major

A student with a strong interest in two regular majors may double major with the permission of each major department or program and the Committee on Academic Standing. Although a student may be granted permission to use a course from one department or program to fulfill a particular requirement in the other, the student nevertheless must take the minimum number of courses in each field without counting any course twice. A student may be a candidate for Honors in either or both of the majors, but a course for Honors in one major may not be used for an Honors course in the other.

Co-ordinate Programs

In addition to majoring in a field, a student may choose to concentrate elective courses on a single topic or area, such as African and Middle Eastern Studies; Afro-American Studies; Asian Studies; Comparative Literature; Environmental Studies; Russian, Soviet, and East European Studies; Science and Technology Studies; or Women’s Studies. Descriptions of such possible co-ordinate programs appear under the appropriate heading in “Courses of Instruction.” A student making such a choice often can waive certain prerequisites for courses in the program, and may be granted a reduction in the number of courses required to complete the major.

Physical Education Requirement

The Physical Education requirement provides students the opportunity of establishing and maintaining a general level of fitness and well-being; of developing abilities in carry-over activities; of discovering and extending their own physical capabilities; and of developing skills in activities with survival implications, such as swimming, life saving and water safety.
A swim test is required of all freshmen at the start of the academic year. Students who fail to complete the test must pass a basic swim course given in the Physical Education program during the first quarter of the year.

Students must complete eight quarters of physical education by the end of the sophomore year unless excused by the Dean or the Director of Health. Extensions can be granted by the Dean of the College in consultation with the Physical Education Department to postpone completion until junior year.

Students must enroll in at least three different activities in fulfilling the requirement and at least two quarters must be devoted to one carry-over sport, as defined by the Physical Education Department. No more than four of the required eight units may be earned by participating in the marching band, by serving as team manager, or both.

**ADDITIONAL CURRICULAR OPPORTUNITIES**

*Advanced Placement*

At the discretion of the appropriate departments, students presenting satisfactory scores in Advanced Placement examinations may be placed in advanced courses not regularly open to freshmen and/or they may receive course credit toward the degree. A.P. credit, if granted, can be used to satisfy the Distribution Requirement*, as a prerequisite; in partial fulfillment of the major requirement; and (if in two or more subjects) for acceleration. A.P. credit can not be used to reduce the normal course load of any semester nor to make up a deficiency incurred at Williams.

*Independent Study*

When a particularly able candidate wishes to pursue the study of a subject not covered by the normal course offering of the College, arrangements may be made for him or her to undertake courses of independent study under faculty supervision. Arrangements for independent study are made with the appropriate department at the time of registration, and must be approved by the Committee on Academic Standing.

*Student Initiated Courses*

A Student Initiated Course is one proposed and organized by students and involves common group responsibilities, such as reading and discussion. The instructor supervises syllabus, student participation, and performance. Usually, in such courses, the students carry a heavy burden of the leadership in proposing requirements, selecting material to be covered, and conducting discussions, as well as in conceiving the basic outline of the course. The instructor is responsible for evaluating and grading students.

1) Student Initiated Courses for the fall and spring semesters are designated by the numbers 487 and 488 respectively.

2) In order to provide for departmental planning, students should discuss plans for Student Initiated Courses in the coming year at the beginning of the previous spring semester.

*Beginning in the 1986-87 academic year, A.P. credit will no longer be able to be used to satisfy distribution requirements.*
The Curriculum

3) Interested students should propose Student Initiated Courses to a potential faculty instructor and the department by the following deadlines:

Fall semester courses: before the end of spring registration
Spring semester courses: before the end of fall semester

4) Proposals for Student Initiated Courses should include descriptions of the aims and anticipated techniques of the course, as well as a statement concerning any anticipated constraints on enrollment. Enrollment might be based on such educational considerations as the student's background of knowledge, individual potentialities for growth and development, maximum feasible size of discussion groups, and availability of special materials or resources.

5) All Student Initiated Courses, including criteria for enrollment, must be approved by:
   a) a faculty member who agrees to be the instructor of the course;
   b) that faculty member's department;
   c) the Committee on Educational Policy.

6) A student may enroll in no more than one Student Initiated Course each semester. No more than six such courses may be credited towards a Williams B.A.

7) At the end of each Student Initiated Course, the faculty instructor files with his or her department and with the CEP a report on the course's content, a summary syllabus, and an evaluation.

Honors Program

Williams awards the degree with Honors to those students who have demonstrated imagination, initiative, and intellectual independence within their major by following a pattern of study determined by their major department or program. The Honors program requires two courses constituting a clearly interrelated pattern of study, whether in the form of a thesis, specialization within the major, or interdisciplinary study with courses from other programs or departments. At least one of the two courses must be in addition to the minimum number required for the major; one may be a Winter Study Project. A student who is a double major may be a candidate for Honors in either or both of the majors, but a course for Honors in one major may not be used as an Honors course in the other.

Individual departments and programs describe special criteria, procedures, and patterns of study for Honors in the "Courses of Instruction" section. Students should consult with their departments on their Honors options prior to their senior year. After the student has completed the first two of the three course units, the department or program determines whether the student is admitted to Honors candidacy. The degree is awarded with Honors or Highest Honors at the end of the senior year if, in the judgment of the major department, its criteria of excellence have been met.

The route to the degree with Honors in a contract major is normally the thesis. Requirements and procedures are described in the "Courses of Instruction" section.

Study Away From Williams

Under certain circumstances, students may receive credit for work done at institutions or on programs other than at Williams. A student who wishes to enroll in
another institution and to transfer credits to Williams should consult in advance with the Dean and with the appropriate departmental chairman. Applications for study elsewhere require the approval of the chairman of the student's major department, the Dean and the Committee on Academic Standing.

**Williams-Mystic Program in American Maritime Studies**

This program, which is supervised by a Williams faculty member, offers one semester of specialized study at Mystic Seaport, Connecticut. It offers courses in maritime history, literature, marine ecology, oceanography, and a multi-disciplinary seminar in the uses of the sea. Interested students should consult the Dean's Office and the “Courses of Instruction” section of this catalog.

**Williams at Oxford**

Williams College offers a year-long program of studies at Oxford University in cooperation with Exeter College, Oxford, where the courses are taught and many of the tutorials held. Based at Ephraim Williams House, Williams' new study center at Oxford, the program is designed to offer the fullest possible integration of the students into the intellectual and social life of one of the world's great universities. It makes full use of the Oxford tutorial system and the Oxford three-term calendar is followed.

While the central focus of the program is on British and Commonwealth studies, it also includes instruction in other fields for which Oxford is particularly noted or which are represented only marginally or infrequently in the Williams curriculum. Interested students should consult the Dean's Office and the “Courses of Instruction” section of this catalog.

**Exchange Programs**

The Twelve College Exchange Program includes Amherst, Bowdoin, Connecticut College, Dartmouth, Mount Holyoke, Smith, Trinity, Vassar, Wellesley, Wesleyan, Wheaton, and, for a semester program, the National Theatre Institute, in Waterford, Connecticut. In addition, the College maintains an exchange with California Institute of Technology, with Howard University, with Fisk University, and with Rensselaer Polytechnic Institute.

Information on the programs and copies of the participating schools' catalogs are available at the Dean's Office. Application deadline is in February of the preceding academic year.

**Study Abroad**

Williams participates in study abroad programs in Madrid (in cooperation with Hamilton, Mount Holyoke and Swarthmore Colleges); in Cairo (in cooperation with the American University in Cairo); in Beijing, with six other colleges); and in Kyoto, Japan (the Associated Kyoto Program, run by a group of eleven colleges). Williams students may also receive credit for approved programs at a wide variety of other institutions, or for work done directly in a foreign university if acceptable evaluation is possible. Students interested in study abroad should consult the Dean's Office. Application deadline is in April of the preceding academic year.
The Curriculum

Cross-Enrollment: Bennington and North Adams State Colleges

A limited number of students may register at Bennington College or North Adams State College for courses not offered by Williams. Interested students should consult the Dean’s Office since permission of the Deans at both home and host colleges is required.

Combined Program in Liberal Arts and Engineering

To qualified students who wish to combine a liberal arts curriculum with education in engineering, Williams College offers the opportunity to earn its Bachelor of Arts degree after six semesters here followed by the successful completion, usually in two additional years, of studies leading to the Bachelor of Science degree at most leading technological schools. For such students majoring in Physics, Chemistry, or Mathematics at Williams, the requirements for the Williams degree are modified by waiving the senior year courses and the major exercise. Admission to the Columbia University School of Engineering and Applied Science is assured by a formal agreement to students recommended by Williams. Admission to other technological institutes is not automatic; the student applies under the regular transfer procedures.

Only students who have taken the necessary courses, who have an average of at least B in scientific subjects, and who have a good record in other subjects will be recommended by their major department and the Committee on Academic Standing for this program. Students who wish instead to complete their undergraduate degree at Williams and then proceed directly to graduate study in engineering may want to take advantage of the opportunities available to them under the exchange programs with California Institute of Technology, the Thayer School of Engineering at Dartmouth and Rensselaer Polytechnic Institute. Inquiries should be directed to the Adviser to Pre-engineering Students.
ACADEMIC STANDARDS AND REGULATIONS

Payment of Term Bills

College bills for one-half of all fees are mailed to parents twice a year for payment on August 15 and December 15; a fee of $50 will be charged if payment is received after these dates. Term bills must be paid before students attend classes, and in order for a student to participate in Winter Study Period, the bill for second semester (due December 15) must be paid in full prior to the student's return to campus in January. Williams scholarships appear as credits on bills, but Williams loans will be credited only after the promissory note is signed by the student. GSL loans and scholarships from outside sources will be credited when the check is received by the Comptroller's Office.

All bills must be paid at the Comptroller's Office, and all books and materials must be returned to the Library, before a student is entitled to a degree or a transcript.

Registration

Registration for fall and spring semesters and for the Winter Study Program takes place at designated periods during the academic year. Students who do not complete their registration at these times are charged the following fees:

- $25 for late registration and enrollment
- $25 for failure to register by the end of the fall or spring semesters

Registration Procedures and Course Change Period

Freshman pre-register by mail in early summer; soon after arrival at Williams, they meet with their assigned Faculty Advisers to discuss the curriculum and their course selections. All freshman course changes are made with the approval of the Faculty Adviser. Freshmen may take no more than one course in a department each semester.

In the spring, all students receive registration instructions and forms. Students select eight semester courses and a winter study course for the following academic year and meet with their Faculty Advisers for discussion and approval of their selection. Sophomores may take no more than two courses in a given department in the same semester, and no more than three courses in a department during the full year. A student may take no more than a total of five courses in any one department during the freshman and sophomore years.

Course changes may be made during a designated period at the beginning of each semester. No course changes can be made after that period except with the approval of the CAS, by petition through the Dean's Office. A grade of E will be assigned to any course dropped after the course change period.

Freshmen and first semester transfer students are permitted to withdraw with a grade of "W" from a course as late as the end of the tenth week of the semester with the approval of the instructor and the Dean of Freshmen. The withdrawal will be approved only if there is complete agreement between the instructor and the Dean that the work evaluated in the course to that point clearly indicates that the student has little chance of passing the course and that the withdrawal is in the student's best interest. Only one such withdrawal is permitted, and the
deficiency thereby incurred must be removed by September of the following year in residence. See references to making up deficiencies on page 19.

Attendance

In order to give students a larger share of responsibility for their own education, Williams College does not administer a general system of required classroom attendance. The College expects students to make full use of their educational opportunities by regular class attendance and to assume the academic risks incurred by absences.

Although no formal system of class attendance is maintained by the College, instructors may set such standards of attendance as they feel are necessary for the satisfactory conduct of their courses. Students who fail to meet these standards may be warned by the instructor and notice sent to the Dean that continued absence will result in their being dropped from the course. Attendance is required at announced tests and final examinations unless the student is specifically excused by the instructor, the Dean, or the Director of Health. Satisfactory attendance in eight quarters of activities approved by the Department of Physical Education is required except for students excused by the Dean or the Director of Health.

Course Load

Students are required to take and complete four courses each semester. Exceptions may be granted for those students who, upon petition to the Committee on Academic Standing and with departmental approval at the time of registration, elect a pattern of five semester courses in the fall semester and three in the spring or three in the fall and five in the spring; a pass-fail course, discussed in the next paragraph, cannot be used as the fifth course in this pattern.

Fifth Course Pass-Fail Option

Except in the case of the unbalanced course program described above, a student may, at the beginning of any semester, enroll in a fifth course with the permission of the instructor and on a pass-fail basis only; this course must be specified as the pass-fail course. By the sixth week, a student must decide whether to continue the course, and if so, on a pass-fail or regularly graded basis. Only a regularly graded course may be used as one of the thirty-two semester courses required to complete the degree, or to fulfill a divisional requirement or to make up a deficiency.

Winter Study Project

Students must take and pass a Winter Study Project in each of their four years unless excused by the Committee on Academic Standing. Winter Study Projects are graded Pass, Perfunctory Pass, or Fail. All work for Winter Study Projects must be submitted by the last day of the Winter Study Program; work will be accepted after this date only with the permission of the Dean. Students who fail their Winter Study Project will be placed on Academic Probation by the Committee on Academic Standing and will be required to make up the deficiency in a manner determined by the Committee, usually by obtaining a grade of at least C minus in a summer school course approved in advance by the Dean or the Dean of Freshmen, or by taking a fifth graded course in a subsequent semester. Students who fail through gross neglect of work will normally be required to resign. A student who
receives a second Perfunctory Pass grade in Winter Study will be required to take a fifth course pass/fail in the fall or spring semester.

**Grading System and Records**

Williams uses the following system of grades: A, excellent; B, good; C, fair; D, passing; E, failing. These letters with plus and minus value have the following numerical equivalents in calculating grade averages:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Numerical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.33</td>
</tr>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>A−</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>B−</td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>C−</td>
<td>1.67</td>
</tr>
<tr>
<td>D+</td>
<td>1.33</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
</tr>
<tr>
<td>D−</td>
<td>0</td>
</tr>
<tr>
<td>E</td>
<td>0</td>
</tr>
</tbody>
</table>

If the instructor in a course, with the approval of the department and the Committee on Educational Policy, has determined that conventional grading is inappropriate to that course's ends, the instructor substitutes a "descriptive grade"—a written evaluation of the student's performance which becomes part of the student's permanent record. If the course is completed satisfactorily, the notation "S" will appear on the transcript in lieu of a letter grade. In a Winter Study Project, the instructor may use descriptive grading with the approval of the department and the Winter Study Committee.

A report of scholarship is sent by the Registrar to every student at the close of each semester. A permanent record of each student's scholarship is kept, and this official record forms the basis for any academic action by the College.

A transcript of a student's cumulative academic record is available from the Registrar's Office upon written request. The initial copy is free, all subsequent copies are one dollar each. Transcripts will not be issued for students who are in financial arrears.

Provisions relating to student records, access to them and safeguards on their use are specified in the section of the *Student Handbook* which describes the "Family Educational Rights and Privacy Act of 1974," also known as the "Buckley Amendment."

**Freshman Warnings**

In the middle of each semester, instructors report to the Registrar those freshmen whose grades, as estimated at that time, are unsatisfactory. Official notice is sent to each such freshman and a notice will be sent to the parents or guardian of a freshman who receives two or more warning grades.

**Admission to & Absence from Final Examinations, Extensions of Time, and Deficiencies**

A student who does not have a passing grade in the classwork of a course at the end of class meetings may not be admitted to the final examination and will receive a grade of E-deficiency for the course.

Students will not be admitted to the final examination unless they have completed all other work in the course; in courses without examinations, all written work must also be submitted by the last day of classes. A student who has not submitted all work for any course by the last day of classes must apply to the Dean for an extension of time, which is normally granted only for circumstances beyond the student’s control. Where appropriate, a grade penalty is recommended for these
Academic Standards and Regulations

extensions. No extensions will be granted beyond the date of the final examination or, in courses that have no final examination, beyond the end of the examination period except in cases of serious illness.

Only the Dean may grant extensions of deadlines beyond the last day of scheduled classes.

Students who have missed announced quizzes or hour tests must present a satisfactory explanation to the Dean before they are permitted to make up the examination. If a student is absent from a final examination, a make-up examination may be given only with the permission of the Dean and at a time determined by the Dean.

A student receives credit for a course by obtaining a grade of at least D minus, based on both the daily work and the final examination. If the student fails to do this, he or she must make up the deficiency in one of these ways, normally before the start of the next academic year:

1) pass an extra graded semester course at Williams to make up the credit;
2) obtain a grade of at least C minus in a summer school course, approved in advance by the Dean or the Dean of Freshmen, at an accredited four year college or university;
3) in case of a first semester failure in certain courses, obtain a grade of at least C minus in the work of the second semester of that course;
4) in the case of a failure in the first semester of senior year, pass an extra graded course in the second semester to make up this deficiency. This does not apply, however, to a failure in the first semester of a required major course. In this case, the senior may be dropped from the College at midyear.

Deficiencies can only be made up by courses taken after the deficiencies have been incurred. Thus, for example, Advanced Placement credits may not be used to make up deficiencies.

If a failure occurs in the first semester of a full-year course, the student may, with the consent of the instructor, continue the course. If a failure occurs in the second semester of a full-year course, credit for passing the first semester may be retained only upon the recommendation of the department concerned and with the approval of the Committee on Academic Standing.

Separation for Low Scholarship

It is the policy of Williams College not to permit a student to remain in residence after it has become evident that he or she is either unable or unwilling to maintain reasonable standards of achievement. At the end of each semester the Committee on Academic Standing will review all academic records which fail to meet the following minimum academic requirements:

For freshmen: Three passing grades including two grades of C minus or better each semester
Pass or Perfunctory Pass on the Winter Study Project

For upperclassmen: Three grades of C minus or better each semester
Pass or Perfunctory Pass on the Winter Study Project

Students whose records fail to meet these minimum academic requirements or whose records otherwise fail to show adequate progress (including the accumu-
Students who are required to resign from the College for academic reasons are normally not permitted to return for at least one year from the date of their resignation. A student who has been required to resign from the College may petition the Committee on Academic Standing through the Dean for reinstatement on two conditions only: all deficiencies must have been made up and a letter submitted to the Committee which offers convincing evidence that the student is now ready and able to complete work towards a degree at Williams without further interruption.

When required to resign, students must vacate their rooms promptly; financial aid students must also see the Director of Financial Aid before leaving, to discuss loan repayment and renewal of aid in the event of readmission.

Withdrawal from College in Good Standing

Students in good standing occasionally wish to withdraw from College for sound educational reasons. Students wishing to leave College should discuss their plans with the Dean or the Dean of Freshmen before departure; they must submit a letter requesting permission to withdraw, pay all College bills, and vacate their rooms promptly. Financial aid students must also see the Director of Financial Aid before leaving to discuss loan repayment and renewal of aid upon return.

No student may voluntarily withdraw from College in good academic standing after the sixth week of each semester. After that date, a student is expected to complete the work of the semester, and grades will be recorded for each course in which he or she is enrolled.

A withdrawal is granted by the Dean or the Dean of Freshmen for a full year, up to three years.

Students who withdraw in good standing are readmitted with the approval of the Dean. Upon return, students are expected to complete degree requirements without further interruption.

Refunds

Refund of payment for or credit on student accounts in the event of withdrawal or separation are as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Refund Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room fee</td>
<td>no refund</td>
</tr>
<tr>
<td>Board fee</td>
<td>pro rata</td>
</tr>
<tr>
<td>Tuition:</td>
<td></td>
</tr>
<tr>
<td>Within first ten calendar days after classes begin</td>
<td>85%</td>
</tr>
<tr>
<td>Eleventh through seventeenth calendar day</td>
<td>70%</td>
</tr>
<tr>
<td>Eighteenth day through sixth week</td>
<td>50%</td>
</tr>
<tr>
<td>After sixth week</td>
<td>no refund</td>
</tr>
<tr>
<td>For first semester freshmen, sixth through seventh week</td>
<td>40%</td>
</tr>
</tbody>
</table>

Miscellaneous fees are not refunded. Student Health Plan Insurance coverage, however, continues for the six months for which the fee has been paid.
Academic Standards and Regulations

Refunds on the accounts of financial aid students take into consideration repayment of all or a portion of their financial aid. Repayment is first made to federal programs in the following order: National Direct Student Loan (NDSL), Pell Grant and Supplemental Education Opportunity Grant (SEOG). Any balance reimburses other sources of aid in the following order: Williams scholarship, state grant, other scholarships, and family.

Repayment to federal programs is computed as follows:

$$\frac{\text{total federal aid (NDSL, Pell Grant, SEOG)}}{\text{total aid (all the above + all other)}} = \frac{X}{100}$$

This percentage times the total refund (as figured above under the refund policy) equals the minimum due the federal programs. The remainder is then distributed to the non-federal programs.

Eligibility for and Completion of Majors

To be eligible for any major, students must have received grades of C minus or better in each course taken in the freshman and sophomore years which is required in the major, and a Pass on any Winter Study Project they may have taken in that department. A senior may enter a major only upon the approval of the department chairman and by the Committee on Academic Standing of a petition stating the courses to be counted toward the major.

In addition to passing each major course and, where required, a major Winter Study Project, the student must maintain an average in the major of 1.67 or higher. Seniors who have an average of less than 1.67 in the major field will normally not be allowed to continue. A senior who receives a grade of E in the first semester of the required major course in the senior year may be dropped from the College at midyear. A student who falls below these standards may continue in the major only with the approval of the Committee on Academic Standing and the recommendation of the department or program.

A senior major exercise is not required by every department but is required by some. All departments setting such an exercise specify it as a requirement in the description of their major program in the “Courses of Instruction” section, and all students in those departments must complete the exercise satisfactorily.

Eligibility for Extracurricular Activities

A student is eligible to represent the College in any athletic, dramatic, literary, musical, student government, or other organization as a member, substitute, or officer, or to serve as a member of a student or Faculty-Student Committee, or as a class officer, unless he or she is made ineligible:

1) by the Dean;
2) by vote of the Discipline Committee; or
3) by vote of the Committee on Academic Standing because of a dangerously low record.

The Student Honor Committee may recommend to the Dean loss of eligibility as a penalty for a violation of the Honor Code.
Dean's List

All students who have attained a semester average of 3.33 or higher in a four course program in the preceding semester, are placed on the Dean's List.

Phi Beta Kappa Society

Students of the highest academic standing are eligible for election to membership in the Phi Beta Kappa Society in accordance with the following rules:

1) The requirements for election to membership shall be a grade point average of 3.33 and a Pass in all required Winter Study Projects. There shall be two elections of new members for each Class, at the end of the junior and senior years.

2) At the end of the junior year, all students in the highest five per cent of the class, ranked by cumulative grade point average, shall be eligible for election provided they have met the requirements and have completed enough courses to be considered candidates for the B.A. degree in the following year. A student who leaves Williams at the end of the junior year to attend graduate school may be elected under the above procedures.

At the end of the senior year, all students not yet elected and in the highest 12.5 per cent of the class, ranked by cumulative grade point average, shall be eligible for election provided they have met the requirements.

3) Normally students shall not be eligible for election unless they have been students at Williams College for at least two years; but this residency requirement shall be reduced to one year for any student who transfers to Williams College from an institution that has a chapter of Phi Beta Kappa or Sigma Xi.

4) A student who transfers credit to Williams College from another institution that has a chapter of Phi Beta Kappa or Sigma Xi shall have all grades count toward election to Phi Beta Kappa, provided that the candidate shall have maintained a 3.33 average in all courses taken at Williams College and a Pass in all required Williams Winter Study Projects.

5) Honorary members may be elected from distinguished alumni of at least twenty years' standing. No more than one such member shall be elected each year.

6) Any student who shall have gained his or her rank by unfair means or who is not of good moral character is ineligible to election.

7) The name of a member elect shall not be entered on the roll until he or she has accepted the election and has paid to the Treasurer the regular entrance fee.

8) Any immediate member who withdraws from the College before graduation or who falls short of the minimum Phi Beta Kappa scholastic standing may, upon a two-thirds vote of the members present at the annual meeting, be deprived of membership in the Society.

9) Any immediate member who is expelled from college shall be deprived of membership in the Society.

10) While connected with Williams College as an officer of instruction or administration, any graduate of Williams College who is a member of another chapter of Phi Beta Kappa shall be considered a regular member of the Williams chapter.
Academic Standards and Regulations

11) While connected with Williams College as professor, associate professor or assistant professor, or an officer of administration, any member of another chapter of Phi Beta Kappa shall have all the privileges of the Williams chapter, including holding office and voting. While connected with Williams College, any other officer of instruction or administration who is a member of another chapter shall have all the privileges of the Williams chapter, except holding office and voting.

Awarding of Degrees

By vote of the Trustees, the degree of Bachelor of Arts is conferred at Commencement upon students who have completed the requirements as to courses and grades to the satisfaction of the Faculty, have paid to the Business Office all College dues and other College charges, and have returned all books belonging to the Library. The right to a degree may, however, be forfeited by misconduct at any time previous to the conferring of the degree. No degree in absentia will be conferred except by special vote of the Trustees on petition presented to the Dean.

Graduation with Distinction

The Faculty will recommend to the Trustees that the degree of Bachelor of Arts with certain distinctions be conferred upon those members of the graduating class who have met the standards described below.

Students who have passed all Winter Study Projects and have obtained a four year average of:

- 3.33 to 3.59 — Bachelor of Arts cum laude
- 3.60 to 3.82 — Bachelor of Arts magna cum laude
- 3.83 or higher — Bachelor of Arts summa cum laude
ACADEMIC ADVISING

A variety of academic advice and counsel is provided to students during the course of their undergraduate education. Instructors, departmental and administrative officers and some special programs are available to help students explore and develop their academic interests and talents and take advantage of academic opportunities available through the college.

In the freshman year each student is assigned an academic adviser from the faculty and staff. This adviser is the registering officer with whom the student discusses course choices and academic requirements. The Dean of Freshmen coordinates this advising program and reviews academic performance with individuals as well. In the sophomore year students may seek advice from deans, former advisers, instructors, house associates, preprofessional and other special advisers. In addition, sophomores are encouraged to discuss major options and requirements with an adviser designated by each department and program before the declaration of a major in the spring semester. The list of departmental advisers is available in the Dean's Office.

In the junior and senior years students are advised by faculty in their major department or program. Each department or program determines its own advising system for its majors, although chairmen are regularly available for consultation.

Advising of entering transfer and exchange students, and of Williams students wishing to study elsewhere in the junior year, is coordinated by the Dean's Office. Special orientation and information meetings are held during the fall semester for new students and for students wishing to study abroad. Orientation and counseling of foreign students is arranged by the Foreign Student Adviser.

Additional programs of academic assistance are available through the Dean's Office. After conferring with the instructor, a student needing extra help in a particular course may request a tutor recommended to the Dean's Office by the department; these course tutorials are covered by special funds through the Dean's Office. Students seeking improvement of their writing skills in any course may take advantage of the Student Writing Workshops. Trained and supervised by a faculty coordinator, student writing tutors provide help with problems on papers already corrected and with drafts of papers in progress, while student mathematics tutors provide help to those with problems understanding basic mathematical ideas as they are applied in the various disciplines.

For advice about planning for postgraduate opportunities, students may consult departmental advisers, the Office of Career Counseling, or other special advisers listed in the catalog and may refer to the catalog section, "Preparation for Graduate and Professional Study."

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ACADEMIC HONESTY

All students are expected to be familiar with the Williams College Honor Code and to reaffirm their commitment to the Statement of Academic Honesty by signing an Honor Code Pledge at the beginning of each academic year. The Honor Code covers all aspects of academic honesty, including the writing of papers and laboratory reports as well as all quizzes, hour tests, and examinations.

Statement of Academic Honesty

As an institution fundamentally concerned with the free exchange of ideas, Williams College has always depended on the academic integrity of each of its members. In the spirit of this free exchange, the students and faculty of Williams recognize the necessity and accept the responsibility for academic honesty.

A student who enrolls at the College thereby agrees to respect and acknowledge the research and ideas of others in his or her work and to abide by those regulations governing work stipulated by the instructor. Any student who breaks these regulations, misrepresents his or her own work, or collaborates in the misrepresentation of another's work has committed a serious violation of this agreement.

Students and faculty are to report violations and alleged violations of this agreement. Such reports are to be submitted to the Student Honor Committee, consisting of the eight student members of the joint Faculty-Student Honor System-Discipline Committee. This committee is responsible for determining the guilt or innocence of the accused person or persons, and for setting appropriate punishments. A committee of faculty members to be designated by the Faculty will sit with the Student Honor Committee in an advisory capacity.

A quorum of three-quarters shall be required for the Committee to meet. A vote of guilty by at least three-quarters of those present is necessary for conviction. A recommendation for dismissal must be made by unanimous vote of those present, and shall be carried out only with the assent of the President of the College.

The Committee is responsible for informing the student body of the meaning and implications of this statement. The aforementioned faculty committee shall be responsible for informing faculty members of the meaning and implications of this statement.

Any amendments to this statement must be made through a student referendum in which two-thirds of the student body votes, and in which two-thirds of those voting vote for the amendment. These alterations must be ratified by the Faculty.

Guidelines

Individual instructors submit to the Honor Committee a written statement defining how the Statement of Academic Honesty applies to their courses or laboratories. At the beginning of each semester, instructors distribute these statements of guidelines to students in each course so that the Williams College Honor Code will be fully understood by all. Instructors may set any type of final examination or hour test, ranging from closed-book, alternate-seating classroom exercises to open-book, "take home" examinations or papers, and any requirements for laboratory exercises.
Academic Honesty

Some instructors encourage cooperation between students but others do not. It is the responsibility of each student to determine what conduct is appropriate in any course or laboratory; students uncertain about a particular situation should ask the instructor or a member of the Student Honor Committee. An open and highly individualized system can only last as long as both the students and the Faculty work together to create a true academic community.

In written material, students are expected to avoid the possibility of even unintentional plagiarism by acknowledging the sources of their work. Careful observance of accepted standards of reference and attribution is required. The basic rules are summarized below. Students are further advised to consult a recognized style manual to learn how to acknowledge sources correctly. While literary honesty does not demand a footnote on statements of common fact, it does require that a student provide clear footnotes or other appropriate documentation and give credit in the bibliography to ideas, interpretations, and facts that particular sources have contributed to the student's final work.

1) A direct quotation (whether a single word or a phrase, sentence, paragraph, or series of paragraphs) must always be identified by quotation marks, by indenting and single spacing, or by reduced type size of the quoted material, and a note must be used to state the exact source.

2) A paraphrase of the work of another must be acknowledged as such by a note stating the source.

3) Indebtedness to the specific ideas of others, or the summarizing of several pages, even though expressed in different words, must be acknowledged by a note stating the source.

4) Every instance of the use of another student's laboratory reports, computer programs, or other material must be acknowledged by a note.

5) Even the use of a student's own previous work must be acknowledged; thus, a student must obtain the prior permission of all instructors concerned before submitting substantially the same paper in more than one course.

Procedures for Alleged Violations

As soon as possible after receiving a report of an alleged Honor Code violation, the Student Honor Committee will convene to hear the case. The person bringing the charge will present the evidence to the Committee in the presence of the accused student, who may then speak in his or her own defense without the accuser present. After the accused student has left the proceedings, the Committee will determine innocence or guilt and, if the latter, will recommend an appropriate penalty to the Dean. Depending on the circumstances of the violation, penalties then imposed by the Dean include such possibilities as a letter of censure, which may or may not become a part of the student's permanent record, a directed grade of E in the course, or temporary or permanent separation from the College.
EXPENSES

Within the limits of available funds, Williams endeavors to offer its educational opportunities to all who qualify for admission. Income from its endowment and annual contributions from its alumni and friends have enabled Williams to keep its tuition at about half the actual cost per student to the College.

College Bills

College charges for tuition, room, board, and fees for the academic year 1984-85 are as follows:

- Tuition: $10,050
- Room Fee (including telephone service): 1,460
- Full Board: 1,900
- Student Activities Tax*: 73
- House Maintenance Tax: 40

Total: $13,523

Other Expenses

Based on a study of expenses reported by financial aid students, a minimum normal budget for a college year at Williams includes additional items estimated as follows:

- Books: 260
- Clothing: approximately 667
- Recreation, individual
- Room furnishings

Estimated year's total, exclusive of travel expenses**: $14,450

*A student activities tax for support of non-athletic student organizations is charged to all undergraduates as part of the College term bill. It includes for example, subscriptions to the college newspaper, and admission to most drama productions and musical events on campus.

**Travel expenses are not included in figures listed above. The cost of two round-trip tickets is added into each successful financial aid candidate's award.

Additional Items

A House Maintenance Tax of $40 per year is charged to upperclassmen as a part of the College term bill. It is used to provide a base for the social and cultural programs of each residential House and to meet any unusual maintenance expenses for the Houses. Freshman class dues of $5 are charged at the beginning of the year.

Students are strongly urged to carry the Student Health Plan, a Blue Cross-Blue Shield policy offered through the College with excellent twelve-month coverage for medical and psychiatric illness not cared for by the Student Health Service. Cost of the insurance is $196 per year.

Late registration or enrollment entails a charge of $25.
Expenses

**Payment of College Bills**

A non-refundable deposit of $200 to reserve a place in the freshman class is required from all admitted candidates (except certain financial aid recipients) by the Candidate's Reply Date of May 1. Every student continuing in the College is required to pay a similar deposit ($50 for students receiving financial aid) by June 1 to reserve a place for the following year; bills for this deposit are sent to parents in April and no refund will be made after July 15. For all students, the deposit appears as a credit on the term bill rendered in July.

College bills for one-half of all fees are mailed to parents twice a year—in mid-July, payable by August 15 and December, payable by January 15. Term bills must be paid before students attend classes. Scholarships appear as credits on bills, but student loans will be credited only when signed by the student at registration and returned to the Comptroller's Office through the Financial Aid Office.

For parents desiring to pay college bills in monthly installments and to protect the student's college plans with insurance, the College offers the services of the Insured Tuition Payment Plan c/o, Richard C. Knight, 53 Beacon Street, Boston, Massachusetts 02108. The Comptroller's Office sends full details of this plan to parents of incoming freshmen every spring, and information about it may be obtained from the Comptroller or directly from Mr. Knight at any time.

A Parent Loan Plan which enables parents to extend the payment period is also available. A twenty-four (24) month repayment schedule is allowed for each college year which is financed. Thus four years of college costs would be spread over 8 years; one year's costs would be spread over 2 years. This plan is administered by Richard C. Knight at the above address. A brochure describing this plan is available from the Comptroller or Richard C. Knight.

Williams also offers an installment plan whereby the yearly charges are paid in 10 equal installments starting in June, with no interest charges. There are no income restrictions. Monthly payments will be the total cost (less any scholarships, GSL or parent loans) divided by 10. There is a $15 registration fee for this program and penalty fees for late payments and late starts.

**Refunds**

Refund of payment for or credit on student accounts in the event of withdrawal are described on page 21.

**Financial Aid**

Williams has a substantial financial aid program to promote the greatest possible diversity in the social and economic background of the student population. Students interested in financial aid policies and procedures should consult Williams College: An Introduction or the Director of Financial Aid.
PREPARATION FOR GRADUATE AND PROFESSIONAL STUDY

Although the principal function of Williams is to provide a broad and solid liberal education which will be of lasting value no matter what vocation a student may pursue, the College recognizes that no fundamental conflict exists between a liberal education and preparation for a professional career; on the contrary, a foundation of liberal studies increases professional competence in any field. A student should plan his or her program of study so as to provide as much educational breadth and enrichment as circumstances permit. A student should also give serious consideration to post-college plans early in the college career.

Each departmental major provides the foundation for graduate study in the corresponding field. Students should consult the departmental programs listed under "Courses of Instruction" for requirements, and for special advice regarding preparation for graduate study. Students should also consult with the appropriate departmental chairmen or the special faculty advisers as early as possible in their college careers to make certain they have taken all the necessary factors into consideration.

Particular attention is called to the foreign language requirements of graduate study. Candidates for the degree of doctor of philosophy at almost all graduate schools are required to have a reading knowledge of both French and German. Under certain circumstances another language may replace French. Many graduate schools require also a knowledge of Latin for students of English and Romanic Languages. Candidates for the master of arts degree are required to have a reading knowledge of either French or German. Students should consult departmental chairmen or the faculty advisers for the requirements in specific fields of study.

Architecture

Although requirements set by various architectural schools differ, a course in calculus and courses in design and in history of art and architecture are required by all. The equivalent of one year of college-level physics is also required by some architectural schools.

Entering freshmen who plan to become architects should elect Art 101-102. See course descriptions for prerequisites for Art 320 and Art 419, the architecture studio courses. Additional studio courses including advanced drawing and/or environmental design are recommended in the junior year.

Students planning to become architects should consult the faculty adviser on the study of architecture.

Business Administration

Williams offers no special course in preparation for a business career or for graduate study in business administration. The qualities which are important to success in business, and which graduate business schools are seeking, are an ability to reason and to express oneself logically and clearly in written and oral exposition; a good understanding of the physical and social environment in which business operates; and an appreciation of human motivations and goals. This
means that a broad liberal arts program is preferred over a highly specialized one.

Within this broad prescription it may be desirable to have at least one year of economics and one year of mathematics (including statistics and calculus). For those interested in production management, additional work in mathematics and sciences would be helpful. Courses in American history and government provide important background understanding. In addition, a number of graduate business schools grant advanced standing for certain undergraduate courses successfully completed at Williams. For this information the student should consult the graduate business school adviser.

But there is no particular major at Williams that is designed as preparation for the business profession. Students interested in futures in business are encouraged to undertake a broad educational program in the arts, humanities, and sciences.

Students interested in graduate work in business administration should consult the Office of Career Counselling.

**Engineering**

A prospective engineering student is well advised to build professional engineering training on top of a liberal arts education. Such a student can secure basic science and mathematics at Williams College while exploring broadly in all fields of knowledge and, on graduation, can enroll in a graduate engineering school. In addition, opportunities to integrate engineering study into an undergraduate liberal arts program are offered by combined and exchange programs with various technological institutes. A student interested in an engineering career should consult the engineering faculty adviser as early as possible.

**Law**

Williams graduates regularly proceed directly to law schools on the strength of their liberal education. No special courses are presented for prelaw students.

Students intending to study law should consult with the Office of Career Counselling.

**Premedical and Predental Study**

The precise requirements of medical and dental schools are summarized in the pamphlet “Guidelines for Premedical Students at Williams,” available from the Premedical Adviser. A summary of the requirements of all medical schools is available in the annual bulletin of the Association of American Medical Colleges (AAMC), “Medical School Admission Requirements.” According to the current edition, “... Specific premedical course requirements ... vary among the medical schools, but all recognize the desirability of a broad education—a good foundation in the natural sciences (mathematics, chemistry, biology, and physics), highly developed communication skills, and a rich background in the social sciences and humanities.”

“Absolute requirements for medical school admission are purposely limited in order to allow latitude for developing individualized undergraduate programs of study. ... Most students do major in one of the sciences, frequently in an area of biology or chemistry. ... One should feel free (however) to develop his major area
Preparation for Graduate and Professional Study

of interest for its own sake, realizing that the medical school is more interested in the quality and scope of the work accomplished than in the... major field chosen by the student. Because so much of medicine rests on a scientific basis, however, the student who majors in a nonscientific field and elects the minimum number of required science courses must excel in them to insure the adequacy of his preparation and a favorable consideration of his application. A solid understanding of modern concepts in physics, chemistry, and biology is mandatory, for major advances in medicine are based on principles stemming from these disciplines.

Medical school requirements vary from school to school. Students are advised to take into consideration not only current minimum requirements but also recommended courses. A summary of the essential information required for curricular planning may also be found in the pamphlet “Choosing Freshman Courses,” distributed to all incoming freshmen by the Dean of Freshmen.

Teaching and Research

The most important qualification for careers in teaching at any level is proficiency in a major. Students interested in college teaching and research should prepare themselves at Williams for graduate work in the subject of their choice, whereas those interested in teaching at the elementary or secondary level should plan to meet certification while an undergraduate or to proceed from a sound undergraduate major to a Master of Arts in Teaching program in a reputable graduate school. Opportunities are available during Winter Study for teaching at the elementary or secondary level.

Students interested in college teaching should consult with the chairman of the department in which they intend to major. Those interested in teaching at the elementary or secondary level should consult with the Office of Career Counselling.

Religious Study

Students intending to go to theological seminary are not required to pursue a special course. Various majors are acceptable and most liberal arts courses can be useful to the prospective minister, priest, rabbi, or teacher of religion. However, given the increasing variety and complexity of post-graduate vocational choices in the field of religion, it is strongly recommended that the preseminarian secure a basic foundation in the study of religion while an undergraduate. Students contemplating advanced academic work in religion preparatory to a career of teaching and scholarship should give serious consideration to concentrating their undergraduate studies in religion.

Anyone interested in graduate programs in religion should consult with the faculty adviser in that field.
GRADUATE PROGRAMS AT WILLIAMS

Master of Arts in Development Economics

The Center for Development Economics which was established at Williams College in 1959 by a grant from the Ford Foundation, offers an intensive one-year program in economic analysis and quantitative techniques leading to the degree of Master of Arts in Development Economics.

The program is specifically designed for young economists from developing countries who are already embarked on professional careers in public agencies. It includes required courses in development economics, international trade, money and public finance, income distribution, statistics or econometrics, and planning and project analysis. Center Fellows choose among research seminars in such fields as agriculture, education, population, inflation, regional planning, and political development, and undertake individual research studies in one of these fields.

Fellows are normally nominated by the public agencies from which they will be on leave. A candidate must have a B.A. or B.Sc. degree of good quality in Economics, have two or more years of relevant experience, have effective command of spoken and written English, and do preparatory work in the summer program at the Economics Institute, Boulder, Colorado, sponsored by the American Economic Association.

Juniors and seniors majoring in economics or political economy who have a special interest in economic development or in a particular area of the world may, with the consent of the Chairman of the Center, satisfy some of their degree requirements by taking courses at the Center.

All communications relating to the degree of Master of Arts in Development Economics should be addressed to the CDE Admissions Officer, Department of Economics, Fernald House, Williams College, Williamstown, Massachusetts 01267.

Master of Arts in the History of Art

In cooperation with the Sterling and Francine Clark Art Institute, Williams College offers a two-year course of study leading to the degree of Master of Arts in the History of Art. The objective of the program is to offer a thorough professional preparation for careers in teaching and museums to a small number of students, and to enable them to pursue further research whether independently or at other institutions offering higher degrees. The curriculum consists of seminars in art-historical subjects and an intensive study of foreign languages in the context of the general literature of art. Problems of criticism, connoisseurship and conservation arising from the study of original works of art are fundamental to the program and opportunities are provided for practical experience in museum work at the Clark Institute and the Williams College Museum. The study of primary materials is further extended by field trips to other collections. The degree is normally awarded after two years of resident graduate study. To earn the degree students must take eight graduate seminars (usually two in each semester), and audit at least two courses during the two years. In special circumstances credit may be given for graduate work satisfactorily completed elsewhere. A demonstration of proficiency in reading two foreign languages, usually German and French, is required. In
Graduate Programs at Williams

addition to all course work students must pass a comprehensive oral examination by the end of the second year. The examination tests the students' knowledge of the particular fields studied in the graduate program and their ability to integrate this knowledge into the larger context of art history. In January of the first year students participate in a European study trip with a member of the faculty; in January of the second year, students undertake a project, also on a pass-fail basis. To enter the program a successful applicant must have been awarded the degree of Bachelor of Arts or its equivalent from an accredited institution. An undergraduate art major is not required for acceptance to the program.

For further information, write: The Director, Graduate Program in the History of Art, Box 8, Williamstown, Massachusetts 01267, or telephone (413) 458-8109.

Other Masters of Arts Programs

Normally other graduate work leading to the degree of Master of Arts is offered only in biology and physics. The degree of Master of Arts is awarded for not less than one year of resident graduate study to a holder of the Bachelor's degree from an accredited institution who satisfactorily completes the requirements. Two years are usually required to complete the program because the candidate, in addition to satisfying course, thesis, general examination, and language requirements, must participate in practice teaching, or research, or a combination of the two. Candidacy is open only to graduate teaching and research assistants, each one of whom receives a stipend and whose tuition and fees are remitted.

For detailed information concerning admission and the requirements for the degree, write to the Chairman of the Committee on Educational Policy, Williams College, Williamstown, Massachusetts 01267.
PRIZES AND AWARDS

The names of persons to whom awards have been made in 1984-85 are given in the back of this catalog.

George Olmsted, Jr., Class of 1925 Prizes

Awarded for excellence in teaching to four secondary school teachers nominated by members of the senior class.

Prizes in Special Studies

John Sabin Adriance Prize in Chemistry. From a fund given by John Sabin Adriance, 1882, a cash prize is given to the student who has maintained the highest rank in all courses offered by the department of chemistry.

Benedict Prizes. From a sum of money given by Erastus C. Benedict, 1821, once an instructor in the College, first and second cash prizes are awarded for excellence in biology, French, German, Latin, Greek, history and mathematics.

Kenneth L. Brown Award in American Studies. From a fund established by his parents in memory of Kenneth L. Brown 1947, a cash prize is awarded annually, at the end of the junior year, to a student specializing in some area of American studies, with preference given to students majoring in American Studies and to candidates for the degree with honors.

David Taggart Clark Prize. Established by a bequest from the estate of David Taggart Clark, a cash prize is awarded annually to a sophomore or freshman who excels in Latin declamation or recitation.

Conant-Harrington Prize in Biology. A cash prize founded by the class of 1893 in memory of two of their classmates is awarded upon the recommendation of the chairman of the department of biology for outstanding work done in biology.

Doris De Keyserlingk Prize in Russian. A book awarded annually by the department of Russian in honor of Doris de Keyserlingk, teacher of Russian at Williams College from 1958 to 1971, to a student who has earned distinction in Russian studies.

Garrett Wright De Vries Memorial Prize. From a fund in memory of Garret Wright De Vries 1932, given by his father, Dr. Joseph C. De Vries, a cash prize is awarded annually on recommendation of the department of Romance languages for excellence in Spanish.

Sherwood O. Dickerman Memorial Prize. In memory of Sherwood O. Dickerman, professor of Greek at Williams College, friends of Williams College and of the Classics donate annually a prize to a sophomore or freshman for distinguished work in Greek studies.
Prizes and Awards

Dwight Botanical Prize. From a fund created by the bequest of Nellie A. Dwight to establish a prize in memory of her father, Henry A. Dwight, 1829, a cash prize is awarded annually to the student who maintains the highest standing in botany or related area of study.

Gilbert W. Gabriel Memorial Award in Theatre. From a fund established in 1953 by a group of friends in memory of Gilbert W. Gabriel 1912, a cash prize is awarded to that senior who has made the most notable contribution to the advancement of theatre at Williams College. The committee of award includes the director of the Adams Memorial Theatre, one other faculty member, and the president of the Gargoyle Society.

Frederick C. Hagedorn, Jr. Prize. From a fund created in 1971 by friends and the family of Frederick C. Hagedorn, Jr. 1971 in his memory, a cash prize is awarded to a pre-medical student entering the senior class, on the advice of the Faculty Pre-Med Advisory Committee “in recognition of academic achievement and the embodiment of the principles of the medical profession.”

Henry H. Hamilton Premedical Award. Established in 1980 in memory of Dr. Henry H. Hamilton, 1925 by his widow as an award to a senior accepted by a medical school.

Thomas G. Hardie III Memorial Award in Environmental Studies. Established in 1976 by friends and members of his family in memory of Thomas G. Hardie III 1978. Awarded for the best student work in environmental studies judged in an annual competition. The prize consists of a certificate and publication of the work in the Tom Hardie Memorial Series.

Arthur Judson Prize in Music. Established in 1984 by a gift of $10,000 from the Arthur Judson Foundation. Selection to be made by the Faculty of the Music Department. Awarded to a student for achievement in music, with preference given to those “choosing or planning a career in Music Management or Music Administration”.

Arthur C. Kaufmann Prize in English. In memory of Arthur C. Kaufmann 1899, a fund has been established by his fellow workers for a book prize awarded annually on the recommendation of the English department for excellence in English.

Jack Larned International Management Prizes. In memory of Jack Larned, 1942, two annual prizes are awarded for student papers of superior quality dealing with the management of development in governments and private or public enterprises in African, Asian, or Latin American countries. One award will be for undergraduate students at Williams who are citizens of developing countries. The other will be for graduate students at the Center for Development Economics. Selection of the winners will be made by faculty members who specialize in economic development and related fields.

LEVERETT MEARS PRIZE IN CHEMISTRY. From a fund established by a member of the class of 1906, a cash prize is awarded to that senior majoring in chemistry who has been admitted to graduate study in the medical sciences or to medical school, and who, in the opinion of the members of the chemistry department, has had a distinguished record in chemistry and shows outstanding promise.

WILLIS I. MILHAM PRIZE IN ASTRONOMY. Established in 1968 by Betsey M. Milham, a cash prize is awarded to a senior who is majoring in science or mathematics, is a member of Phi Beta Kappa and has a grade of 'A' in at least one year course in the department of astronomy.

JOHN W. MILLER PRIZE IN PHILOSOPHY. A group of grateful alumni who studied under Professor John W. Miller have established a fund as a continuing symbol of their appreciation of his teaching. The income shall be used to purchase a book prize to be awarded to the individual selected by the chairman of the philosophy department as the outstanding philosophy student for that year.

RICHARD AGER NEWHALL BOOK PRIZE IN EUROPEAN HISTORY. In honor of Richard Ager Newhall, distinguished historian and teacher of history at Williams College, 1924-1956, the department of history awards a book to the freshman who writes the best essay in an introductory course in European history.

RICE PRIZES. From the bequest of James Lathrop Rice, 1884, for the encouragement of Latin and Greek scholarship, a cash prize is awarded to a junior or senior for distinguished work in Latin studies, and a similar prize is awarded for distinguished work in Greek.

THE ROYAL SOCIETY OF ARTS SILVER MEDAL. A silver medal awarded by the Royal Society of Arts in London to a student with a distinguished academic record “directly concerned with art or the application of art or science to industry or commerce” who has also played a significant part in student activities.

BRUCE SANDERSON AWARD FOR EXCELLENCE IN ARCHITECTURE. From a fund established by the friends, family, and classmates in memory of Bruce Sanderson, 1956, who died while serving in the United States Navy. Since Bruce Sanderson found his special interest at Williams and at graduate school in architecture, a cash prize is awarded to the senior who, in the opinion of the faculty members who teach architecture, shows the greatest achievement and promise in this field.

RUTH SANFORD MEMORIAL PRIZE IN THEATRE. Established in 1969 by Marshall D. Sanford, to be awarded to a graduating senior with demonstrated ability in the theatre, with preference given to a candidate who intends graduate study in theatre, the selection being made by the theatre faculty.

RUTH SANFORD MEMORIAL FELLOWSHIP IN THEATRE. Established in 1969 by Marshall D. Sanford, to be awarded to a Williams student for graduate study in the theatre or for participation as an apprentice or assistant with the Williamstown Summer Theatre. The selection is made by the director of the Adams Memorial Theatre and the director of the Williamstown Summer Theatre.
Prizes and Awards

Edward Gould Shumway Prize in English. In memory of Edward Gould Shumway, 1871, a fund has been established by his daughter, Mary Shumway Adams, from which a cash prize is awarded annually to a senior majoring in English who has, in the judgment of the English department, done the most distinguished work in English literature and composition.

Theodore Clarke Smith Book Prize in American History. In honor of Theodore Clarke Smith, distinguished historian and teacher of history at Williams College, 1903-1938 and 1943-44, the department of history awards a book to the student who writes the best essay in an introductory course in American history.

Howard P. Stabler Prize in Physics. Established in 1977 by Lewis S. Somers, 3rd, 1948, a cash prize is awarded “on the basis of demonstrated initiative, creativity, perseverance and achievement, as fostered and demanded, for example, by a successful undergraduate honors thesis. To so name and award the prize shows our gratitude and respect for the great success with which Howard Stabler guided so many thesis projects over many years and our conviction that such projects provide educational opportunities and vehicles for achievement which are well worth celebrating.”

Shirley Stanton Prize in Music. Established in 1982 by family and friends in memory of Shirley Stanton who served the college community in many ways since 1977. Awarded to that student who has best fulfilled his or her potential in music while at Williams.


Karl E. Weston Prize for Distinction in Art. In appreciation of Karl Weston’s, 1896, great service to Williams College as teacher and as Director of the Lawrence Art Museum, a book prize is awarded each year at commencement to a senior majoring in art whose work has shown unusual brilliance, imagination and industry.

Essay Prizes

Academy of American Poets Prize. A cash prize awarded by the department of English for the best poem or group of poems by an undergraduate. The prize was made possible originally by a bequest of Mrs. Mary Cummings Eudy, a former member of the Academy, and is now continued through the generosity of an anonymous donor. Twenty-four colleges and universities in various parts of the United States participate.

Gaius C. Bolin, 1889 Essay Prize. A cash prize established in memory of the first black graduate of Williams and prominent Poughkeepsie lawyer, for the best essay submitted by a Williams undergraduate in the field of Afro-American Studies.

Comparative Literature Essay Prize. A cash prize for the best essay submitted by a Williams undergraduate on any comparative topic involving two or more
national literatures, to be judged by a committee appointed by the Comparative Literature Program.

**Henry Rutgers Conger Memorial Literary Prize.** From a fund established by members of the class of 1899, in memory of their classmate, Henry Rutgers Conger, a cash prize is awarded annually for the best contribution of prose or poetry submitted to a literary magazine published by the undergraduates of the College, as judged by a committee from the department of English.

**Arthur B. Graves Fund.** Established by Arthur B. Graves, 1858, for six cash prizes each for the best six essays prepared by seniors on subjects assigned by the following departments: art, economics, history, philosophy, political science, religion. The fund also provides a cash award or awards for the best report or reports delivered in the senior Political Economy project.

**C. David Harris Jr. Book Prize in Political Science.** In memory of C. David Harris Jr. 1963, who died during his college career, a book is awarded annually to the Political Science major who writes the best essay in Political Science 203, 206. The prize was donated by his classmates through the Williams College Social Council of which David was a member, and the winner is selected by the political science department.

**Lathers Prize and Medal.** From a fund given by Richard Lather's, 1877, a cash prize and also a bronze medal, are given to the senior who writes the best essay of not less than one thousand words on the duty or relation of citizens to the government.

**Stanley R. Strauss Prize in Writing.** Established in 1985 by friends of Stanley R. Strauss, 1936, in honor of his 70th Birthday on June 3, 1985. Awarded to a member of the Senior Class majoring in English who has written the most outstanding Honors thesis, judged on the quality of research as well as on the quality of exposition.

**William Bradford Turner Prize in History.** From the income of a fund given by the family of William Bradford Turner, 1914, who was killed in action in France in September, 1918, a cash prize is awarded for the best thesis or essay in the field of American history or institutions.

**Carl Van Duyne Prize in Economics.** Established in 1983 by family, colleagues, friends and the Philip H. Seaman Fund in memory of Carl Van Duyne, Associate Professor of Economics at Williams who died in 1983. Selection made by the Economics Department Faculty from Juniors, who are Economics or Political Economics majors who have exhibited “not only a technical excellence in economics but also the inquisitive mind and motivation of a true scholar”. This prize provides a “stipend for the senior year as well as another for the first year of graduate school if the recipient goes on to do graduate work in Economics. In addition, the Van Duyne Scholar receives a stipend if he is able to devote the summer before the senior year to full-time research in Economics.”

**The Benjamin B. Wainwright Award in English.** From a bequest of Benjamin B. Wainwright, 1920, a cash prize for the best short story submitted by a student, to be judged by a committee of the department of English.
Prizes and Awards

DAVID A. WELLS PRIZE. From a bequest of David A. Wells, 1847, a major prize may be awarded for an essay upon a subject in political economy. Competition is limited to seniors and to graduates of not more than three years' standing. The successful essay may be printed and circulated by the College.

General Prizes

GROSVENOR MEMORIAL CUP. Given by the members of the Interfraternity Council of 1931 in memory of their fellow member, Allan Livingston Grosvenor. Awarded annually to the junior who has best demonstrated concern for the college community and beyond through extensive dedicated service and who has served with the utmost integrity and reliability. The committee of award consists of the chairman and the secretary of the College Council and three other members selected by the Council.

JAMES C. KELLOGG III AWARD. Established by his friends in memory of James C. Kellogg III 1937, the award is to be given annually to a Williams graduate or non-graduate for a truly distinguished career in any field.

JAMES C. ROGERSON CUP AND MEDAL. Presented by Mrs. James C. Rogerson and the class of 1892 in memory of Mr. Rogerson, a member of that class. The cup, a permanent possession of the College, is awarded annually for one year by the President of the College to an alumnus or to a senior for service and loyalty to the College and for distinction in any field of endeavor; a bronze medal is awarded for permanent possession of the recipient.

WILLIAM BRADFORD TURNER CITIZENSHIP PRIZE. From a fund established in memory of William Bradford Turner 1914, who was killed in action in France in September, 1918, a cash prize is awarded to the member of the graduating class who, in the judgment of the faculty and of the graduating class, has best fulfilled one's obligations to the College, to fellow students, and to self. The committee of award, appointed by the President of the College, is composed jointly of faculty members and members of the graduating class.

Rhetorical Prizes

DEWEY PRIZE. A cash prize, founded by Francis Henshaw Dewey, 1840, is awarded to the member of the graduating class who presents the most creditable oration in point of composition and delivery at the commencement exercises.

ELIZUR SMITH SPEAKING PRIZE. Established in the year 1866, this cash prize is awarded each year to encourage excellence in public speaking.

VAN VECHTEN PRIZE. A cash prize established by A. V. W. Van Vechten, 1847, awarded for impromptu speaking. The assignment of this prize is made by a committee of the faculty on the basis of a public competition.

Athletic Prizes

FRANCIS E. BOWKER, JR. SWIMMING PRIZE. A cup given by the late Francis E. Bowker, Jr. 1908, on which is engraved the name of the freshman member of the
men's swimming team who exhibited high qualities of performance, leadership and sportsmanship.

Belvidere Brooks Memorial Medal. From a fund established by alumni of the College, friends of Captain Belvidere Brooks 1910, who was killed in action at Villesavoye, France, August 21, 1918, this medal is presented to the member of the team whose playing during the season has been of the greatest credit to the College. No person shall receive the medal more than once.

J. Edwin Bullock Wrestling Trophy. Presented in 1960 by his fellow coaches and awarded annually to that varsity wrestler who because of his superior performance, courage, and loyalty has been of credit to his college.

Canby Athletic Scholarship Prize. A cash prize established by W. Marriott Canby, 1891, and awarded at commencement to the senior who has attained the highest average standing in scholarship during his or her course. The recipient must have been in college since the beginning of his or her junior year, and must have represented the College in a recognized intercollegiate athletic contest.

Class of 1981 Basketball Award. Established to promote excellence in the sport, this award is presented to that woman who best combines the attributes of skill, desire, leadership and coachability in order to help further the team's progress toward its goals. The award is a pewter bowl, and the athlete will have her name inscribed on a permanent plaque.

Class of 1925 Scholar Athlete Award. Presented in 1977 by the Class of 1925. Awarded annually to that senior woman athlete whose commitment and excellence in athletics and scholarship are an inspiration to the Williams community. The recipient will have her name inscribed on a permanent trophy and receive a replica for her possession. The selection committee consists of the Dean, the Chairman of the Faculty Committee on Athletics, coaches of two women's teams or clubs named by the Director of Athletics, a woman student, preferably a member of the Faculty Committee on Athletics, and the Director of Athletics.

Brian Dawe Award. Presented to Williams College by the 1977 men's crew to show their appreciation to Brian Dawe for his efforts in building a crew at Williams. To be awarded annually to that oarsman who, in the opinion of his coaches, best combines those qualities necessary to achieve excellence in rowing.

Dr. I.S. Dribben 1924 Award. Presented annually as a tribute to two Williams College golf coaches, Richard Baxter and Rudy Goff. Awarded on the basis of dedication, sportsmanship and perseverance.

Fox Memorial Soccer Trophy. In tribute to the inspiring qualities of leadership and integrity which distinguished Myles Fox 1940, Williams soccer captain, killed in action on Tulagi while serving with the United States Marine Corps. Each year there shall be inscribed on the trophy the name of the soccer player whose achievements of character and sportsmanship best typify those of the “Skipper.” The trophy was awarded anonymously by a Williams alumnus in 1953.
Prizes and Awards

Golf Trophy. Presented in 1952 on the fiftieth anniversary of the first Williams golf team by four members of that team; Richard H. Doughty 1903, Richard W. Northrup 1904, E. Donaldson Clapp 1904, and Edward A. Clapp 1906. On this trophy is inscribed the name of the winner of the annual college golf tournament, who also receives a smaller trophy for his permanent possession.

Willard E. Hoyt, Jr. Memorial Award. Presented by the Alpha Delta Phi Class of 1960 in memory of Willard E. Hoyt, Jr. 1923. Awarded annually to that senior male athlete whose spirit and superior efforts on behalf of Williams athletics have been combined with a genuine academic interest. The selection committee consists of the Dean, a varsity coach named each year by the Director of Athletics, the President of the Purple Key Society, the Chairman of the Faculty Committee on Athletics, and the Director of Athletics.

Nickels W. Huston Memorial Hockey Award. Established in 1984 by Ford Huston in memory of his brother, Nickels W. Huston 1950, and to be awarded annually to the first year player who contributes the most to the success of the hockey team.

Robert W. Johnston Memorial Trophy. Presented by the members of Delta Kappa Epsilon in memory of Robert Woodall Johnston 1949. Awarded annually to the most valuable varsity baseball player.

Bourne-Chaffee Lady Williams Tennis Award. Presented in 1978 by members and former members of the Williams Women's Tennis Team for the varsity player who best embodies the qualities of leadership, skill, spirit and sportmanship which exemplify the traditions of women's tennis at Williams College.

Men’s Lacrosse Award. Presented in 1959 by the Williams College Alumni Association of Maryland as a permanent trophy on which is inscribed each year the name of the outstanding men’s varsity lacrosse player.

Robert B. Muir Men’s Swimming Trophy. Presented in 1960 by Mr. and Mrs. George S. Dively, parents of Michael A. Dively 1961. Awarded annually to the outstanding male varsity swimmer on the basis of performance, leadership, and sportmanship.

Robert B. Muir Women’s Swimming Trophy. Presented in 1977 by Peggy and Sam Maples 1944, a former Williams College swimmer. Awarded annually to the outstanding woman varsity swimmer on the basis of performance, leadership, and sportswomanship.

Andrew D. C. Oliver Intramural Sports Award. Established in 1980 by the Class of 1976 in honor of Andy, who gave loyal and dedicated service to the Williams intramural program, which embodies the ideals of sports for all students regardless of athletic skill or ability.

Franklin F. Olmsted Memorial Award. Given in 1963 by Mrs. Franklin F. Olmsted in memory of her husband, 1914, who was a member of the first Williams cross country team. Awarded annually to a member of the men's cross country team on the basis of character, perseverance, and sportmanship.
Prizes and Awards

**Anthony Plansky Award.** Given in 1953 by George M. Steinbrenner, III 1952, and warded annually to the best varsity track athlete on the basis of performance, leadership, and sportsmanship.

**Leonard S. Prince Memorial Swimming Prize.** In memory of Leonard Sidney Prince 1914, donated by his father, S. S. Prince. Presented to the outstanding freshman or sophomore woman member of the swimming team who best exemplifies the qualities of leadership, performance, and sportswomanship.

**Purple Key Trophies.** Two trophies for the senior man and senior woman letter-winners who best exemplify leadership, team spirit, ability, and character. Chosen by the Director of Athletics, president of the Purple Key, two members of the Athletic Department, and one faculty member chosen by the Purple Key.

**Michael E. Rakov Memorial Award.** Presented in 1957 by the members of Alpha Delta Phi, to be awarded annually to the member of the varsity football team who, in the opinion of his coaches, is the most improved lineman, and who possesses superior qualities of leadership, aggressiveness, and determination.

**Paul B. Richardson Swimming Trophy.** Presented by Mr. Paul B. Richardson of Belmont, on which is recorded each year the name of the male swimmer or diver winning the greatest number of points in dual collegiate meets during the swimming season.

**Rockwood Tennis Cup Prize.** In memory of Lieutenant Richard Burton Rockwood 1916, who was killed in action in France, his mother, Mrs. R. L. Rockwood, has given a fund to provide a cup to be awarded annually to the winner of the singles in the fall tennis tournament.

**Charles Dewoody Salmon Award.** Presented in 1960 by his former teammates in memory of Captain Charles D. Salmon, USAF, former Little All-American guard and captain of the 1951 Williams College football team, killed in the service of his country. Awarded to that sophomore member of the varsity football squad who, in the opinion of the coaching staff, has made the most significant contribution to the varsity football team in his first year of eligibility. Presented by the team of 1951 in the sincere hope that it will serve to inspire the recipients in the years to follow to seek the same supreme qualities of performance and leadership which Chuck Salmon exemplified.

**Scribner Memorial Tennis Trophy.** Presented in 1954 by his friends in memory of Fredrick M. Scribner, Jr., 1949, killed in action in Korea on February 20, 1953, this trophy is awarded annually to the member of the men’s varsity tennis team who best combines sportsmanship, team spirit, and character.

**Edward S. Shaw 1962 Memorial Squash Award.** Awarded annually to that member of the Varsity Squash team who best exemplifies the ideals of sportsmanship, character and team spirit.

**Shulman Tennis Cup Prize.** Named after Thomas W. Shulman 1958 and to be awarded annually to that woman who is the winner of the singles championship in the Spring tennis tournament for Williams women.
Prizes and Awards

SQUASH RACQUETS PRIZES. Presented by the donors of the squash racquets building, Clark Williams, 1892, John P. Wilson 1900, and Quincy Brent 1901, as a permanent trophy to be competed for in an annual elimination tournament for students.

TEAM OF 1982 WOMEN’S VOLLEYBALL AWARD. To be presented to the player who combines excellence in performance, leadership and sportsmanship and who exhibits dedication to the sport of volleyball and team play.

OSWALD TOWER AWARD. A plaque in honor of the contribution of Oswald Tower 1907 to basketball, as editor of the Basketball Rules for forty-four years and as a basketball rules interpreter. Presented in 1960, by former Williams players, to the most valuable player of the men’s varsity in the opinion of the coaches and manager.

RALPH J. TOWNSEND SKI TROPHY. Presented in 1959 by former members of Williams skiing teams for the men’s varsity skier who best exhibits the qualities of sportsmanship, competition, and team spirit associated with Williams and skiing.

WILLIAMS ALUMNAE SKING AWARD. This pewter pitcher was donated in 1976 by Deborah Marshall 1974 and Carmany Heilman 1976, leaders of the first Williams Women’s Ski Team. This award recognizes the woman who best embodies the values of sportsmanship traditionally held by women skiers at Williams: leadership, competitiveness, and commitment to her team.

WILLIAMS WOMEN’S LACROSSE AWARD. The Women’s Lacrosse Award was established in 1977 by the women’s lacrosse team in order to promote excellence in the sport. It is to be awarded each year to the person who, in the opinion of the team, has demonstrated excellence in all levels of women’s lacrosse—sportsmanship, skill, and team spirit.

WILLIAMS WOMEN’S SQUASH AWARD. Established in 1980, for the most valuable player of the season as voted by the Squash Letter Award Winners.

YOUNG-JAY HOCKEY TROPHY. Presented by George C. Young 1938 and John C. Jay 1938. For a member of the Williams varsity hockey team notable for loyalty and devotion to the interests of Williams hockey: courage, self-control, and modesty; perseverance under discouraging circumstances; and a sense of fair play towards his teammates and his opponents.

Fellowships for Graduate Study

The Faculty Committee on Prizes and Graduate Fellowships examines candidates from the senior class for the graduate awards listed below. Application must be made at the Office of Financial Aid.

HORACE F. CLARK PRIZE FELLOWSHIPS. Established in 1894 under the provisions of the will of Madame Marie Louise Souberbeille in memory of her father, 1833. Two awards for one year of graduate study to members of the senior class chosen on the basis of superior scholarship, general ability, and interest in scholarly research.
Francis Sessions Hutchins Memorial Fellowship. Established in 1931 by friends of Mr. Francis Sessions Hutchins, 1900. To assist students in continuing and completing their college course and in obtaining a start in business or professions in the early years following their graduation, the selection to be made by the President. To be awarded to students, “situated as Hutchuins himself was when in college . . . but giving promise . . . of becoming, as he did, a useful, worthy, and lovable citizen.”

Hubbard Hutchinson Memorial Fellowship. Established in 1940 by Mrs. Eva W. Hutchinson in memory of her son, 1917. Awarded to a member or members of the graduating class who produce the most creative work in music composition, poetry, fiction, painting, sculpture, photography or choreography; then to those who show unusual talent and promise in performance; then to those majoring in philosophy or the sciences. The purpose of the award is to assist in continuing work in the special field of interest for a period of two years following graduation.

Charles Bridgen Lansing Fellowship in Latin and Greek. Established in 1929, by bequest of Mrs. Abby S. L. Selden in memory of her father, Charles Bridgen Lansing. Awarded either at the graduate or undergraduate level.

John Edmund Moody Fellowship. Established in 1927 by Mr. John Moody in memory of his son, 1921. To enable a graduate of Williams College to pursue studies at Oxford University for the two years following graduation. The recipient is chosen from those who have majored in Greek, Latin, English, history, political science, philosophy, religion, or economics. The basis of award is general intellectual ability as shown in the major field of study, with special reference to character, need of assistance, and promise of original and creative work.

Dr. Herchel Smith Fellowships. Established in 1979 by Dr. Herchel Smith to enable two graduates of Williams College to pursue studies at Emmanuel College, Cambridge for the two years following graduation. One recipient is chosen from those who have majored in the humanities or social sciences; the other from those who have majored in mathematics or the natural sciences. One set of criteria includes general intellectual ability and attainment in the major field of study with special reference to the promise of original and creative work, and character; the other set of criteria includes leadership, scholastic attainment and physical vigor after the manner of selection of Rhodes scholars.

Stephen H. Tyng and Stephen H. Tyng, Jr. Foundation Fellowship. Holders of Tyng Scholarships in their undergraduate years are eligible for Tyng Fellowships for a maximum of three years of graduate study in any field of learning at any recognized university.

Carroll A. Wilson Fellowship Fund in Memory of John E. Wilson. Established in 1949 by the will of Carroll A. Wilson 1907 in memory of his son, who was killed in the World War II crossing of the Rhine, March 28, 1945. The income to be devoted to scholarships for attendance at Oxford University, for members of the senior class chosen “after the manner of Rhodes Scholarships, with special attention to leadership, scholastic attainment, and physical vigor.”
Prizes and Awards

George J. Mead Fund

In 1951 Williams College received a substantial gift from the Estate of George J. Mead. Mr. Mead expressed in his will an intention “that this gift shall be used to improve the quality of leadership and service in all branches of government, whether Federal, State or municipal, by encouraging young people of reliability, good sense and high purpose to enter with adequate preparation those fields of politics and constitutional government upon which must rest the future of this nation.”

A portion of this gift constitutes a Revolving Fund that directly assists promising students with inadequate means who are majoring in political science, history, or economics. The remaining portion, or Special Fund, is intended “to stimulate all students at Williams College in the fields of Government, history and economics in their best possible efforts through suitable prizes, talks by authorities in their chosen field, and in such other ways as the committee may deem best calculated to accomplish that purpose.”

The Special Fund finances campus visits by persons prominent in government, State or municipal work. These visits have taken the form of public lectures as well as seminar or conference meetings with students majoring in the fields of political science, history, or economics.

A summer intern program in government involving selected sophomores and juniors is the most extensive undertaking of the Mead Fund.

Williams-In-Hong Kong

Begun in 1961, Williams-in-Hong Kong is a program whereby one Williams graduate teaches English for two years at United College, part of Chinese University, in Hong Kong. Students are chosen by a selection committee, chaired by Professor Eusden. Interested students should apply in late November.

Exchange Program for Graduates in France and Spain

Each year the Department chooses two students to participate in a special exchange program with the Ecole Normale Supérieure de Jeunes Filles and the University of Granada. The Williams students chosen spend the year following graduation teaching English at the aforenamed institutions in France and Spain. Interested students must apply to the Department early in second semester.
COURSES OF INSTRUCTION 1985-86

PLEASE NOTE:
The Courses of Instruction booklet (which was issued in the spring) is not to be used at this time because this Bulletin (Catalog) contains updated material for regular courses as well as the Winter Study listing.

COURSE NUMBERING SYSTEM

Courses in the 100 series are open regularly to qualified members of all classes.

Courses in the 200 series are open regularly only to qualified sophomores, juniors and seniors.

Courses in the 300 series are open regularly only to qualified juniors and seniors.

Courses in the 400 series are open regularly only to qualified seniors and graduate students.

Courses in the 500 series are open regularly only to graduate students except in some circumstances when senior Art majors are permitted to take a 500 level course.

Within a given series, numbers do not indicate the relative level of courses.

Courses designated by a single number are semester courses.

Odd numbers (or even numbers followed by an F) designate courses offered during the first semester. Even numbers (or odd numbers followed by an S) designate courses offered during the second semester.

Year courses are designated by an odd number and an even number joined by a hyphen; the work of the two semesters constitutes an integral, indivisible course. Students who register for a year course are required to do both semesters of that course within the same year.

ORDER OF COURSE ELECTION

The order in which courses may be elected is determined by the prerequisites stated under the course description. The classes to which courses are regularly open are indicated by the course number. Exceptions to the order indicated may be made for students of high scholastic ability on petition to the Committee on Academic Standing or as stated in course descriptions (Open to freshmen, etc.).

SEQUENCE COURSES

This term, found in the description of major programs, refers to the courses taken in a sequence prescribed by the major and culminating in the senior major course.

PARALLEL COURSES

This term, found in the description of major programs, refers to the courses prescribed by the major program in addition to the sequence courses. A choice among possible alternatives is offered in many major programs.

Any course in which registration is deemed insufficient may be withdrawn at the beginning of either semester without previous notice.

Courses enclosed in brackets will not be offered 1985-86.

Those courses in listings followed by "Deleted 1985-86" have been taken out in this catalog.

REGISTRATION REMINDERS:
1. Freshmen may take no more than one course in a department each semester.
2a. Sophomores may take no more than two courses in a given department in the same semester and no more than three courses in a department during the full year.
   b. A student may take no more than a total of five courses in any one department during the freshman and sophomore years.
c. Any exception to the above may be requested by a petition (goldenrod) to the Committee on Academic Standing filed at the time of registration.

3. A senior may change or add a major only upon the approval by the department chairman and by the C.A.S. of a petition stating the courses to be counted toward that major.

4. Double majors must submit a petition to the C.A.S. with their registration for approval to undertake two majors.

5. Independent Study—a petition to the C.A.S. must be submitted at the time one registers for the course for presentation to the Committee before the end of the semester preceding the semester in which the independent study is to be taken.

6. Unless otherwise stated in course descriptions or departmental notes, students may not register for courses for which they are not qualified as outlined in the Course Numbering System.

7. Petition forms for any of the above requests may be obtained from the Registrar's Office.

8. Do not register for courses by descriptive title. Please indicate courses by department and number.

9. When choosing a course listed in more than one department, students should specify which department designation they wish to have recorded—at the time they register for that course.

SCHEDULING OF CLASS HOURS

Except as otherwise noted, courses meet three times each week in fifty minute periods or twice a week in seventy-five minute periods as follows:

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<td>3:00 p.m. W only</td>
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<th>Seventy-five minute periods</th>
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<tr>
<td>W</td>
<td>1:00-4:00 p.m. W only</td>
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WINTER STUDY PROGRAM

All students are required to complete a Winter Study Project in each of the four years. Freshmen must select a course from among the Freshman Seminars; sophomores, juniors and seniors must select a course from the other offerings; seniors are encouraged to select a course from within their major or program of concentration.

** ** ** *

THE FOLLOWING SYMBOLS ARE USED TO INDICATE FACULTY LEAVES IN THE MASTHEAD OF EACH DEPARTMENT:

*On leave 1985-86

**On leave first semester 1985-86

***On leave second semester 1985-86

†On sabbatical leave 1985-86

††On sabbatical leave first semester 1985-86

†††On sabbatical leave second semester 1985-86

§First semester 1985-86

§§Second semester 1985-86

§§§WSP 1985-86
AFRICAN AND MIDDLE EASTERN STUDIES (Div. I & II)

Chair, Associate Professor THOMAS SPEAR

Advisory Committee: Professors: BAKER, P. CLARK. Associate Professor: T. SPEAR. Assistant Professors: ABU-LUGHOD, DARROW, LEVY, MACDONALD J. WEGNER. Part-time Lecturer: GRUDIN.

African and Middle Eastern Studies is an interdisciplinary program focusing on the politics, societies, cultures and historical development of the peoples of Africa and the Middle East. The program offers a wide range of courses in the area, as well as opportunities to study abroad and possibilities for graduate fellowships and careers.

Students considering completing the program are urged to register with the Chairman of the program during their sophomore year. Normally, students will be expected to take six courses from at least three different departments. One of these courses should be from among the "Concepts Courses" listed below. Four should be from the "Core Courses" electives. The sixth course will be the African and Middle Eastern Studies 401 "Capstone Course". In special cases the Chairman may permit substitution of an approved Winter Study Project, or work completed elsewhere, for one or more of the electives. Proposals for Honors Work in African and Middle Eastern Studies, normally involving at least one semester thesis and an oral examination, must be submitted in writing by the beginning of the senior year and approved by the African and Middle Eastern Studies Committee.

Fulfillment of the requirements of the program will be recorded on the student's official transcript.

Concepts Courses

All students are required to take at least one of the following courses, preferably near the beginning of their program.

- Anthropology 101 The Scope of Anthropology
- Anthropology 204 Economic Anthropology
- Anthropology 209 Human Ecology
- Anthropology 314 Theory and Method in Anthropology
- Anthropology 316 The Self in Culture and Society
- Economics 204 Economic Development
- Economics 364 The Economics of Development
- History 108 The World and the West: The Making of the Modern Third World
- Political Science 104 Comparative Politics: Power, Legitimacy and Change in the Modern World

Core Courses

All students are expected to take four of the following. Note that students are normally expected to present courses from at least three different disciplines to complete the program, and that in special cases credit can be given for a WSP or work done elsewhere.

- Anthropology 203 Text, Context and Performance
- Anthropology 222 Women in Cross-Cultural Perspective
- Anthropology 224 Anthropology of the Middle East
- Art 235 Islam and Byzantium
- Art 236 Early Medieval Art
- Art 286 African Art
- Critical Languages 201-202 (Arabic, Hebrew or Swahili)
- Economics 212 Political Economy of South Africa
- Economics 227 Economics of the Middle East
- History/Religion 217 Introduction to Islamic Civilization
- History 219 African History to 1900
- History 220 Modern Africa
- History 331 Southern Africa: Race, Class and Ethnicity in the Modern World
- History 339/Religion 227 Religion and Revolution in Iran
African and Middle Eastern Studies, Afro-American Studies

History 363/African and Middle Eastern Studies 401/Religion 225  Resurgent Islam
History 367  Contemporary Africa
Political Science 343  Settler Colonialism: Problems and Conflicts
Political Science 347  Domestic Politics of the Middle East
Political Science 402  Seminar in International Relations (Baker)
Religion 213  Judaism and Islam
Religion 231  Introduction to Judaism
Religion 232  Modern Jewish Thought
Religion 233  The Sufi Way
Religion 235  Women in Patriarchy: The Jewish Experience

AMES 401  Topics in African and Middle Eastern Studies: Resurgent Islam (Same as History 363 and Religion 225)

The “Capstone Course” for all concentrators, this course provides students with the opportunity to consolidate their work in the area through study and research of a select topic. Topics vary from year to year, but generally alternate between the Middle East and Africa. Thus students whose primary interest lies in one of the two subareas should plan to take 401 the year the topic falls in their subarea. For 1985-86, the topic is “Resurgent Islam”, the same as Religion 225 and History 363 (See under Religion 225 for a full course description). For 1986-87 it will be “Contemporary Africa”, the same as History 367 (See under History for a full course description).

Hour

AMES 493-W31, W31-494  Senior Thesis

To be taken by candidates for honors by the thesis route in African and Middle Eastern Studies.

AFRO-AMERICAN STUDIES (Div. I & II)

Chair, Assistant Professor DAVID L. SMITH

Advisory Committee: Professors: DEW, LEWIS. Associate Professor: T. SPEAR. Assistant Professors: MARKS, D.L. SMITH. Visiting Assistant Professors: HILDEBRAND, KNIGHT. Lecturer: IFILL. Part-time lecturer: GRUDIN.

The aim of the program of Afro-American Studies is to make it possible for students to consolidate some of their course elections in the social sciences and humanities in such a way as to focus in a coherent fashion on the history, culture and social life of Africans and their descendants in the Western Hemisphere.

All students enrolled as concentrators in the Afro-American Studies program are expected to complete five courses from the following, including a culminating senior seminar:

One course in Afro-American History:
Economics 218  Black Americans and Economics
English 220  Introduction to Afro-American Writing
History 263  Introduction to Afro-American History
Psychology 341  Race Relations
Sociology 305  The Afro-American: A Sociological Perspective

One course in an African subject:
African and Middle Eastern Studies 401/History 363/Religion 225  Resurgent Islam
Art 286  African Art
Economics 212  Political Economy of South Africa
History 219  African History to 1900
History 220  Modern Africa
History 331  Southern Africa: Race, Class and Ethnicity in the Modern World
Political Science 245  African Politics (Deleted 1985-86.)
Afro-American Studies

Two courses from either of those listed above or the following:
- Economics 216 Urban Economics
- Economics 372 Urban Economics
- English 346 Southern Fiction/Southern Fictions
- English 355 Baldwin, Baraka, Reed
- History 108 The World and the West: The Making of the Modern Third World
- History 311 History of the Old South
- History 312 History of the New South
- History 315 The Civil Rights Movement
- History 351/Religion 331 [also formerly Afro-American Studies 401] The Black Church in the United States and Africa: Comparative Perspective (Deleted 1985-86.)
- History 360/Afro-American Studies 401 Civil War and Reconstruction
- Political Science 332 Third World Political Theory: Perspectives on Race, Colonialism and National Liberation Struggles in the Twentieth Century (Deleted 1985-86.)
- Sociology 107 Seminar: Sociology of the Family (Deleted 1985-86.)
- Sociology 206 Comparative Race and Ethnic Relations
- Sociology 211 Community and Society
- Sociology 385 Seminar: The New Underclass in America

And the culminating senior seminar:
- Afro-American Studies 401/History 360 Civil War and Reconstruction

HONORS PROGRAM IN AFRO-AMERICAN STUDIES

Candidates for honors in Afro-American Studies have the opportunity, through clustering courses and independent study, to focus more coherently and narrowly on a well-defined substantive topic or issue.

In addition to the courses required for concentration, students who are candidates for honors must:
1. Choose a problem or topic directly concerned with some aspect of the life and experiences of Africans or Afro-Americans.
2. Take one additional elective course and one Winter Study (W30) and Senior Project (491 or 492), which are related to their chosen topic or problem.

Students wishing to be considered as candidates for honors should, upon completion of core course requirements, contact the Chairman of the program, indicating in writing their intention to be candidates and their proposed course of study. At that time the student will choose a faculty adviser; together, the student, the adviser and the program Chairman will determine appropriate means of presenting and evaluating the student's work (for example, a substantive paper, an oral presentation, etc.).

Upon completion of the student's work, the faculty teaching in the program along with the student's faculty adviser will determine whether he or she should be recommended for the honors degree. Recommendation for the degree with honors in Afro-American Studies will be made on the basis of demonstrated imagination, independence, initiative and superior performance.

Recommended Elective Courses
- Economics 371 Economic Justice
- Philosophy 215 Philosophy of Law
- Political Science 219 Constitutional Law
- Political Science 318 Civil Liberties in the United States

AAS 401 Civil War and Reconstruction (Same as History 360F)
(See under History for full description.)

AAS 491-W30, W30-492 Senior Project
To be taken by candidates for honors in Afro-American Studies.
Afro-American Studies, American Maritime Studies

THE AFRO-AMERICAN STUDIES CONCENTRATION AND THE AMERICAN STUDIES MAJOR
Several courses in Afro-American Studies count for credit in the American Studies major. Therefore, students in American Studies can easily complete requirements for an Afro-American Studies concentration by electing one course in an African subject and by taking Afro-American Studies 401. Another three courses must be chosen which satisfy both American Studies and Afro-American Studies requirements.

AMERICAN MARITIME STUDIES

Director, Benjamin W. Labaree
Assistant Director, James T. Carlton

Staff: James T. Carlton (Mystic Seaport and Williams College); George R. Creeger (Wesleyan University); Don C. Gifford (Mystic Seaport and Williams College); Benjamin W. Labaree (Mystic Seaport and Williams College).

Williams College sponsors a one-semester program in American Maritime Studies in cooperation with Mystic Seaport, Mystic, Connecticut, where the courses are taught. Students enroll for either the fall or the spring semester and take four of five courses offered. They live in cooperative houses owned by the Seaport. Students interested in applying may obtain further information through the Dean's Office. Application deadline for either semester is the first of February of the preceding academic year.

AMS 201 (F, S) American Maritime History
The history of America's relationship to the sea from the age of discovery through the heyday of merchant sail to the triumph of steam. Shipbuilding, whaling, the fisheries, coastal commerce and the relationship between trade and foreign policy are among the special topics studied. Lectures and discussions.

Labaree

AMS 211 (F, S) Oceanography
An introduction to the physical, chemical, geological and biological processes that control the major features of the ocean. Topics include ocean circulation, plate tectonics, shoreline processes, biological productivity and marine ecosystems. Lectures and laboratories, including coastal and on-the-water field trips and a field research project.

Carlton

AMS 221 (F, S) Marine Ecology
An introduction to nearshore and oceanic estuarine and marine populations, communities and ecosystems. Topics covered include trophic systems, plankton dynamics, biogeography, the structure of ocean ecosystems and marine pollution. Lectures and laboratories, including coastal and on-the-water field trips and a field research project.

Carlton

AMS 231 (F, S) Literature of the Sea
A study of the ways in which the sea has impinged upon the literary imagination and found expression in narrative, poetry, drama and myth. Special emphasis given to such American authors as Poe, Melville, Whitman, Slocum, London, O'Neill and Hemingway; also included are Coleridge and Conrad.

First semester: Creeger
Second semester: Gifford
American Maritime Studies, American Studies

AMS 301(F,S) Marine Policy
A seminar studying some of the principal ways in which man uses the sea and the
policy questions that arise therefrom. Fisheries, aquaculture, shipping, oil-drilling and
recreation are among the activities examined. Problems relating to admiralty law, coastal
zone management and the law of the sea are also considered. Guest lecturers, discus­
sions, field trips and a research paper.

AMERICAN STUDIES (Div. II)
Chair, Professor Michael D. Bell

Advisory Committee: Professors: M. Bell. Associate Professor: Jackall. Assistant Profes­
sors: Gibian, Limon, Tracy.

FRESHMEN AND SOPHOMORES
Freshmen and sophomores interested in American Studies are encouraged to take any
of the courses listed under “ELECTIVES” below. Also, American Studies 201 is open to
sophomores and to freshmen with Advanced Placement credit in American History—as
are all 300 level American Studies courses.

Normally, students entering the major have taken at least two elective or required
major courses. Such courses may be counted for credit in the major.

NON-MAJORS
American Studies 201 and all 300 level American Studies courses are open to non­
majors. American Studies 401 is open only to senior majors and to senior non-majors
with permission of the instructor. American Studies 402 is open only to senior majors.

MAJOR PROGRAM
The major in American Studies is designed to provide students with the opportunity
to develop an understanding of American culture systematically and in depth. The core
of the major is a group of three interdisciplinary required courses (201, 401 and 402)
plus a set of 300 level American Studies courses of which each student must take at least
one. American Studies 201 provides an introduction to certain dominant themes in
American cultural history. The 300 level American Studies courses approach American
culture from the perspectives of particular topics and combinations of disciplines. In
the fall semester of the senior year, in American Studies 401, majors study American
culture in a specific period (for 1985-86 the period is 1960 to 1974). Also in the fall of the
senior year majors meet in the senior colloquium to plan independent projects, which
will be undertaken and completed in American Studies 402.

In addition to the four required American Studies courses, majors will choose a mini­
imum of seven courses from those listed under “ELECTIVES” below. Some students may
wish to develop individual programs of electives around a particular theme or interest
(the arts, technology or environmental issues, for example). For those interested in a
more general approach, the choice of electives should be determined by the following
guidelines: 1) two or more courses from group A (below), one dealing primarily with the
period before 1900; 2) two or more courses from group B, one dealing primarily with the
period before 1900; 3) at least one course each from groups C and D.

Advanced Placement credit in appropriate areas may be used to satisfy elective require­
ments in the major.
American Studies

SUMMARY OF MAJOR REQUIREMENTS

Required Major Courses
American Studies 201*
At least one 300 level American Studies course** (If more than one of these is taken, the additional course or courses may be used to satisfy elective requirements in the major.)
American Studies 401
American Studies 402

Elective Courses
A total of seven courses chosen from groups A, B, C and D below.

*Members of the Class of 1986 who have taken American Studies 301 will substitute it for American Studies 201.
**Members of the Class of 1986 who have taken American Studies 302 may substitute it for the required 300 level American Studies course.

THE DEGREE WITH HONORS IN AMERICAN STUDIES

A student wishing to be a candidate for honors in American Studies will undertake a substantial independent project (either American Studies 491-W30 or W30-American Studies 492) during senior year. This project will be completed in close conjunction with American Studies 402, since the honors project will constitute the student’s independent work for 402. It is expected, however, that honors projects will be significantly more extensive than regular 402 projects. Grades for students taking American Studies 491-W30 will be deferred until their projects are completed in the second semester. The awarding of honors will be decided by the Program Advisory Committee, on the recommendation of the student’s project adviser and two other faculty readers.

 Majors considering the honors route are urged to consult as early as possible with the Program Director of Honors. (For the 1985-86 academic year the Director is Michael Bell.) Permission to pursue honors will be contingent upon performance in courses in the major and the recommendation of a faculty member willing to serve as the student’s project adviser.

AMERICAN STUDIES AND OTHER PROGRAMS

It is usually quite possible to design an American Studies major in coordination with other programs offered by the College. For instance many courses taken for credit in the Afro-American, Women’s and Environmental Studies programs count for credit as electives in American Studies.

STUDY AWAY FROM WILLIAMS

A major in American Studies can also be combined with study away from Williams. When appropriate, courses taken in such programs can be used to satisfy elective requirements in the major.

 Students thinking of spending the first semester or all of junior year away should definitely plan to have taken American Studies 201 before the end of sophomore year. Those planning to be away the first semester of senior year may take American Studies 401 as juniors.

 Interested students should consult with the Chairman of the program as early as possible.

AMERICAN STUDIES COURSES

AMST 201 American Lives
"Individualism" is one of the hallmarks of American culture; yet we can also observe how eagerly Americans join organizations of all kinds and how often Americans are found grouped together under categorical labels of class, gender, race, ethnic group or regional origin. To introduce students to the study of American culture, the course will
focus on the constantly changing relation between individual Americans and their communities—communities of family, work, religion and politics—from the colonial period through the recent past. Among the materials to be used: autobiographies (including those of Benjamin Franklin, Jane Addams and Martin Luther King), studies of past and present American communities (involving field trips to places like Deerfield, Hancock Shaker Village and selected sites in Williamstown) and films. Class discussion and frequent short papers will seek to develop students' skills of analysis and expression. 

Open to freshmen with Advanced Placement credit in American History.

Limon, Tracy

AMST 308 Women and the Family in Modern America (Same as History 308)
An investigation of the changing structures and functions of families in America from the early nineteenth century to the present, with particular emphasis on the evolution of attitudes toward children and the roles of women within the family and in the "public" world of work and politics. The analysis will focus on the ways that regional, class, ethnic, religious and racial differences among families have influenced variations in a) ideas about the "proper" roles of women and families, and b) patterns of behavior. We will also analyze significant historical movements (the shift from a rural to an urban society, immigration, mobilization for war, the civil rights and women's rights movements) from the perspective of gender differences and family life—and search for new ways to discuss and periodize important historical changes.

Reading and discussion course. Students will write two short essays and a longer research paper on topics of their choice.

Open to sophomores and also to freshmen with Advanced Placement credit in American History.

Limon, Tracy

[AMST 310 Family and Community in Early America (Same as History 310) (Not offered 1985-86.)]
(See under History for full description.)

[AMST 313(S) The Rise of American Business (Same as History 313) (Not offered 1985-86.)]
(See under History for full description.)

AMST 314 The Making and Meaning of Popular Culture (Same as Sociology 214)
An examination of the production and symbolic significances of popular culture. After surveying European backgrounds—popular cultural forms in medieval society, the emergence of middle class culture with the bourgeois transformations of the old order, the commercialization of leisure in the eighteenth century—the course will turn to American popular culture. Topics will include: the transformation of American culture with the triumph of industrial capitalism; elites, cultural communities, and the dissemination of cultural forms; the occupational communities that manufacture mass culture; and the meanings of the heroes, myths, fads and icons of American popular culture. Special attention will be paid throughout the course to the institutional, community and occupational milieux in which culture, both high and low, is generated, from coffee houses, salons, bohemias, cafes and cabarets to Hollywood movie lots and Madison Avenue offices.

No prerequisite.

Hour

Jackall

[AMST 319(S) Technology and American Culture, 1893 to the Present (Same as History 319) (Not offered 1985-86.)]
(See under History for full description.)
American Studies

AMST 341 (formerly 358F)  Literary Vocation and Social Identity in America (Same as English 341)
A consideration of literary artists as a distinct subculture in American society, at once “deviant” and “elite”, torn between the values of their calling and the mores of the dominant culture. Particular attention will be paid to the changing social and psychological meanings of literary vocation in America. Readings will be drawn from works of literature, letters, memoirs and biographies, as well as from works of psychology, sociology and intellectual and literary history. Authors will include Irving, Stowe, Howells, Chopin, Hemingway and Wright. In addition, each student will write a substantial term paper applying the methods of the course to a writer of his or her own choosing.
Open to sophomores and also to freshmen with Advanced Placement credit in English and/or American History.
Hour
M. Bell

AMST 397, 398  Independent Study

AMST 401  From Camelot to Watergate: American Culture in Crisis
An investigation of the prolonged crisis of legitimacy in America from the election of John F. Kennedy to the resignation of Richard M. Nixon in 1974. The course will analyze the cultural roots and consequences of the many “revolutions” of the 1960’s—most notably in civil rights, war resistance and the “counter culture.” We will also ask whether we should regard developments of the early 1970’s—the reaction to the killings at Kent State and the actions of the legislative and judicial branches during the Watergate Crisis—as a rejection or as a perpetuation of the trends of the 1960’s. Assignments will draw on a wide variety of materials: political documents, journalism, autobiography, sociology, fiction, popular music, film documentary and popular narrative film.
(Senior majors taking 401 will also participate in the major colloquium, during which they will choose and plan research projects to be undertaken in 402 in the spring.)
Enrollment limited. Open only to senior majors and to senior non-majors with the permission of the instructor.
Hours
M. Bell, Gibian

AMST 402  Senior Projects in American Studies
During the spring term, senior majors will undertake and complete the independent projects chosen in the fall colloquium. In these projects students will draw on their particular interests (for instance in history, politics, art, literature, sociology or popular culture) in order to integrate methods and insights previously developed in the major. (For seniors pursuing honors the senior project will be the honors project. See “The Degree with Honors in American Studies,” above.) In class meetings students will be encouraged to share the fruits of individual inquiry. The final weeks of the semester will be devoted to the reading and discussion of completed projects by the class as a whole.
Open only to senior majors.
Hour
Tracy and Staff

AMST 491-W30  Senior Honors Project

AMST W30-492  Senior Honors Project

ELECTIVES
Seven courses chosen from electives listed below, with regard for general distribution guidelines.
A. Afro-American Studies 401/History 360F  Civil War and Reconstruction
American Maritime 201  American Maritime History
History 103  The Emergence of Modern America
History 210  Colonial and Revolutionary America: 1607-1780
American Studies

History 211 The New American Nation: Politics and Culture from 1800 through Reconstruction
History 214 Modern America: 1929 to the Present
History 224 Women in Western Culture
History 261 Afro-American History through the Civil War (Deleted 1985-86.)
History 262 Afro-American History: Reconstruction to Present (Deleted 1985-86.)
History 303 American Labor History
History/American Studies 308 Women and The Family in Modern America
History/American Studies 310 Family and Community in Early America
History 311 History of the Old South
History/American Studies 313 The Rise of American Business
History 315 The Civil Rights Movement
History/American Studies 317 Women, Womanhood and Reform: The Nineteenth Century American Experience (Deleted 1985-86.)
History 318 America in the Thirties
History/American Studies 319 Technology and American Culture, 1893 to the Present
History 322 (formerly 222) Vietnam
History 330 American Intelligence: An Historical Approach to the CIA
History 334 The Diplomacy of the United States as a World Power, 1900 to the Present
History 335 Early American Diplomacy: Nationalism and Expansionism, 1775-1900
History 336 The American West Since 1848
History 349 Post-War America, 1945 to the Present
History 355 (formerly 345) Man and Nature in America
History 357 The Diplomacy of the Cold War, 1945-1963
History 362 The American Revolution
History 371 China and America: Cooperation and Conflict in Modern Times
History 377 Creating the Past: The Historic Preservation Movement in the United States

History 378 Reconstructing American Literature: Women and Nineteenth Century American Fiction (Deleted 1985-86.)

B. American Maritime 231 Literature of the Sea
English 207 Literature of the American Renaissance (Deleted 1985-86.)
English 208 Introduction to American Literature
English 210 Realism and Naturalism in American Fiction (Deleted 1985-86.)
English 219 Literature by Women
English 220 Introduction to Afro-American Writing
English 338 Literature of the American Renaissance
English/American Studies 341 (formerly 358F) Literary Vocation and Social Identity in America
English/History of Science 342 American Literature and the History of Science
English 344 Imagining American Jews
English 346 Southern Fiction/Southern Fictions
English 348 The Roots of American Humor
English 351 Walt Whitman, Emily Dickinson and their Contemporaries
English 354 Contemporary American Poetry
English 356 Hughes, Hurston, Wright
English 357 American Fiction since World War I
English 358 Experimental American Fiction of the 1960's
English 378 Reconstructing American Literature: Women and Nineteenth Century American Fiction (Deleted 1985-86.)

C. Art 201 American Landscapes
Art/Environmental Studies 202 North American Cities
Art 204 Portraits of Cities
Art 261 American Art, 1600-1860
Art 262 American Art, 1860 to 1940
Art 271 American Art, 1940-1985
Art 272 Twentieth Century Architecture
Art 277 History of Photography (Deleted 1985-86.)
American Studies

Art/Environmental Studies 303 Countryside Planning
Art/Environmental Studies 304 American Transport History
Art/Environmental Studies 326 Environmental Design
Environmental Studies/Religion 224 Nuclear War: History, Ethics and the Environment
History of Science 224 Scientific Origins of the Modern World View (Deleted 1985-86.)
History of Science 305 Technology and Culture
Music 114 American Music
Music 122 Afro-American Music

D. Anthropology 203 Text, Context and Performance
Anthropology/Japanese 206 Language and Culture
Anthropology 207 North American Indians
Economics 203 Women, Family and Economics
Economics 205 Public Finance
Economics/Environmental Studies 207 New England Research Seminar (Deleted 1985-86.)
Economics 208 Modern Corporate Industry
Economics 209 Labor Economics
Economics/Environmental Studies 210 U.S. and World Agriculture
Economics 216 Urban Economics
Economics 217 Environmental and Resource Economics
Economics 218 Black Americans and Economics
Economics 220 U.S. Economic History
Economics 357 U.S. Economic History
Economics 362 Multinational Corporations
Economics 365 Economics of the Family (Deleted 1985-86.)
Economics 366 Natural Resource and Environmental Economics
Economics 372 Urban Economics
Economics 375 Economic Demography
Economics 378 Industrial Organization
Economics 380 Economic Regulation
Environmental Studies 302 Environmental Planning
Environmental Studies/Political Science 317 Environmental Law
Environmental Studies 341 Land Use Controls
Environmental Studies 397, 398 Independent Study of Environmental Problems
Environmental Studies 403 The Environment, the Individual and Society
Political Science 211/Psychology 243 (formerly 209S) Public Opinion and Political Behavior
Political Science 214 Congress: Representation, Re-election and Policy
Political Science 215 (formerly 216) American Parties and Elections
Political Science 217 State Politics and Policies (Deleted 1985-86.)
Political Science 218 Presidential Power
Political Science 219 Constitutional Law
Political Science 221 Issues in U.S. Foreign Policy
Political Science 226 Origins and Consequences of Nuclear War
Political Science 227 American and Soviet Nuclear Strategy and Policy
Political Science 311 The Politics of Sex Roles: Men and Political Behavior
Political Science 315 (formerly 411) American Political and Intellectual Leadership
Political Science 314 Mass Media in American Politics
Political Science 316 The Politics of U.S. Foreign Policy Making
Political Science 316/Political Economy 302 Public Policy Making in the U.S. (Deleted 1985-86.)
Political Science 318 Civil Liberties in the United States
Political Science 338 American Legal Philosophy
Psychology 337 (formerly 354) Childhood Disorders and Therapy
Psychology 341 Race Relations

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American Studies, Anthropology

Religion/Environmental Studies 224 Nuclear War: History, Ethics and the Environment
Religion 237 The American Puritan Tradition
Sociology 105 Seminar: American Society in Comparative Perspective (Deleted 1985-86)
Sociology 203 Social Inequality
Sociology 205 (formerly 106F) The Family in Literature and Society
Sociology 206 Comparative Race and Ethnic Relations
Sociology 207 Sociology of Education
Sociology 209 Sociology of Deviance
Sociology 211 Community and Society
Sociology 214/American Studies 314 The Making and Meaning of Popular Culture
Sociology 218 Seminar: America and Japan, A Sociological Comparison
Sociology 302 Social Theory in Conflict (Deleted 1985-86)
Sociology 304 Business, Bureaucracy and Society
Sociology 305 The Afro-American: A Sociological Perspective
Sociology 306 (formerly 201S) Conflict, Crisis and Change in Western Social Thought
Sociology 310 Sociology of Work and Occupations
Sociology 385 Seminar: The New Underclass in America
Sociology 450 Nonviolence and Social Change

ANTHROPOLOGY (Div. I & II)
Department of Anthropology and Sociology
Departmental Staff for 1985-86

Chair, Associate Professor ROBERT JACKALL

Assistant Professors: ABU-LUGHOD, M. F. BROWN. Visiting BERNHARD Professor: JORDEN.

MAJOR PROGRAM

Anthropology explores the full range of human experience through the study of the economic activities, social organization, forms of expression and thought systems of the world’s peoples. Anthropology courses introduce students to tribal and peasant societies, especially those on the periphery of the West, as well as to the cultural complexities of stratified, industrial societies such as our own. Integrated with the study of specific peoples is the investigation of the ways in which anthropologists interpret beliefs and behavior. In keeping with the humanistic tradition of Williams, the course offerings stress sociocultural anthropology—that is, the comparative study of human social life and institutions.

Freshmen interested in Anthropology are strongly encouraged to take Anthropology 101, although several other Anthropology courses are also open to freshmen.

The Anthropology major offers students broad training in anthropological theory and methodology while familiarizing them with major world culture areas. Majors develop a coherent, individualized sequence of courses leading to the degree in Anthropology. This proposed course sequence is then reviewed by the departmental adviser before approval is granted. Courses will be chosen from Anthropology offerings and from a list of approved courses in other departments.

Requirements

For the degree in Anthropology, students must complete a minimum of nine courses drawn from three categories:

1. Core courses. Majors must take a sequence of three core courses:
   - Anthropology 101 The Scope of Anthropology
   - Anthropology 314 Theory and Method in Anthropology
   - Anthropology 401 Issues in Sociocultural Anthropology: The Meaning of Ethnography

2. Elective courses. Majors must take five additional courses, with the following restrictions:
   - At least three courses must be upper-division courses (numbered 300 or above).
   - At least two of the upper-division courses must be taken in anthropology.

3. Free electives. Majors must complete the remaining credit requirement by taking courses in anthropology or other disciplines.

The sequence of courses chosen by each major should be approved by the departmental adviser before approval is granted. Courses will be chosen from Anthropology offerings and from a list of approved courses in other departments.

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Anthropology

(2) Ethnographic Area Courses. Majors must take two courses from the list below, one of which must be in Anthropology:

- Anthropology 207 North American Indians
- Anthropology 216 Native Peoples of Latin America
- Anthropology 224 Anthropology of the Middle East
- History 201 China to 1800
- History 202 Modern China
- History 219 African History to 1900
- History 220 Modern Africa
- History 226 Latin American History
- History 253 Modern Japan

(3) Topics in Social and Cultural Analysis. In close consultation with their departmental adviser, majors will choose four courses from the list below, two of which must be from the Anthropology listings. Two of these four courses must be at the 300 level, one of these being in Anthropology. (With prior approval, other appropriate courses not included on this list may be used to satisfy the requirement.)

- Anthropology 203 Text, Context and Performance
- Anthropology 204 Economic Anthropology
- Anthropology/Japanese 206 Language and Culture
- Anthropology 209 Human Ecology
- Anthropology 222 Women in Cross-Cultural Perspective
- Anthropology 316 The Self in Culture and Society
- Anthropology 320 (formerly 220) Medical Anthropology
- Art 235 Islam and Byzantium
- Art 286 African Art
- Biology 333 Sociobiology
- Classics/Art 203 The Ancient City
- Economics 204 Economic Development
- History 108 The World and the West: The Making of the Modern Third World
- History/Religion 217 Introduction to Islamic Civilization
- History 331 Southern Africa: Race, Class and Ethnicity in the Modern World
- History 332 Class, Gender and Community in China 1680-1980
- History 339/Religion 227 Religion and Revolution in Iran
- History 364 Social Change in China
- History 367 Contemporary Africa
- Music 125 Musical Cultures of the World
- Political Science 104 Comparative Politics: Power, Legitimacy and Change in the Modern World
- Political Science 249 Latin American Politics
- Psychology 242 Social Psychology
- Religion 210 Fairy Tale, Legend, Myth
- Religion 225/African and Middle Eastern Studies 401/History 363 Resurgent Islam
- Religion 302 Religion and Society
- Sociology 202 Sociology of Knowledge and Belief
- Sociology 203 Social Inequality
- Sociology 205 (formerly 106F) The Family in Literature and Society
- Sociology 206 Comparative Race and Ethnic Relations
- Sociology 208 Sociology of Religion
- Sociology 214/American Studies 314 The Making and Meaning of Popular Culture
- Sociology 218 Seminar: America and Japan, A Sociological Comparison
- Sociology 305 The Afro-American, A Sociological Perspective
- Sociology 310 Sociology of Work and Occupations
- Spanish 112 Latin American Civilization
THE DEGREE WITH HONORS IN ANTHROPOLOGY

Applicants must submit an outline of a year-long research project at the time of preregistration in the spring of their junior year. If the quality of their prior work in Anthropology appears high and if they have mastered the skills appropriate to the projected research, they will be permitted to register for Anthropology 493-W31-494, in which they will write a thesis. If their overall work in the major has continued to be of a high quality and the thesis, upon completion, is deemed of a similar quality, they will receive Honors in Anthropology.

AREA STUDIES CONCENTRATION

Students who wish to combine a major in anthropology with an Area Studies concentration are encouraged to do so. Courses taken to satisfy an Area Studies requirement may be counted toward the Anthropology major provided that they fall into the appropriate categories. The only exception to this rule is the Area Studies senior seminar, which cannot ordinarily be counted toward the Anthropology degree.

LANGUAGE STUDY, STUDY ABROAD AND WINTER STUDY

Departmental advisers will help interested students integrate an Anthropology major with study abroad, foreign language study or field research during the Winter Study Period. The Anthropology major program encourages Williams students to take advantage of established foreign study programs in Egypt, Japan, India, Hong Kong and various European and African countries.

ANTH 101(F,S) The Scope of Anthropology

An examination of human behavior in cross-cultural perspective, covering the broad range of topics included in the field of cultural anthropology: human ecology, language, ritual and belief, kinship, economics, political organization and law. Stress will be placed on the theoretical, methodological and ethical issues involved in the study of the “other” and the ways in which this ancient and universal preoccupation with the other has been thought to illuminate self and society. Examples will be drawn from both western and non-western cultures. Limited to 40. Priority given to freshmen.
Hour 101
First semester: M. F. Brown
Hour 101S
Second Semester: ABU-LUGHOD

[ANTH 203 Text, Context and Performance (Not offered 1985-86.)

In all societies people use language creatively to narrate stories, recite poems and sing songs which express personal and cultural experiences, shape social and political relations and reflect or promote visions of the human condition. This course explores the relationship between the verbal arts, oral literature in particular, and the social and cultural life of communities in which they are found. Although the focus is on “traditional” pre-literate or semi-literate societies in the Americas, Africa, the Middle East and Asia, key issues are raised through a comparative look at oral expressive genres including ballads, the Blues and television advertisements in Western literate (or post-literate) societies like the United States and Ireland. The central question is how best to approach the analysis of oral literary “texts” given that they are performed for audiences. Other topics considered are: the validity of the distinction between “traditional” or “primitive” and modern with reference to arguments about the extent and roots of differences in modes of thought, forms of expression and creativity in the arts; the relationship between oral tradition and history; the strategic adaptation of folklore in Third-World political contexts and in written works; the impact of mass communication and commercialization on the verbal arts.
No prerequisite.
Hour

ABU-LUGHOD]
Anthropology

ANTH 204(F) Economic Anthropology
The production, distribution and consumption of material goods are everywhere tied to systems of social and symbolic relations. This course examines critically the assumptions of formal economic theory and attempts to develop alternative and less ethnocentric models that explain "economic" behavior in a broad range of human societies, both tribal and industrial. Topics to be considered include the various forms of production found among tribal peoples, the ways in which goods circulate in tribal settings, the symbolic significance of reciprocity and redistribution, and the historical processes that produce great differences in wealth within societies. Using a case study approach, the course will also analyze the economic effects of modernization in several developing countries and consider the practical contributions that anthropology can make to development projects.
No prerequisite.
Hour

M. F. Brown

ANTH 206 Language and Culture (Same as Japanese 206)
This course considers the ways in which the cultures of Japan and the United States are reflected in their languages. Some literature and film as well as more standard linguistic works will be used to discuss such issues as gender relations, family life and patterns of authority. No prior knowledge of Japanese will be assumed.
No prerequisite. Open to freshmen.
Hour

JORDEN

ANTH 207(S) North American Indians
An introduction to Native American subsistence patterns, social organization, ritual and mythology from prehistoric times to the present. Special attention will be given to (1) the substantial differences among the world views of diverse Native American societies, and (2) the way that these differences express themselves in each society's strategy for survival in modern America. Readings will include autobiographical and analytical works, as well as examples of contemporary Native American literature.
No prerequisite. Open to freshmen. Enrollment limited to 40.
Hour

M. F. Brown

ANTH 209 Human Ecology (Not offered 1985-86.)
The relationship between man and his environment. Comparisons made between peoples with varying forms of socio-economic organization and technology and the environments which they occupy and utilize. Special emphasis is placed on traditional adaptive strategies. Examples are included from prehistoric as well as contemporary societies.
No prerequisite.
Hour

M. F. Brown

ANTH 216(F) Native Peoples of Latin America
A survey of the cultural heritage of Central and South America. The course will consider the native societies that existed before 1492 (including the Maya, Aztec and Inca civilizations); the demographic impact of the Conquest; the economic, social and religious life of contemporary tribal and peasant communities; and the problems of culture change in the turbulent political arena of the modern Latin American state.
No prerequisite. Open to freshmen.
Hour

M. F. Brown

ANTH 222(F) Women in Cross-Cultural Perspective
Through the comparative perspective of anthropology we will consider the question of whether there are universals in sex role differentiation and, if so, whether their bases are natural or cultural. An examination of women's lives in a variety of societies will reveal in what sense gender defines identity and social position and to what extent other principles such as kinship, age or class can take precedence. Given the absence of
reported cases of matriarchies, can we conclude that sexual asymmetry and male dominance are universals? How can we define power and by what criteria should we measure status? Much of the course will be devoted to a close examination of the relationship between gender ideology, social structure and the actualities of women's day-to-day lives and experiences in selected cultures in Africa, Asia, Latin America and the Middle East.

No prerequisite.

**Hour**

ANTH 224(F)  **Anthropology of the Middle East**

An introduction to peoples and cultures of the contemporary Middle East with emphasis on the Arab world from Southwest Asia to North Africa. The social, economic and cultural diversity and the unifying themes will be approached from the comparative viewpoint of anthropology. Topics covered will include images of “the Orient”; the rise of Islam; ancient and modern theories of the relationship between nomads and settled peoples; tribalism; stratification and power; Islam as locally received; healing cults; kinship and marriage; male-female relations and the ideology of honor; the impact of European world ascendancy and the Middle Eastern encounter with the West. Materials will be drawn from ethnographies of pastoralists, peasants and urban groups as well as from indigenous social theory and imaginative literature.

No prerequisite. **Open to freshmen.**

**Hour**

ANTH 314  **Theory and Method in Anthropology**

Critical examination of the major trends in anthropological theory and method from the Enlightenment to the present. Particular emphasis will be given to the ways in which theory and method in the social sciences are linked. We will explore how underlying assumptions and historically specific concerns shape theorists' visions of the relationship between society, culture and the individual and how these visions influence what they consider adequate descriptions and explanations of human social life and experience. Topics will include changing ideas about race and evolution, functionalism, structuralism, Marxism, interpretive social science and the concern with everyday life, the relationship of anthropology to the colonial experience, changing views of the ethnographic encounter, and the ethical dilemmas confronted by contemporary anthropologists.

Prerequisite, Anthropology 101 or permission of the instructor. Required for Anthropology majors.

**Hour**

ANTH 316  **The Self in Culture and Society**

An exploration of recent trends in psychological and interpretive anthropology. This course will consider such topics as cross-cultural variation in conceptions of the self; the terms in which personal experience is organized and interpreted; and the cultural construction and patterning of emotions and their expression. We will also raise questions about the relationship between social ideology and the perceptions of the opposition between or the integration of the self and society. For example: to what extent do individuals in different cultures perceive the social order as their own creation or as imposed upon them and constraining them? How appropriate are the Western cultural categories of individualism and egalitarianism to the analysis of society in other cultures? Can the social universe be constructed according to different principles, e.g., hierarchy and holism in caste society, corporate identification in kin-based societies and according to other values, such as interdependence versus independence. Readings will include classics in culture and personality and interpretive anthropology, life histories and autobiographies.

No Prerequisite.

**Hour**
ANTH 320 (formerly 220) Medical Anthropology

Medical practices everywhere are a reflection of the cultural values and beliefs of the societies in which they are found. This course will compare the ideology and social relations of medical care in a variety of non-western and western societies. Topics will include: cultural definitions of the human body in life and death, aging, sickness and health; the impact of disease on society; variations in healing practices and practitioners; curative substances and devices; and health care in pluralistic societies.

No prerequisite.

Hour

M. F. BROWN

[ANTH 401 Issues in Sociocultural Anthropology: The Meaning of Ethnography (Not offered 1985-86.)]

An exploration of the philosophical, scientific and political significance of the ethnography—a type of document that may be anthropology's most important contribution to Western letters. This course will trace the changes in ethnographic conventions from early explorers' accounts to the almost painfully self-conscious works of the 1980s. Much of the course will consist of a close reading of several classic ethnographies (including Evans-Pritchard's The Nuer, Malinowski's Argonauts of the Western Pacific, Bateson's Naven and Levi-Strauss's Tristes Tropiques) in an attempt to shed light on the authors' underlying assumptions about the nature of cross-cultural and intersubjective understanding and its philosophical implications. We will also read a number of recent works that either criticize the enduring conventions of ethnography or attempt to develop new and ultimately less ethnocentric ones. Open to senior majors and qualified upperclassmen with instructor's permission.

Hour

M. F. BROWN

ANTH 493-W31-494 Senior Thesis

ANTH 497, 498 Independent Study

AREA STUDIES (Div. I & II)

Advisor, Professor JOHN B. SHEAHAN

The Area Studies program was designed to study the peoples and cultures of the non-Western world. It now includes concentrations in three specific areas, plus courses concerned with concepts and with areas not included in these concentrations. The three areas for which concentrations are now offered are: (1) Africa and the Middle East, (2) Russia and Eastern Europe and (3) South and East Asia. Students interested in a concentration in any of these areas should refer to the descriptions of courses and requirements given separately in the catalog for each of these areas.

A list of courses is given below for "concepts courses" which cross areas for study and for courses concerned with Latin America. Any student in the college is of course welcome to take any of these courses on an individual basis, without commitment to an area concentration. We believe that understanding of an area requires study from the varied angles of different disciplines, and that a student is likely to gain particularly from a grouping of courses in a particular area. That is the point of recommending a concentration for those areas in which it is currently possible to offer a sufficient variety of courses. It has not yet become possible to offer a formal concentration in study of Latin America, but students can find courses in several departments which are concerned with the area, as listed below.

CONCEPTS COURSES—Relevant for Area Studies Programs.

Anthropology 209 Human Ecology
Anthropology 222 Women in Cross-Cultural Perspective
Anthropology 314  Theory and Method in Anthropology
Economics 204  Economic Development
Economics 364  The Economics of Development
Political Science 104  Comparative Politics: Power, Legitimacy and Change in the Modern World
Political Science 332  Third World Political Theory: Perspectives on Race, Colonialism and National Liberation Struggles in the Twentieth Century (Deleted 1985-86.)
Political Science 343  Settler Colonialism: Problems and Conflicts
Religion 101  Introduction to Religion

LATIN AMERICA
Anthropology 216  Native Peoples of Latin America
Economics 224  Change in Latin America
History 226  Latin American History
Political Science 249  Latin American Politics
Political Science 349  Modernization and Democratic Breakdown (Deleted 1985-86.)
Spanish 103-104  Intermediate Spanish
Spanish 105  Advanced Composition and Conversation
Spanish 106  Advanced Composition and Conversation
Spanish 112  Latin American Civilization Conducted in Spanish
Spanish 203  Major Latin American Authors: 1880 to the Present Conducted in Spanish
Spanish 204  Modern Hispanic Poetry Conducted in Spanish
Spanish 205  The Latin American Novel in Translation
Spanish 402  Studies in Modern Latin American Literature
Sociology 102  Seminar: Sociology of Development (Deleted 1985-86.)

ART (Div. I)
Departmental Staff for 1985-86
Chair, Professor ZIRKA Z. FILIPCZAK


MAJOR PROGRAM
Two routes are offered, the emphasis of the first being on the history of art and the second on creative work in studio.

Art History Route
Sequence courses
   Art 101-102  Introduction to Art History
   Art 110  Drawing I or its equivalent as agreed by the Department to be taken by the end of the junior year
   Art 301  Art Historical Methods
   One Seminar or Graduate Course
Parallel courses
   Any five additional semester courses of art history of which at least two must be concerned with different periods of art prior to 1800 and one must be non-Western.
Art

Art Studio Route

Sequence courses
- Art 111 Studio Foundation I
- Art 112 Studio Foundation II
- Art 101-102 Introduction to Art History
Any two of the 200 or 300 level studio courses in two different media (excluding
  Art 326
- Art 319 Junior Seminar
- Art 413, 415, 417, 423
- Art 418 Studio Seminar

Parallel courses
One semester of art history concentrating on contemporary (post-1950) art and
one semester of art history concerned with a period prior to 1950 or non-Western
traditions.

Pre-architecture: the same sequence through the junior level except for the addition
of Art 320, then Art 419 and one of the following:
- Art 310, 326 or 418.

For both routes the major is conceived as a close relationship between the history of
art and creative design.

Art History Route: Art 101-102 begins with a series of critical studies of original works
(architecture, sculpture and painting) in order to emphasize careful observation and
response to the artists' use of visual forms. The historical courses, including most of Art
101-102, present the chief artistic achievements from ancient times to the present. Ar-
chitecture, sculpture, painting and related arts are discussed, sometimes concurrently to
explore their connections with one another in a given social context, sometimes indi-
vidually to provide an intensive training in the special problems of each art. The criti-
cal approach of the first course is maintained throughout, especially by assigned study
of original works in the Williams College Museum of Art and the Clark Art Institute.

The student's understanding is further developed by a semester of Studio Foundation
in which no creative ability or prior experience is assumed. Learning by doing is con-
sidered to be vital training in what is a visual as well as a verbal discipline.

Art Studio Route: The studio route of the Art major has been designed 1) to develop a
critical understanding of both the process and function of art making in Western cul-
ture, with emphasis on the contemporary situation, 2) to develop and support creative
interests and artistic capacities, and 3) to develop the student's imagination, intuition
and perception through practical problems within a limited variety of techniques.

Studio work begins in the freshman year courses, Art 111 and 112, which serve as an
introduction to basic design principles, contemporary methodology and critical analy-
isis. The 200, 300 and 400 level courses offer the student a range of specific opportunities
to develop individual interests, but there is a continuing strong emphasis on self-
awareness and rigorous critical analysis. The Art Studio route culminates with Art 418,
in which individual students work closely with members of the department on individ-
ual semester long projects. Studio Route majors seriously considering architecture will
follow the same sequence through the junior level, followed by Art 419, Architectural
Design II, and one of the following: Art 310, Drawing III, Art 326, Environmental De-
sign or Art 418, Studio Seminar.

Consistent with the close connection between studio and history courses in the Art
Department, students are required to complete Art 319, Junior Seminar, and two semes-
ter courses in Art History beyond the Art 101-102 level. A knowledge of achievements in
art is considered essential to developing a thorough understanding of the art making
process and important as a basis for self appraisal for developing artistic interests.

(Numbering of art courses has a system. The middle digit means: 0—general course, 1
and 2—Studio, 3—Ancient and Medieval, 4—Renaissance, 5—Baroque and Eighteenth
Century, 6—Nineteenth Century, 7—Modern, 8—Oriental and African.)
THE DEGREE WITH HONORS IN ART

Art majors who choose to be candidates for the degree with honors must select one of the following routes. The completion of these requirements, however, will not guarantee a degree with honors. In all cases, a student’s work will be judged by at least two members of the department.

Art History:
Students must choose one of the following three options:

1. Concentration in the major: two courses in one of the periods or disciplines described below, to be followed by an independent study course and a WSP 33 in the senior year. Fields of concentration include Ancient art, Medieval art, Asian art, Renaissance art, Baroque art, American art, nineteenth and twentieth century art, the History of Architecture and others that may seem appropriate to the student and the department.

2. Interdisciplinary option: two courses offered by other departments or programs to be followed by an independent study course and a WSP 33 in the senior year. The possible areas of interdisciplinary study are unlimited and could include all departments and programs.

N.B. Options 1 and 2 must be determined by honors candidates and their sponsors by the middle of the fall semester of the student’s senior year. Students will be officially admitted to honors candidacy only after a review of their work by the entire department.

3. Thesis. The thesis topic and sponsor must be determined by the end of the spring semester of junior year and the research and writing of the thesis will be carried out during both semesters and WSP of senior year. (Students electing to write a thesis should register for Art 493-W31-494.)

Under very unusual circumstances, the department may accept other routes toward the degree with honors, but such programs must be approved by the department by the middle of the first semester of the senior year.

Art Studio:
To be candidates for the degree with Honors in Art Studio, students must present no more than 10 original works or 20 slides of their work for review by the faculty in October of their senior year. On the basis of the review, the faculty will nominate candidates who will participate in a program of independent study in the WSP and the second semester. This program will culminate in a project presentation agreed upon by the student and the sponsor.

ART HISTORY COURSES

ART 101-102 Introduction to Art History
Basic problems in the understanding and criticism of architecture, sculpture and painting. A study of a limited number of works of these arts in the principal historical periods and cultures including the present. Their relationship to each other and to the social and historical background. Architecture and sculpture emphasized in the first semester; painting in the second.
Lectures and a weekly conference hour in groups of about 16 students.

Students, especially those wishing Art 101-102 before a Junior Year Abroad, should note that the course MUST be taken in sequence, although not necessarily in the same academic year. A white petition is needed to do this.

Students who have audited Art 101-102 (lectures and conferences) on a registered basis may elect any course in the History of Art in the 200 or 300 group.
Enrollment limited to 320. Starting in 1986-87, enrollment will be limited to 290 with priority given to underclassmen.

E. J. Johnson, Grudin
Assisted by other Members of the Department
ART 201 American Landscapes
A survey course stressing the description and historical geography of regional, vernacular American settings with the goal of discerning a national style of spatial or landscape organization. Among the man-made environments to be studied are: forestlands, rangelands, croplands, outdoor recreational sites, mines and quarries; small towns, milltowns, central business districts and suburbs; power and utilities; housing, industry, commerce and institutional uses such as the American college campus; water, road and rail corridors as examples of circulation nets. Primary evidence will be visual. Several mini-tests; an essay, term project and final examination. Prerequisite, none. This course is conceived as an introduction to Art 202, Art 303 and Art 304; it is suggested, but not required that Art 201 be taken before them.

Hour Conferences: Satterthwaite

ART 202 North American Cities (Same as Environmental Studies 202) (Not offered 1985-86.)
The planting of colonial and frontier settlements; the types of towns, as reflected in physical or visual form; the evolution of those loci subject to great population increase and possible subsequent decrease; patterns of circulation, land use, neighborhood and building types; suburban and metropolitan developments; the Public Health and City Beautiful movements; urban renewal and the rise of the planning profession; the role of monumental elements like parks, boulevards and major buildings; the legacy of major figures like Frederick Law Olmsted, Daniel Burnham, Jane Addams, Robert Moses and James Rouse; the effects of entrepreneurship, of style, of era.
Lectures, discussions, field trip, bi-weekly essays, final examination.
No prerequisite.

Hour Satterthwaite

ART 203 The Ancient City (Same as Classics 203)
(See under Classics for full description.)

ART 204 Portraits of Cities
Visual, spatial and historical studies of selected cities. Topics will include: methods of urban analysis; the development of urban forms, such as the street and square, and of urban architecture; cities transformed by successive civilizations; the relation between city and countryside; and the impress of major historical figures. Other approaches to the study of urban forms will be offered by visiting lecturers. Although the cities studied may change from year to year, Rome, Paris, London, New York and Los Angeles are likely to remain constants.
Field trip, several short papers, final examination.
No prerequisite.

Hour E. J. Johnson, Satterthwaite

ART 206 Brunelleschi to Lutyens (Not offered 1985-86.)
The principle developments in classical architecture in Europe from the revival of the style in fifteenth century Italy to the 1920's. Concentration on Italy in the fifteenth and sixteenth, France and Italy in the seventeenth and England, France and Germany in the eighteenth, nineteenth and twentieth.
Prerequisite, Art 101-102 or Art 101 if 102 is taken concurrently.

Hour E. J. Johnson

ART 209 On Art Museums
Theories, principles, practices and pitfalls of art museum operation, with consideration of troublesome issues for Directors, Curators and Administrators pertaining to morals, ethics, standards and other causes for uneasiness. The history of art museums will be reviewed and the focus will be on art museums in the United States today with case studies through extended visits to one or two eastern museums as feasible.
Prerequisite, Art 101-102.

Hour Parkhurst
ART 234  Classical Painting (Same as Classics 234)

An introduction to Greek and Roman painting. Classical modes of handling human and animal figures, historical and mythological narrative, expressions of feeling and drama, portraiture and landscape will be studied. Classical solutions to general artistic challenges will be set off against other systems in Egyptian, Aegean, Near Eastern and Etruscan painting and will be related to philosophical, scientific, literary and historical developments.

Midterm, final exam, short paper.
Prerequisite, Art 101-102 or a course in Classics.

Hour

ART 235  Islam and Byzantium (Not offered 1985-86.)

A study of the emergence of two major eastern cultures, including architecture and the minor arts, within their Mediterranean boundaries. The emphasis will be on the points of exchange between them and their relationship to the western Medieval world. Norman Sicily, Islamic Spain, Fatimid Egypt, North Africa, Syria and Palestine will be explored. Readings will include historical, religious and literary texts in translation. Students will work with original objects assembled for small loan exhibition. Fulfills non-western requirement.

Prerequisite, none.

Hour

ART 236  Early Medieval Art (Not offered 1985-86.)

The major artistic (including architectural) developments of medieval culture in the east and west from the rise of the Byzantine Empire, the establishment of papal patronage in the west, and the period of migration through the Carolingian, Ottonian and Romanesque periods. The religious, intellectual, political and social context of these developments (from the fourth through the twelfth century) will be considered. Source reading in translation.

Prerequisite, none.

Hour

ART 261  American Art, 1600-1860 (Not offered 1985-86.)

A survey of developments in painting, sculpture, architecture and the decorative arts. Major artists and objects will be treated with special attention to the divergent attitudes of internationally-oriented artists, such as Whistler, O'Keefe and Calder, and nativists, such as Homer, Hopper and Benton.

Prerequisite, Art 101-102. (For American Studies majors, no prerequisite required.)

Hour

ART 262  American Art, 1860-1940

A survey of developments in painting, sculpture, architecture and the decorative arts. Major artists and objects will be treated with special attention to the divergent attitudes of internationally-oriented artists, such as Whistler, O'Keefe and Calder, and nativists, such as Homer, Hopper and Benton.

Prerequisite, Art 101-102. (For American Studies majors, no prerequisite required.)

Hour

ART 263(S)  European Art, 1760 to 1860

A survey beginning with art of the prerevolutionary period. Major topics include changing definitions of neoclassicism and romanticism, the development of landscape painting as an autonomous art form and the interest in scenes from everyday life after the revolution of 1848.

Prerequisite, Art 101-102. This course does not fulfill the pre-1800 requirement for Art History Majors.

Hour

ART 264  European Art, 1860-1910 (Not offered 1985-86.)

A survey beginning with the art of Manet and Degas. Major topics include the rebuilding of Paris and its impact on images of city and country life, the “instantaneity”
of Impressionism versus the “permanence” of Post-Impressionism and the dual impulse toward subjectivism and abstraction.
Prerequisite, Art 101-102. Art 263 recommended.

ART 265(S) Paris, 1865-1885: Modernity, Urban Life and Avant-Garde Painting

Industry and capital transformed life in France in the nineteenth century, particularly at the end of the Second Empire and the beginning of the Third Republic (ca. 1865-1885). The Impressionists captured those changes in a variety of ways. We will look at and discuss their depictions of the country and the city, men, women and children, work and entertainment. We will also read and discuss contemporary theory and criticism. Lecture and discussion, midterm and final, paper option.
Prerequisite, Art 101-102. Enrollment limited to 50.

ART 271 American Art, 1940-1985

An introductory study of painting, sculpture, architecture and printmaking. The course will examine the rapid maturation of American modernism as manifest in Abstract Expressionism and then chart how Abstract Expressionism has been superseded by an ever-expanding array of post-modern movements such as Pop Art, Minimalism, Post Minimalism, Radical Realism, Process Art and Neo-Expressionism.
Prerequisite, Art 101-102. (For American Studies majors, no prerequisite required.)

ART 272 Twentieth Century Architecture

The major developments in western architecture from 1900 to present. The relationship of modern architecture to contemporary developments in other artistic fields, particularly painting and sculpture. The social concerns of modern architects. Concentration on major figures, such as Wright, Gropius, Mies van der Rohe, Le Corbusier, Aalto, Kahn, Venturi. Lectures and an occasional field trip.
Prerequisite, Art 101-102 or Art 101 if 102 taken concurrently.

ART 273 European Art, 1900-1950

The course examines early twentieth century abstract and expressionist currents including Cubism, Constructivism, De Stijl, German Expressionism, Dada and Surrealism. Major issues include the impetus toward abstraction, artistic collaboration, “aesthetic” responses to war and the abstract versus the surreal.
Prerequisite, Art 101-102. Art 263 and 264 recommended.

ART 276 Art of the Russian Avant-Garde (Same as Russian 208) [Not offered 1985-86.]

(See under Russian for full description.)

ART 283 The Arts of China

The course will present a general survey of the history of Chinese art. Various media (ritual bronzes, ceramics, jade, architecture, sculpture, calligraphy and painting) will be discussed in the context of Chinese cultural history. We will also consider what is unique about Chinese culture as conveyed by the art objects themselves.
No prerequisite. Open to freshmen.

ART 284 The Arts of Asia

The course is a general survey of the major artistic traditions in India, China and Japan. We will discuss the unique features of architecture, painting, sculpture and
Art

decorative arts of these traditions. We will also consider how the visual arts give expression to religious and cultural ideals (e.g., Hinduism, Buddhism, Confucianism, Taoism and Shinto).

No prerequisite. Open to freshmen.

Hour

Kuo

[ART 286(F) African Art (Not offered 1985-86.)

An introduction to the traditional sculpture and decorative arts of West Africa. Considerations of what these art forms are and why they exist will be accompanied by a study of their historical, political, economic and social backgrounds. Lectures, discussions and student seminar presentations will focus on a variety of subjects, including an investigation of European influence on African Art, the impact of African Art on twentieth century western painting and sculpture and the questions of authenticity and quality in African Art.

Prerequisite, Art 101 or permission of the instructor. Class trip to New York. (Open to freshmen.)

Hour

Grudin]

ART 301 Art Historical Methods

Examination of the various methods that are used by art historians (e.g., technical examination, stylistic analysis, connoisseurship, iconography, social and cultural history, psychology of perception, psychoanalytic criticism, deconstruction) and comparison of their advantages and limitations.


Prerequisites, Art 101-102. Limited to junior majors in Art History and required of them.

Hour

Filipczak

ART 303 Countryside Planning (Same as Environmental Studies 303)

(See under Environmental Studies for full description.)

ART 304 American Transport History (Same as Environmental Studies 304)

A research seminar attempting a visual and historical analysis of the movement of passengers and goods—the kinds of travel—in North America, as evidenced in such artifacts as seaports, roads, canals, railroads, airports. Primary emphasis upon the planning and design of rights of way or structures, with secondary emphasis upon the technological evolution of craft or rolling stock. This inquiry will explore such questions as: What has been the role of the civil engineer in American transport? What are the impacts of transport upon land use? How does one transport mode come to be supplanted by another mode? What perceptual experiences has each mode engendered? How and when does mobility become recreational or touristic?

Open to sophomores. Prerequisite, none. Requirements, bi-weekly short essays.

Hour

Satterthwaite

[ART 305 Non-Fiction Film (Not offered 1985-86.)

The evolution, from the Lumière brothers in 1895, of non-fiction film-making, by historical period and national school, with emphasis on the work of such masters as Flaherty, Ivens, Jennings, Lorentz, Riefenstahl, and on such “schools” as the National Film Board of Canada and the University of California at Los Angeles. Special attention to the documentary mode, the relationship to still photography, the analysis of cinematic form, and the influence of anthropology, war, propaganda and television upon the film as art. Some consideration of the experimental or avant-garde film.

Screenings, lectures, discussions, field trip, bi-weekly essays.

Prerequisite, none.

Hour

Satterthwaite]
Art

[ART 332  Greek and Roman Archaeology (Same as Classics 332) (Not offered 1985-86.)]
A survey of the major monuments and stylistic developments of ancient art from the Bronze Age to the fourth century A.D. Through lectures, discussions and assigned projects, the course also considers techniques of excavation, problems of interpretation and methods of cultural reconstruction.
Open to sophomores. Prerequisite, Art 101-102 or a course in Classics.

Hour

STAMBAUGH]

[ART 342  Renaissance Art in Italy (Not offered 1985-86.)]
Painting and sculpture of the Trecento and Quattrocento. Principal artists studied: Giotto, Duccio, Masaccio, Donatello, Ghiberti, Fra Angelico, Uccello, the Lippi, Mantegna, the Bellini, Piero della Francesca, Botticelli, Leonardo da Vinci. Special topics for discussion: the Proto-Renaissance; painting of the Black Death period; the International Gothic Style; the rebirth of pictorial space; the development of the portrait; patronage and politics and secular and religious iconography.
Prerequisite, Art 101-102.

Hour

EDGERTON]

ART 343  Italian Art: 1500-1600
Painting of the High and Late Renaissance in Florence, Rome, Venice and their environs. Principal artists studied: Leonardo da Vinci, Michelangelo, Raphael, Correggio, Parmigianino, Rosso, Pontormo, Bronzino, Giovanni Bellini, Giorgione, Titian, Tintoretto, Veronese. Special topics for discussion will include: style and technique of the Renaissance drawing; landscape and Venice; the portrait; civic and private patronage; Mannerism; and religious and secular iconography.
Open to sophomores. Prerequisite, Art 101-102.

Hour

EDGERTON]

ART 352 (formerly 351S)  Netherlandish Baroque
After the southern and northern portions of the Netherlands became politically separate in 1609, their art became different in both form and subject. The course will examine the relationship of the paintings to the political, social and religious differences between the two countries. Painters studied will include Rubens, Van Dyck, Jordaens, Brouwer, Rembrandt, Hals and Vermeer.
Prerequisite, Art 101-102.

Hour

FILIPCZAK]

SEMINARS

[ART 330  The Art of Mosaic (Not offered 1985-86.)]
The course will examine the development of mosaic from its origins in Mesopotamia and Hellenistic Greece, to its Roman phase as seen in Pompeii and North Africa, and through the Byzantine period when mosaics replaced painting as a major pictorial medium. We will cover technical stylistic and iconographic aspects. Special consideration will be given to the structures of myth, religion and everyday life as revealed by the mosaics in their settings.
Prerequisites, none. Enrollment limited to 12.

Hour

KONDOLEON]

ART 379  Art and Criticism: Contemporary Strategies
Within the past two decades, the velocity of change in contemporary art has been encouraged by equally rapid theoretical developments in the fields of philosophy, literary criticism, and many of the social sciences. This course will examine the implicit strategic direction of modern and post-modern movements known as abstract expressionism, pop-art, minimalism, earth art, concrete art, conceptual art, new realism and
neopexpressionism, against the background of recent intellectual movements such as existentialism, structuralism, post-structuralism and deconstruction. Selected readings from Sartre, Levi-Strauss, Foucault, Derrida, Serres, Jameson, deMan and Hartman will be juxtaposed against the work of the following visual artists: Marcel Duchamp, Balthazaar Klossowski, Jackson Pollock, Yves Klein, Joseph Beuys, Robert Morris, Andy Warhol, Christo Javacheff, George Baselitz, Julian Schnabel and Sandro Chia. Prerequisite, Art 101-102.

Hour

[ART 406] The Architectural Book (Not offered 1985-86.)

Since the sixteenth century, the chief conveyors of architectural ideas have been printed illustrated architectural books. This seminar will investigate the development of this type of book from the first example, Fra Giocondo's edition of Vitruvius of 1511, to the introduction of photographic plates into architectural histories in the second half of the nineteenth century. Original examples in the collections of the Chapin Library, the Williams College Library and the Clark Art Institute will be studied. Several short papers and a major oral report. Prerequisite, Art 101-102. Enrollment limited to 15.

Hour

KRENS

ART 408 (formerly 407) Conserving and Restoring

(See Art 508 for full description.)

ART 436 The Trojan War: Greek Art and Poetry (Same as Classics 436)

Greek warfare and themes of victory and death, captivity and exile, from Homer through lyric and tragic poetry and in archaic and classical art. No prerequisite. Enrollment limited to 15.

Hour

VERMEULE

ART 442 Art and Science

Students in this seminar will examine certain instances in the history of science and technology during the so-called Scientific Revolution of the seventeenth century and during the "Einsteinian Revolution" of the early twentieth century in order to learn if art, especially Renaissance realism in the earlier period and abstraction in the later, had any influence on scientific thinking. Prerequisite, permission of the instructor. Enrollment limited to 15.

Hour

EDGERTON

[ART 451] Baroque Art and Gender Roles (Not offered 1985-86.)

A study of the roles, attributes and poses that were perceived as gender bound, and of the depictions (and artists) that maintained or reversed traditional usage. Works of Caravaggio, Rembrandt, Poussin, Rubens and Bernini compared to those of contemporaries, especially of women artist. Readings include historical and contemporary literature. Prerequisite, Art 101-102.

Hour

FILIPCZAK]

ART 465 Ingres

An investigation of Ingres' history painting, portraiture and "oriental" themes, emphasizing the critical response his works received and the treatment of similar subjects by contemporaries. This course will also assess Ingres scholarship in light of recent methodological developments. Prerequisite, Art 101-102. Enrollment limited to 15.

Hour

OCKMAN

ART 473 Giacometti: The Art and Poetics

This course focuses on the sculpture and painting of Alberto Giacometti (1901-1966). Emphasis will be on the three great periods of his work: 1) from his arrival in Paris to
the end of his Surrealist period, 2) from 1934 to his return to Paris after World War II, 3) from 1947 on. His relations with several writers of the period with whom he was close (Michel Leiris or Georges Bataille, André Breton, Jean-Paul Sartre or Jean Genêt) will be considered. Giacometti’s work as well as that of Picasso will be examined in terms of their shared concern with the issue of presence in beings and things.
No prerequisite. Enrollment limited to 15.

BONNEFOY

ART 477 Issues in Modern American Art
The seminar will examine critical and theoretical approaches to Abstract Expressionist painting. Special attention will be paid to the contrasting theories of formalism and Action Painting, their origins in modern American poetics, their relative merits, and the influence they have had on contemporary art and criticism. We will also consider various psychoanalytic, social-historical and structuralist methods of analyses.
Prerequisite, Art 101-102. (For American Studies majors, no prerequisite required.)
Enrollment limited to 15.

ROHN

ART 484 Chinese Painting: The Literati Tradition
The seminar will explore the major change in the history of Chinese painting toward the end of the thirteenth century in which the personal and individual expression of the literatus-artist is emphasized. We will attempt to define the nature of this change by considering such important aspects as individualism, archaism and expressionism. We will also examine the composite art of poetry, calligraphy and painting. Special attention will be given to the problems of interpretation.
No prerequisite. Enrollment limited to 15.

KUO

ART 493-W31-494 Senior Thesis
(See general description of the Degree with Honors in Art, Art History Route.)

ART W33 Honors Independent Project

ART 497, 498 Independent Study

ART STUDIO COURSES

ART 110(F,S) Drawing I
As an introductory course, presuming no previous experience, this investigates the visual means of expression as it applies to the limits of the two-dimensional surface. The principal aim is to define and explore basic elements of drawing by which ideas and effects can be expressed. These include line, shape, light and shadow, texture, pattern, perspective, scale and balance.
Open to all classes. Enrollment limited to three sections in fall semester and two sections in spring semester.
Prerequisite, none.
Hours 110(F) 110(S)
First semester: CUNARD, GLAZER, GRYLLS
Second semester: CUNARD, GLAZER

ART 111 Studio Foundation I
This is the first semester of a two semester foundation program recommended for those students who anticipate going on to take several additional studio courses. It is primarily concerned with the traditional (pre-1950) issues, media and approaches to art production. Much of the material covered will be of basic value to any artist working anywhere at any time and will include the following: drawing (sketch to finished state-
ART 112  Studio Foundation II

This course is designed as an introduction to some of the ideas and intentions with which contemporary art has been concerned—time, space, perception, motion, lifestyle. Many of these concerns grow indirectly from issues raised in the first half of this century—areas not normally associated with art, e.g., philosophy, psychology and physics. The course will incorporate many of the more traditional basics acquired in the first semester, but will relate these to the Modernist tradition by the use of photographic imagery, film and video.
Prerequisites, Art 110 or 111 (with permission of the studio faculty).  Enrollment limited to 15.

ART 210  Drawing II

Drawing II investigates further those techniques, formal principles and ideas which were introduced at the introductory levels of drawing. Having become familiar with the drawing process, students will be encouraged, through selected problems, to challenge the conventions of mark-making and redefine the common interpretations of drawing. The range of exercises could include traditional materials on paper as well as combinations of marking devices and systems more commonly associated with non-art disciplines, i.e., computers, industrial materials, physics, philosophy, etc.
Prerequisite, Art 110 or 111.  Enrollment limited to 15.

[ART 310  Drawing III (Not offered 1985-86.)]

This upper level drawing course will continue to emphasize the student's understanding of the interaction between idea and technique. Experimentations developed in the prerequisite drawing courses will serve as the foundation for work completed here. Through directed and self-initiated problems the class will encounter drawing problems that could include: image/text; systems/process; proposal/documentation.
Open to sophomores.  Prerequisite, Art 210.  Enrollment limited to 15.

ART 311  Painting I

The course will develop an understanding of the language of painting—color, form, space, paint application. Students are exposed to a series of structured problems in painting; beginning with black and white acrylics and progressing to color in oils. A variety of subject matter will be used including still-life, figure and abstract compositions. The three hours in the studio will be supplemented by at least six hours work outside class.
Open to sophomores.  Prerequisite, Art 110 or 111.

ART 312  Painting I

A beginning course in painting which will implement the formal elements of color, space and pictorial structure. Course work will investigate contemporary concerns with the painting process: non-traditional painting media; two and three dimensional forms, other than the stretched canvas, as a support structure for the painted image; sources of imagery rooted in life and art concerns since 1950. Three hours in the studio will be supplemented by at least six hours work outside class.
Open to sophomores.  Prerequisite, Art 110 or 111.
[ART 314  Watercolor (Not offered 1985-86.)]
Specific characteristics of watercolor as a painting medium are explored, with special attention given to the unique qualities which isolate it from other painting materials. While specific problems will be assigned, solutions could include the representational and nonobjective, intimate sketches and finished objects. Slide lectures and study of watercolors from the Williams College Museum will serve as historical framework to the development of the medium and its historical importance in art making. 
Open to sophomores. Prerequisite, Art 110 or 111. Enrollment limited to 15.

ART 315  Sculpture I
A beginning course which will have three major projects. Each project will be concerned with different media and the tools and techniques necessary to produce sculptural solutions. Project 1: Each class member will contribute his individual solution to a group outdoor installation for a specific site. The primary material will be wood in all forms.
Project 2: A sculpture having a specific function. A combination of found and made objects using multiple means and techniques will be used along with a polychrome surface treatment. Personal expression, ingenuity and social commentary will be stressed.
Project 3: A series of study portrait heads using more traditional materials and techniques will be studied. Emphasis will be placed on expressive form and surface treatment. Clay and plaster will be the primary materials. Students will study specific works of art and individual student solutions will be encouraged.
Prerequisite, Art 110 or 111.

ART 316  Sculpture I
An introduction to sculptural ideas and materials used in wood and metal fabrication. Studio projects will cover traditional as well as experimental forms of sculptural expression. The proper operation and maintenance of all shop tools and equipment will be discussed. Assignments will develop an understanding of arc and gas welding as well as the aforementioned woodworking power tools. Assigned readings will coincide with assigned projects emphasizing the student's need for critical awareness of contemporary art works. Individual and group critiques will occur throughout the semester. 
Open to sophomores. Prerequisite, Art 110 or 111.

ART 317(S)  Photography I
An introduction to the ideas and materials used in the making of the photograph. Students will be given detailed instructions in the use of the camera, the processes of developing a film and producing a print. This technical knowledge will be considered a necessary groundwork for the student's exercise of creative freedom. The possible function of the photograph and its relation to historical and contemporary art practice will be explored. Students will be expected to fulfill assignments set by the course and to bring their personal interpretations to bear in fulfilling these assignments.
Open to sophomores. Prerequisite, Art 110 or 111 and permission of the instructor. Enrollment limited to 10.

ART 318(F)  Video
The course provides an opportunity to extend previous studio work into a direct involvement with the moving image, with time and with contemporary television technology. Basic video techniques will be taught including two-camera shooting and two-machine editing on ¾” Umatic. Encouragement will be given for development into specific areas, e.g., fiction and performance, social/political considerations, personal identity, context and metaphorical allusion and media-examination use. The work
of video artists will be shown and discussed and the course will see itself as being fully engaged in the post-modernist debate.

Open to sophomores. Prerequisites, Art 111 and 112 and permission of the instructor.

Enrollment limited to 8.

ART 319 Junior Seminar
Extensive readings will deal with major contemporary developments in art and fundamental concepts pertinent to the creative process in which the student will be engaged concurrently in her/his studio work.
Prerequisite, Art 111 and 112. Limited to junior majors in Art Studio and required of them.

Hour

ART 320 Architectural Design I
Preliminary instruction in design techniques and draughting with an introduction into architectural theory. Simple design problems will be used to help the student explore form and meaning in architecture.
Prerequisite, Art 110 or 111 or 112. Enrollment limited to 15.

Hour

[ART 322 Printmaking I—Serigraphic (Not offered 1985-86.)]
An introduction to printmaking through the serigraphic process. Students will learn to make their own screen and to produce multiple color prints. Techniques will include paper stencils, hand-cut film and photo process screenprinting. Both technical skill and a strong conceptual basis will be emphasized in order to create finished fine art prints. Experimentation is encouraged. Class time will consist of studio work, demonstrations, lectures, critiques and field trips.
Open to sophomores. Prerequisite, Art 110 or 111.

Hour

[ART 323 Printmaking I—Intaglio and Relief]
An introduction to printmaking through the process of intaglio and relief. Techniques will include drypoint, etching, collagraphy and mezzotinting. Monotypes, some color work, collage and hand tinting will also be covered. Both technical skill and a strong conceptual basis will be emphasized in order to create finished fine art prints. Experimentation is encouraged. Class time will consist of studio work, demonstrations, lectures, critiques and field trips.
Open to sophomores. Prerequisite, Art 110 or 111.

Hour

[ART 324 Printmaking I—Lithographic (Not offered 1985-86.)]
An introduction to printmaking through the process of lithography. Students will work on both stones and aluminum plates. Techniques will include traditional lithographic processes as well as monotyping, multiple plates, collage and hand tinting. Both technical skill and a strong conceptual basis will be emphasized in order to create good finished fine art prints. Experimentation is encouraged. Class time will consist of studio work, demonstrations, lectures, critiques and field trips.
Open to sophomores. Prerequisite, Art 110 or 111.

Hour

[ART 326 Environmental Design (Same as Environmental Studies 326) (Not offered 1985-86.)]
A studio course oriented to problem-solving in civic art. Experiential learning will be stressed through individual and team field projects initiated from within the class or at the suggestion of regional and local groups. Specialized learning is anticipated in fields such as housing, transport, land uses and comprehensive planning.
Open to sophomores. No prerequisite.

Hour

Satterthwaite]
ART 413  Painting II
The course will consist of individual independent projects and the further development of concepts dealt with in other painting courses. Through individual and group criticism the student will be guided to expand and explore the formal and expressive aspects of painting.
Open to juniors. Prerequisite, Art 311, 312 or 314.

ART 415  Sculpture II
A studio course that encourages creative decision making and the development of a personal approach to sculpture. Assignments will include two problems designed by the instructor. Projects will include some film and video work. The student will design additional projects and complete them in the classroom. Individual and group critiques will follow each completed project. Students will be encouraged to develop a portfolio and learn how to photograph their work.
Open to juniors. Prerequisite, any 300 level studio course.

ART 417  Photography II (Not offered 1985-86.)
This course investigates further those techniques and ideas which have been outlined at the introduction levels of Photography I and will emphasize the relationship between technique and imagination in the use of photography as art. The role of color in photography will be discussed, and, as well as being given instruction in the process of color photography, students will be encouraged to define the possible similarities and differences between the use of color in photography and its use in painting.
Open to juniors. Prerequisites, 310, 311, 312, 314, 317 or 318 and the permission of the instructor.
Enrollment limited to 10.

ART 418  Studio Seminar
At the beginning of the second semester, in consultation with members of the department, Art studio-route majors will determine individual projects or directions as the focus of their work for the semester. During the course of the semester, students are expected to refine their creative attitudes in a coherent and structured body of work which will be presented in exhibitions at the Williams College Museum in May.
Open to senior Art studio majors only.
Prerequisite, completion of all studio courses required for the Art Studio Route.

ART 419  Architectural Design II
Emphasis on Design theory and the more sophisticated aspects of architecture such as ornament, symbolism and the classical language. Useful for students thinking of applying to graduate school in architecture.
Prerequisites, Art 320.
Enrollment limited to 15.
around the making and criticism of prints but will also include lectures, demonstrations, field trips and group projects.
Open to juniors. Prerequisite, Art 322, 323 or 324.

GRADUATE COURSES IN ART HISTORY

Requirements for the Degree of Master of Arts in Art History

The degree is normally awarded upon successful completion of two years of resident graduate study. To earn the degree a candidate must pass with an average grade no lower than B—, a total of eight graduate seminars, fulfill the language requirement in the manner described below, and audit at least two additional graduate or undergraduate courses during his or her residence. In special circumstances credit may be given for graduate work satisfactorily completed elsewhere.

In addition to all course work the candidate must participate in a group study trip to Europe during Winter Study Period in the first year, complete a qualifying project in January of the second year, and pass an oral examination at the end of the second year.

Seniors may, with the permission of the Director of the Graduate Program and the Chair of the Art Department, enroll in the graduate courses listed below.

ART 501 Museum Studies
An introduction to the history of collecting, both private and public, with particular emphasis on the development of museum collections. Robert Sterling Clark will be examined as a collector in the context of his contemporaries and special attention will be paid to the art market and its operation. There will be several all-day visits to dealers, collectors and auction houses, as well as to selected New England Museums.

ART 503 Color in Art, 1230-1530
Color theories have abounded in Western cultures, evolving exceedingly slowly from pre-Greek scientific beginnings, and are still being elaborated. This course endeavors to demonstrate how and when these theories were applied by painters. Illuminations in manuscripts will be used as principal examples because closed books have protected colors from change and deterioration. Examples from ca. 1230-1530 will be studied, chiefly from collections in Williamstown and the Pierpont Morgan Library, New York (class trip). Theoretical sources studied include writings of artists and scientists such as Plato, Aristotle, the Oxford School, L.B. Alberti, Leonardo da Vinci and others.

ART 508 (formerly 507) Conserving and Restoring (Same as Art 408)
This course, taught by the professional staff of the Williamstown Regional Conservation Laboratory, will acquaint graduate and undergraduate students with laboratory methods used in scientifically analyzing works of art in order to prevent natural deterioration, repair damage, detect forgeries. Both theory and practice will be emphasized, and the students will be required to undertake some actual laboratory experiments. This course is only an introduction and will not of itself provide professional expertise. However, it will offer basic information concerning the handling, display and storage of paintings, sculpture and graphic works, thus providing deeper insight into modern museum practices. Open to a maximum of twelve students. Some understanding of chemistry and of fine arts helpful. Prospective students must first be interviewed by Mr. Hoepfner.

ART 543 Italian Art, 1500-1600 (Same as Art 343)
Painting of the High and Late Renaissance in Florence, Rome, Venice and their environs. Principal artists studied: Leonardo da Vinci, Michelangelo, Raphael, Correggio,
Parmigianino, Rosso, Pontormo, Bronzino, Giovanni Bellini, Giorgione, Titian, Tintoretto, Veronese. Special topics for discussion will include: style and technique of the Renaissance drawing; landscape and Venice; the portrait, civic and private patronage; Mannerism; and religious and secular iconography. Graduate students will attend regular undergraduate lectures, plus a special colloquium for graduate students only.

**ART 544 Raphael**

A comprehensive survey of the artistic development of Raphael, with emphasis on the drawings as evidence of his creative processes. The critical reputation and influence of the artist will also be studied.

**ART 546 Art and Science (Same as Art 442)**

Students in this seminar will examine certain instances in the history of science and technology during the so-called Scientific Revolution of the seventeenth century and during the “Einsteinian Revolution” of the early twentieth century in order to learn if art, especially Renaissance realism in the earlier period and abstraction in the later, had any influence on scientific thinking.

**ART 561 Ingres (Same as Art 465)**

An investigation of Ingres' history painting, portraiture and “oriental” themes, emphasizing the critical response his works received and the treatment of similar subjects by contemporaries. This course will also assess Ingres scholarship in light of recent methodological developments.

**ART 562 Goya: Tradition and Change**

The seminar will explore the importance of Francisco Goya in the history of art in Spain and in the context of the development of European art in the nineteenth century. Special attention will be paid to his involvement with printmaking and to his continuing influence on Spanish culture.

**ART 566 Painting Modern Life**

The industrialization of Paris and its suburbs as well as its rebuilding by Baron Haussmann and Napoleon III was accompanied by profound social changes. Although the Impressionists as a group depicted many of these changes, it was the art of Manet, Degas and Caillebotte which most directly addressed the shifting definitions of public and private life, the role of women and workers, life on the streets, in the cafe's and at the theatre. In this course we will examine the work of those three artists in the context of contemporary history, theory and criticism.

**ART 571 European Painting, 1890-1910**

The change in pictorial imagery and technique from Late Impressionism to Symbolism and after 1900 to Fauvism and Cubism. Certain American painters will be studied in relation to their European contemporaries.

**LANGUAGES COURSES**

A good reading knowledge of two European languages (usually French and German) is required for the M.A. degree in art history at Williams and provision for attainment of this qualification is an integral part of the program of study. Elementary and intermediate undergraduate courses offered by the language departments are open to gradu-
ate students and the Graduate Program offers advanced one semester courses in French and German art history readings. A student who begins elementary language study after enrollment in the Program should expect to take a sequence of three one semester courses (501-502, 509). Entering students with some previous language background will be asked to take a standard reading examination for purposes of placement. A score of 500 is required for admission to the advanced (509) course. Students with scores below 500 will be enrolled in language 501-502 courses. Students should aim to complete all language work no later than the end of the third semester.

To satisfy the requirement in each of the two required languages, a student must (a) score 700 or better on the CEEB reading examination upon enrollment in the program or, (b) complete satisfactorily (B— or better) and punctually all assignments and tests in the advanced course (509). The same standards and expectations apply to language courses as to other courses and seminars.

If appropriate to his or her course of study, a student may petition to substitute another language for one of the two languages normally offered. Instruction in Spanish, Russian, Latin and Greek is regularly offered in the undergraduate curriculum, whereas independent arrangements must be made for Italian, Dutch and other languages.

**French 501-502 (101-102)  Elementary French**

For students who have had no previous study of French. This course consists of the regular undergraduate introductory course.

**French 509  Readings in Art History and Criticism**

Prerequisite, French 501-502 or the equivalent, with a final grade of B— or above, or a reading score of 550 on the standard reading examination. Texts are selected from characteristic works of art history and criticism and from the specialized literature required in concurrent seminars.

**German 501-502 (101-102)  Elementary German**

For students who have had no previous study of German. This course consists of the regular undergraduate introductory course.

**German 509  Readings in Art History and Criticism**

Prerequisite, German 501-502 or the equivalent with a final grade of B— or above, or a reading score of 550 on the standard reading examination. Texts are selected from characteristic works of art history and criticism and from the specialized literature required in concurrent seminars.

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**ASIAN STUDIES**

*Chair, Professor Peter K. Frost*

**Advisory Committee:** Professor: Greene. Visiting Bernhard Professor: Jorden. Visiting Associate Professor: Ma. Assistant Professor: Hershatter.

Asian Studies is an interdisciplinary program focusing on the politics, societies, cultures and historical development of the peoples of East and South Asia. The program offers a wide range of courses in the area, as well as study abroad opportunities and possibilities for graduate fellowships and careers.
Asian Studies

Students considering completing the program are urged to register with the Chair of the program during their sophomore year. Normally students will be expected to take six courses from at least three different departments. One of these courses should be from among the “Concepts Courses” listed below. Four should be from the “Core Courses” electives. The sixth course will be the Asian Studies 402 “Capstone Course” required for this area. In special cases the Chair may permit substitution of an approved Winter Study Project or work completed elsewhere for one or more of the electives. Proposals for Honors work in Asian Studies, normally involving at least a one semester thesis and an oral examination, must also be submitted in writing by the beginning of the senior year and approved by the Asian Studies Committee.

Fulfillment of the requirements of the program will be recorded on the student’s official transcript.

Concepts Courses

All students are required to take at least one of the following courses, preferably near the beginning of their program.

Anthropology 101 The Scope of Anthropology
Economics 204 Economic Development
Religion 101 Introduction to Religion

Core Courses

All students are expected to take four of the following. Note that students are normally expected to present courses from at least three different disciplines to complete the program, and that in special cases credit can be given for a WSP or work done elsewhere.

Art 282 The Painting of India and Pakistan (Deleted 1985-86.)
Art 283 The Arts of China
Art 381 The Architecture of India (Deleted 1985-86.)
Art 484 Chinese Painting: The Literati Tradition
Chinese 101-102 Elementary Chinese
Chinese 201, 202 Intermediate Chinese
Economics 230 Growth and Equity in Asia
History 201 China to 1800
History 202 Modern China
History 253 Modern Japan
History 322 (formerly 222) Vietnam
History 332 Class, Gender and Community in China 1680-1980
History 359 Historians and History of China
History 364 Social Change in China
History 371 China and America: Cooperation and Conflict in Modern Times
History 403 Transformation in Asia: China and Japan (Through 1984-85.)
Japanese 101-102 Elementary Japanese
Japanese/Anthropology 206 Language and Culture
Religion 207 Hinduism: Pathways to Salvation
Religion 208 Buddhism: Ideals of Perfection
Religion 209 The Sage, the Way and Zen
Religion 226 Esotericism and Revolution (Deleted 1985-86.)
Religion 234 Indo-Tibetan Religious Thought (Through 1984-85.)
Religion 236 The Japanese Religious Aesthetic
Sociology 218 Seminar: America and Japan, A Sociological Comparison

ASST 402 Contemporary Asia (Same as History 365)
(See under History for full description.)

Hour

FROST

ASST 493-W31, W31-494 Senior Thesis
To be taken by candidates for honors by the thesis route in Asian Studies.
Astronomy

ASTRONOMY (Div. III)
Department of Physics and Astronomy
Astronomy Staff for 1985-86

Chair, Professor C. BALLARD PIERCE

Professor: PASACHOFF. Assistant Professor: KWITTER.

Courses in astronomy are available to anyone who is interested in studying the universe and learning to follow new astronomical discoveries as they are made. All courses in astronomy satisfy the Division III requirement. The Astronomy and Physics major is described subsequently.

The elementary astronomy courses are given on two levels; none has any prerequisite astronomy experience. Astronomy 101 and 102 have no prerequisites other than a willingness to use high school algebra. Astronomy/Physics 111 covers most of the same subjects as 101 and 102, but in greater depth. Freshmen expecting to take Physics 142 should consider Astronomy/Physics 111 in their first semester.

ASTR 101 Stars and Stellar Evolution
A general introduction to part of contemporary astronomy including discussions of how astronomers undertake and interpret observations of the universe. The course gives special attention to the exciting discoveries of the past few years. Topics include telescopes and modern astronomical instruments, atomic spectra, light, stellar groupings, the sun as an average star and stellar evolution including pulsars and black holes. Although there will be less use of mathematics and physics than in Astronomy/Physics 111, students will be expected to understand and use simple mathematical relationships linking astronomical observations to physical concepts such as spectroscopy and radiation laws. Laboratory work includes nighttime observation of stars, nebulae and planets and daytime observation of the sun, as well as films, planetarium demonstrations and experiments that elucidate the course material. Lectures, three hours a week; four 2 hour laboratory-conference sections, observing sessions and a planetarium demonstration to be arranged. Additional observing can be scheduled for students requesting it.

Non-major course. Prerequisites, a working knowledge of high school algebra. Remedial help is available. Junior and senior Division III majors are urged to take Astronomy/Physics 111 instead.

Hour Lab. section: PASACHOFF

ASTR 102 Planets, Galaxies and the Universe
A general introduction to part of contemporary astronomy including the study of planets and of objects larger in scale than stars. The course gives special attention to the exciting discoveries of the past few years. Topics include the planets including the latest results from space probes, the Milky Way galaxy, interstellar matter, x-ray and gamma-ray studies, galaxies, quasars and cosmology. This course is independent of and on the same level as Astronomy 101. Students in Astronomy 102 will be expected to learn and use simple mathematical relationships that link astronomical observations to physical concepts such as spectroscopy and radiation laws. Laboratory work includes nighttime observation of stars, nebulae and planets and daytime observation of the sun, as well as films, planetarium demonstrations and experiments that elucidate the course material. Lectures, three hours a week; four 2 hour laboratory-conference sections, observing sessions and a planetarium demonstration to be arranged. Additional observing can be scheduled for students requesting it.
Non-major course. Prerequisite, a working knowledge of high school algebra. Remedial help is available.

Hour Lab. section: KWITTER

83
Astronomy

ASTR 111 Introduction to Astrophysics (Same as Physics 111)
A survey of some of the main ideas of modern astrophysics, the first course in the Astronomy and Physics major sequence and one of two recommended entries into the Physics major. This is an introduction to astronomy meant for better-prepared or more science-oriented students than those taking Astronomy 101 or 102. Topics include astronomical instruments; spectral lines; the laws of radiation and stellar spectra; physical characteristics of the sun and stars; stellar formation and evolution; nucleosynthesis; white dwarfs, supernovae, neutron stars, pulsars and black holes; the interstellar medium, galactic structure; radio galaxies and quasars; cosmology. Lectures, three hours a week; observing sessions plus weekly one and one-half hour laboratory and discussion sessions. Additional observing and computer work can be arranged. Prerequisite, Quantitative Studies 100 (or demonstrating basic proficiency in diagnostic test — see Quantitative Studies) and a year of high school physics or a semester of college physics or satisfactory performance on an Astronomy placement examination. 

Hour Lab. sections:

ASTR 307 Modern Astrophysics (Same as Physics 307)
This course will cover selected topics in modern astrophysics. We will discuss physical processes in astronomical contexts, including radiative transfer, stellar structure and mechanisms operating in gaseous nebulae. We will examine data recently, and only, accessible to space-borne detectors in the infrared and X-ray regions of the spectrum. 

Lectures, with some presentations by students; three hours per week. 

Prerequisites, Astronomy/Physics II or Astronomy 101, 102 with permission of the instructor and Physics 202.

Hour

[ASTR 309 The Milky Way Galaxy (Same as Physics 309) (Not offered 1985-86.)
A study of our Galaxy and its contents. Topics will include the galactic rotation curve and determination of the mass of the Milky Way, the distribution and characteristics of stellar populations, the interstellar medium as seen in gaseous nebulae and molecular and diffuse clouds, and chemical composition and evolution of the Galaxy. Lectures with some presentations by students, three hours a week. 

Prerequisites, Astronomy/Physics 111 or Astronomy 101, 102 with permission of the instructor and Physics 202.

Hour

[ASTR 330 The Nature of the Universe (Same as Physics 330) (Not offered 1985-86.)
A journey through space and time from the first millionth of a second to the ultimate fate of the Universe billions of years in the future. Topics include conditions during the first three minutes; creation of the elements; the Big Bang and its remnant radiation; relativity and space-time; galaxies and quasars; the large scale structure of the Universe, past and present; current ideas about the future of the Universe and the end of time. Lecture and discussions, three hours a week. 

Not open to freshmen or sophomores. Non-major course. 

Prerequisite, a working knowledge of high school algebra. 

Closed to Physics majors and Astronomy and Physics majors.

Hour

ASTR 334 Exploration of the Universe (Same as Physics 334) (Will not be offered 1986-87.)
The period since the launch of Sputnik, including exploration of the moon by humans and exploration of the planets by robot spacecraft, has greatly deepened our understanding of the universe. In addition, orbiting telescopes have opened our eyes to regions of the electromagnetic spectrum inaccessible to ground-based instruments.
Course material will include the astrophysical, chemical and geological information derived from probes sent into the solar system. The flyby of Uranus by Voyager 2 and of Halley's comet by several spacecraft will both take place near the beginning of this course and we will look carefully at the available results. Earlier examples include studies of the magnetic field of Mercury, the atmosphere and surface geology of Venus, the Viking studies of Mars and its moons, the Voyager investigations of atmospheric circulation on Jupiter and Saturn, volcanic activity on Io, and current knowledge of Uranus, Neptune and Pluto. Our discussion of extra-solar system studies will include results from the Einstein Orbiting X-ray Observatory, an examination of SETI—our current attempts to search for signals indicative of the existence of extraterrestrial intelligence, and plans for the Space Telescope. In addition to one hour exam and a final exam, each student will prepare a detailed paper on some aspect of the course.

Lecture and discussion, three hours a week.

Not open to freshmen or sophomores. Non-major course.

No prerequisite.

PASACHOFF

[ASTR 410 Topics in Astrophysics (Same as Physics 410) (Not offered 1985-86.)

Concentration on a topic in astrophysics to be chosen in consultation with prospective students.

Seminar format, three hours a week.

Open to juniors. Prerequisites, Astronomy/Physics 111 or Astronomy 101, 102 with permission of the instructor and Physics 202. Either this course or Astronomy/Physics 412 is required of majors in Astronomy and Physics.

Hour]

ASTR 412 Solar Physics (Same as Physics 412) (Will not be offered 1986-87.)

A thorough study of the sun from its interior through the photosphere, chromosphere and corona. Topics include high-resolution studies of the surface, spectroscopy, sources of continuous and spectral-line radiation, the equation of transfer, sunspots, spicules, prominences, flares, constituents of the corona, solar-terrestrial relationships, relationships to other stars, the neutrino experiment and solar tests of relativity. Recent and pending observations from the ground, balloons, rockets, satellites and space probes, and at eclipses will be discussed.

Seminar with equal participation by students, three hours a week.

Open to juniors. Prerequisites, Astronomy/Physics 111 or Astronomy 101, 102 with permission of the instructor and Physics 202. Either this course or Astronomy/Physics 410 is required of majors in Astronomy and Physics.

Hour]

ASTR 493-W31, W31-494 Senior Research

An original experimental or theoretical investigation is carried out under the direction of a faculty member in Physics and Astronomy, as discussed under the heading of the degree with honors in Astronomy and Physics below.

Prerequisite, permission of the department.

Members of the Physics and Astronomy Department

ASTR 497, 498 Independent Study

Colloquia

The Faculty of the Physics and Astronomy Department meets weekly to discuss recently published and unpublished work. Members of other science departments and undergraduates are welcome and undergraduate majors are expected to attend.
ASTRONOMY and PHYSICS (Div. III)

MAJOR PROGRAM
Astronomy/Physics 111 Introduction to Astrophysics or Astronomy 101 and 102 with permission of the department
Physics 142 Mechanics and Special Relativity
Physics 201 Electric and Magnetic Theory
Physics 202 Waves, Optics and the Origin of Quantum Physics
Astronomy/Physics 410 Topics in Astrophysics or Astronomy/Physics 412 Solar Physics.

One additional upper level course in Astronomy.

Additional courses above the 100 level in astronomy or physics to bring the total number to nine or eight plus two courses in chemistry, geology or mathematics approved by the department.

Potential Astronomy and Physics majors should consult early on with the chair or other members of the department to determine their most appropriate route to and through the major. In particular, advanced standing freshmen who might be interested in placing out of Physics 142 should consult with the chair before registration in order to determine which of several possible course sequences best suits their needs and interests.

THE DEGREE WITH HONORS IN ASTRONOMY AND PHYSICS

The honors degree in Astronomy and Physics will be awarded on the basis of a senior thesis presenting the results of an original experimental or theoretical investigation carried out by the student under the direction of a faculty member in Physics and Astronomy. There will be no grade requirements (other than college-wide requirements for remaining in good academic standing) for entry into the thesis research program. Instead, those students who wish to enter the program will normally choose a thesis topic and a faculty adviser early in the second semester of their junior year, and will write a substantial report during that semester demonstrating that they have carried out a significant amount of background study and have defined a potentially successful thesis project. During the senior year those students whose preliminary proposals have been approved will elect two courses and a Winter Study Project in addition to the minimum requirements for the major. Preparation of the thesis will occupy at least one course (normally Astronomy 493) and the Winter Study Project. At the end of the Winter Study Period the department will decide, in consultation with the student, whether to admit that student to honors candidacy and whether the second course will be another semester of research and writing (normally Astronomy 494) or a course from the regular course offerings. Both a written thesis and a colloquium presentation of the results to faculty and fellow students are required, and the degree with honors will be awarded to those who meet these requirements with distinction. Honors candidates will also be required to participate in a departmental discussion program tied to colloquium talks. For approximately six selected colloquia each year, honors candidates (and other majors who so desire) will be expected to do some background reading and participate in both a pre-colloquium and a post-colloquium discussion to be led by a faculty member.

The department will be flexible with regard to the number and timing of courses devoted to thesis research within the general guidelines of two courses and a Winter Study Project over and above the minimum major requirements and the written and oral presentations, especially in cases of students with advanced standing and/or summer research experience. Students considering unusual requests are urged to consult with potential advisers or the department chairman as early as possible.

BIOCHEMISTRY AND MOLECULAR BIOLOGY

While Williams offers no formal program or major in biochemistry or molecular biology, there are excellent opportunities for completion of courses and full-year research projects in these disciplines in conjunction with a major in Biology or a major in
Biochemistry and Molecular Biology, Biology

Chemistry. Students can readily prepare themselves for graduate study in biochemistry, molecular biology or a related field or use undergraduate work in these subjects as preparation for the study of medicine or another health profession.

The relevant courses and faculty are found primarily in the Biology Department and the Chemistry Department. Students are urged to consult early in their academic careers with the faculty of either or both of these departments. There are listed below a group of core courses, all of which should be taken by a student interested in biochemistry or molecular biology. Beyond these basic courses, the student can select courses from both departments from the second list to suit their particular interests.

Students should look under Biology or Chemistry to determine the requirements for the major in either of those fields.

Core courses
- Biology 101 Cellular Biology and Biochemistry
- Biology 102 Inheritance, Development and Adaptation
- Biology 201 Cells and Organelles (in place of or in addition to Biology 101 and Biology 102)
- Biology 203 Genetics
- Chemistry 101-102 or 103-104 Concepts of Chemistry
- Chemistry 201-202 Organic Chemistry

Additional Courses
- Biology 252 Animal Physiology
- Biology 352 Developmental Biology
- Biology 371 Advanced Cellular Biochemistry
- Biology 372 Immunology
- Biology 374 Advanced Molecular Genetics
- Chemistry 303 Advanced Organic Chemistry
- Chemistry 306 Physical Chemistry: A Biochemical Approach
- Chemistry 403 Biochemistry: A Study of the Molecules of Life
- Chemistry 404 Biochemical Reactions of Living Cells

A research project, completed in either department leading to a degree with honors, can be a particularly rewarding experience. At that level, collaboration between the students and faculty in the two departments can be frequent and productive.

Biology 493-W31-494 Senior Thesis
Chemistry 493-W31-494 Senior Research and Thesis

In addition, courses in computer science, mathematics and physics should be selected to broaden and strengthen the students' background.

BIOLOGY (Div. III)
Departmental Staff for 1985-86

Chair, Professor HENRY W. ART

Professors: ART, DEWITT, DRICKAMER, GRANT. Assistant Professors: ALTSCHULER, EDWARDS, LYNES, SLOCUM, D. C. SMITH, ZOTTOLI. Part-time Lecturer: E. BROWN.

The Biology major is designed to provide an understanding of the principles that govern the activities of living systems. Students majoring in Biology or those electing courses in Biology independently of the major may select from a wide range of courses dealing with cells, organisms, populations and ecosystems. The work in the major provides a good background for those planning to enter graduate school, medical school, veterinary science, environmental studies or related fields.
Biology

Because the field of biology is so diverse, major requirements have been kept as flexible as possible while at the same time encouraging students to explore the diversity of course offerings. Students wishing a biology major as a background to future occupations or advanced study should consult with members of the department in choosing courses. All potential Biology majors are encouraged to take introductory Chemistry and Mathematics. Students planning graduate work in Biology are advised to elect courses in organic chemistry, introductory physics and mathematics.

MAJOR PROGRAM

Sequence courses

- Biology 101 Cellular Biology and Biochemistry or Biology 201 Cells and Organelles
- Biology 102 Inheritance, Development and Adaptation
- Biology 203 Genetics
- Biology 407 (formerly 331) Evolution or 404 Endocrinology or 408 Theoretical Cellular Biology: Selected Topics or 451 The Neurosciences: Regeneration Within the Central Nervous System

(NOTE: Seniors may elect to take more than one 400 level course.)

Parallel courses

Any two 300 level courses, and any other three courses (or any other two courses and Chemistry 201-202 or American Maritime Studies 221).

(NOTE: Independent study courses do not count as 300 level course requirements in the major.)

Distributional requirement

In order to complete the Biology major, a student must take at least one course from Group A (organism level and above) and one course from Group B (below the organism level). See course descriptions for group designations. American Maritime Studies 221 is included in Group A.

Numbering system

In the tens place of a course number 0—required major course, 1—ecology, 2—taxonomy, 3—evolution, 4—organismic biology, 5—physiology and development, 6—cells and tissues, 7—biochemistry and immunology, 8—courses for non-majors, and 9—independent project.

NOTE TO FRESHMEN: The normal introductory sequence is Biology 101, 102. However, starting in 1986-87, entering freshmen with previous experience in biology and receiving a score of 4 or 5 on the CEEB-AP exam will be placed in Biology 201 which satisfies the Biology 101, 102 requirement for the major. In the spring semester those freshmen may elect any course in the department having an introductory biology prerequisite or take Biology 102.

Courses of Special Interest for Non-Majors

Students can explore various aspects of biological thought by taking the freshman courses Biology 101, Cellular Biology and Biochemistry, and Biology 102, Inheritance, Development and Adaptation; upperclassmen may elect Biology 281, Evolution and Natural History and Biology 282 (formerly 200), Human Biology and Social Issues. Biology/Environmental Studies 213, Environmental Biology; Biology 217, Primate Biology and Behavior; Biology 220, Field Botany and Plant Taxonomy and Biology/Environmental Studies 312, The Ecology of Biological Resources are open to upperclassmen without prerequisite with permission of the department. These courses, which satisfy Division III requirements, enroll both science and non-science majors and are designed to stimulate exchange of view between the two groups. Biology/Environmental Studies 213 is a required course in the Coordinate Program in Environmental Studies.
THE DEGREE WITH HONORS IN BIOLOGY

In order to be recommended for the degree with Honors a student is normally expected to have completed, in addition to the regular major requirements, the equivalent of two semesters and a Winter Study of independent research culminating in a thesis, which demonstrates outstanding achievement of an original and innovative nature. Presentation of a thesis, however, should not be interpreted as a guarantee of a degree with Honors. The principal considerations in admitting a student to the program of independent Honors research will be mastery of fundamental material and skills, ability to pursue independent study successfully, and demonstrated student interest and motivation. Students anticipating participation in the Honors program should consult with the Department prior to spring break and approval must be received before spring registration of their junior year.

BIOCHEMISTRY AND MOLECULAR BIOLOGY

Students interested in Biochemistry and Molecular Biology should consult the general statement under Biochemistry and molecular Biology.

PSYCHOBIOLOGY

Psychology or Biology majors may emphasize studies in the area of Psychobiology. Interested students are encouraged to consult members of either Department in choosing courses. Recommended courses include Biology 217, Primate Biology and Behavior; Biology 215 (formerly 212F), Animal Behavior: Evolution and Function; Biology 351, Neurobiology; Psychology 212, Brain and Behavior; Psychology 211, Animal Behavior: Causation and Development; Psychology 203, Principles of Learning; Psychology 311, Neural Basis of Learning and Memory; Psychology 312, Issues in Comparative Psychology (Deleted 1985-86.) Other courses may be selected according to the student's interests.

BIOL 101 Cellular Biology and Biochemistry

Designed for beginning students, this course provides an introduction to modern cellular biology. It attempts to explain the development of cellular structure and function as a consequence of evolutionary processes occurring on the lifeless earth. Topics to be considered will include the origin of life, energy relationships in living systems, cellular structure, cellular metabolism and membrane transport. Lectures and laboratory, six hours a week. Prerequisite, Quantitative Studies 100 (or demonstrating basic proficiency in diagnostic test—see Quantitative Studies).

Hour Lab. sections:  
ALTSCHLER

BIOL 102 Inheritance, Development and Adaptation

This course is designed to provide an introduction to the diversity of organisms through an exploration of mechanisms of heredity, the development of multicellular structures, and adaptations to the environment. Examples will be drawn from all kingdoms, and will emphasize the integration of cellular activity within the organism and the interaction of organisms with their environments. Prerequisite, Biology 101 or equivalent.

Hour Lab. sections:  
EDWARDS

[Biol 201 Cells and Organelles (Not offered 1985-86.)]

Designed for advanced introductory students, this course will review basic principles of cellular structure, physiology and biochemistry. Emphasis will be placed on studying the functional interrelationships of the various intracellular structures. Laboratory will include techniques in microscopy, cell fractionation and organelle isolation. Prerequisites, Biology 101 and 102 or score of 4 or 5 on the CEEB-AP exam. In 1986-87 this course will be limited to freshmen.

Hour Lab sections:  
DEWITT]
BIOL 203  Genetics
In this course we will undertake an intensive study of genetic mechanisms and their
effects on the structure and function of organisms. Molecular characteristics of the ge-
etic material, mutations, regulation of cellular activity, genetic effects on populations
and genetic engineering are among the topics to be considered. Laboratory work demonstra-
tes the experimental methods of the geneticist: ranging from mating analysis to endonuclease digestion analysis of DNA.
Lectures and laboratory, six hours a week.
Prerequisites, Biology 101 and 102 or 201.

Hour  Lab. sections:  LYNES

BIOL 211(S)  Principles of Paleontology (Same as Geology 211)
(See under Geology for complete description.)
Group A  Prerequisites, Biology 101 and 102 or 201 or any 100 level geology course.

BIOL 213  Environmental Biology (Same as Environmental Studies 213)
A study of factors which determine the distribution and abundance of organisms in
natural systems. Topics will include global patterns; population dynamics (growth, com-
petition, predation and co-evolution); community interactions (succession, food chains
and diversity); and ecosystem function (biogeochemical cycles and energy flow).
Lectures and laboratory, six hours a week.
Group A  Prerequisites, Biology 101 and 102 or 201 or Environmental Studies 101 or
consent of the department. Required course in the Environmental Studies Program.

Hour  Lab. sections:  ART

BIOL 215 (formerly 212F) Animal Behavior: Evolution and Function
(Not offered 1985-86.)
An exploration of animal actions and activities with emphasis on the functional
importance and evolution of behavior. Introductory material includes treatment of evo-
lation, approaches to the study of animal behavior and mechanisms underlying behav-
ior. This leads to consideration of the adaptive significance and evolution of behaviors
of individuals, including sex, aggression, communication and migration. This is fol-
lowed by treatment of topics in behavioral ecology pertaining to feeding relationships,
habitat selection and population regulation. The course concludes with examination of
social behavior and the concepts of modern sociobiology. The course emphasizes the man-
ner in which questions are formulated in animal behavior and the methods and proce-
dures used to answer these questions. Two hour examinations and a final examination.
Lectures and laboratory, six hours a week.
Group A  Prerequisite, Biology 101 or Psychology 101 or permission of the instructor.

Hour  Lab. section: Arr.  DRICKAMER

BIOL 217  Primate Biology and Behavior (Will not be offered 1986-87.)
An examination of the primates with special reference to behavior. Introductory ma-
terial covers aspects of mammalian and primate evolution, including evolution of man.
Emphasis is placed on the contributions that primate studies make to our understand-
ing of the human species by examining the behavior of individuals (e.g., sex, aggres-
sion, communication), social behavior and the significance of sex differences. Some
comparisons with the behavior of early man and contemporary human societies are
attempted. Current topics of interest such as sociobiology and the evolutionary basis for
and meaning of race and sex differences are also treated. Films are used extensively for
providing experience with primates in natural settings. One hour examination and a
final examination, plus an optional paper.
Lectures and discussions, three hours a week.
Group A  Prerequisite, none.

Hour  DRICKAMER

90
[BIOL 220] Field Botany and Plant Taxonomy [Not offered 1985-86.]
This field-lecture course emphasizes the evolutionary and ecological relationships among plants at the species and family levels. Topics will include: the use of taxonomic keys, methods of plant collection, use of the herbarium, morphological characteristics of plant families, and sight identification of species of woody and herbaceous plants common in the vicinity of Williamstown.
Lectures, field trips, six hours a week.
*Group A* Prerequisite, none.
*Hour Lab. section:* ART

Focusing on the question of why the vertebrate plan has been so successful, this course will study the structure and function of vertebrates from their origins to the present. Evolutionary and ecological perspective will be applied to selected topics which will include a survey of the major characteristics of each vertebrate class; evolution and adaptation of vertebrates in aquatic environments; life on land and the origin of tetrapods; special aspects of vertebrate regulatory physiology, selected adaptations for feeding, locomotion, temperature regulation and reproduction, etc., the dinosaur problem and consideration of the human as a vertebrate animal. The laboratory program includes dissection of selected vertebrate types and study of a wide range of vertebrate adaptions.
Lectures, laboratory, discussions and readings, six hours a week.
*Group A* Prerequisite, Biology 203 or 252.
*Hour Lab. section:* GRANT

252 Animal Physiology
This course will provide the basic physical and chemical principles which underlie animal function from subcellular to whole animal levels. Comparative aspects of physiology will be examined utilizing examples from invertebrates and vertebrates. The main emphasis will be placed on the experimental elucidation of ideas and homeostatic principles of animal function. Laboratory work is designed to compliment the lectures by allowing research experience on a variety of animal models.
Lectures and laboratory, six hours a week.
*Group B* Prerequisites, Biology 101 and 102 or 201.
*Hour Lab. sections:* ZOTTOLI

[BIOL 254] Plant Physiology [Not offered 1985-86.]
Physiological and biochemical aspects of the growth, development, nutrition and reproduction of green plants. Major topics covered will include plant cell structure and function, ion transport and water relations, nitrogen metabolism, photosynthesis and carbon metabolism, plant hormones, and host-pathogen relationships. The laboratory will illustrate a variety of experimental approaches to problems in plant physiology.
Lectures and laboratory, six hours a week.
*Group B* Prerequisites, Biology 101 and 102 or 201.
*Hour Lab. sections:* SLOCUM

[BIOL 261] Histology [Not offered 1985-86.]
Histology is a subdivision of anatomy concerned with minute parts beyond the reach of the unaided eye. The microscopic structure of tissues and their relation to certain organ systems will be discussed in the context of original scientific literature. Emphasis will be placed on techniques of tissue preparation and light microscopy. Laboratories will include instruction in a variety of histological techniques including preparation, sectioning and staining of biological material for light microscopy.
Lectures and laboratory, six hours a week. *Enrollment limited to 20.*
*Group B* Prerequisite, Biology 101 and 102 or 201 or permission of instructor.
*Hour Lab section:*
BIOL 281  Evolution and Natural History
Designed for the non-scientist, this course will explore the concept of natural history from social and scientific perspectives by tracing its emergence in ancient societies, its essential contributions to development of evolutionary theory and the role it continues to play in our understanding of the relationship of man to other life forms. Topics covered will include a review of the nature writers from Gilbert White to Stephen Jay Gould, origin of life, evolution of sex, the time course of evolution including a new look at dinosaurs, the phenomenon of extinction, domestication of plants and animals and a range of evolutionary life styles which adapt organisms to special and often extreme environments such as the arctic, deserts, ocean depths and rain forests. In addition the future of natural history and its social implication will be considered through discussions on emergent evolution, ageing and longevity, artificial breeding, wildlife management and the plight of endangered species including our own.
Lectures, three hours a week.
No prerequisite. Closed to freshmen. Does not count for major credit in Biology.

BIOL 282 (formerly 200)  Human Biology and Social Issues
Designed for the non-scientist, this course will explore the biological foundations of selected topics that are currently of great social importance. Beginning with a discussion of the functioning of the human body, topics will include human genetics, its medical-legal aspects, the basis of genetic disease, and problems related to genetic engineering and DNA recombinant research; human reproduction, developmental abnormalities, and the social and biological significance of birth control and abortion; human disease transmission and control; organ transplants; cancer; aging; death and the use of life support systems.
Lectures, three hours a week.
Prerequisite, none. Closed to freshmen; closed to biology and chemistry majors; not appropriate for premedical students; does not count for Biology major credit.

BIOL 310  Communities and Ecosystems (Will not be offered 1986-87.)
This advanced course is an intensive investigation of the nature of plant communities and ecosystems. Field research will be conducted in the Hopkins Forest as well as a variety of other biotic communities in the region to elucidate spatial and temporal patterns, relationships among aggregations of species, determinants of ecosystem composition and structure. Other topics to include: biogeography, stability and diversity, and land-use history.
Lectures, discussions and field trips, six hours a week.

Group A  Prerequisite, Biology 213 (formerly 201) or 220 or permission of the instructor.

BIOL 333  Sociobiology
Sociobiology, an emerging subdiscipline, is defined as the study of the biological bases for and evolution of social behavior in animals. We begin by introducing the
principles of sociobiological theory, followed by an examination of various points of view encompassing both the value of the theory in interpreting social behavior and criticisms of its bases and applications. Both the biological and anthropological perspectives will be stressed. Additional topics will include the use of sociobiology as a theoretical and experimental framework for investigations of animal ecology and human biology.

Requirements, one midterm examination, one paper and a final exam.

Open to sophomores.

Group A  Prerequisite, Biology 101 and 102 or 213 or 215 (formerly 212F) or Anthropology 101 or permission of the instructor.

Hour

[BIOL 351 Neurobiology (Not offered 1985-86.)]

The physiology of vertebrate and invertebrate nervous systems, with an emphasis on the cellular basis of neuronal function. A series of formal lectures will include such topics as nerve resting and action potentials, transmitters and synapses, information processing and integration and neural correlates of behavior. Reading original research papers, discussing them in a seminar format and writing short synopses of them will constitute an important part of the course. Some of the topics that may be covered include: transmitter release mechanisms, neural development and its control, neural control of movement and movement disorders such as Parkinson’s disease. Laboratory exercises include formal exercises designed to introduce the student to extra- and intracellular recording techniques and a relatively open project toward the end of the semester.

Lectures, seminars and laboratory, six hours a week.

Group B  Prerequisite, Biology 252. Open to sophomores who meet the prerequisite.

Limited to 20 students with seniors receiving preference.

Hour  Lab. sections:

BIOL 352 Developmental Biology

An introduction to principles of development: descriptive embryology of vertebrates and invertebrates is correlated with classic and contemporary research on causal mechanisms of development. Topics emphasized include cellular differentiation in animals and plants, organogenesis, morphogenesis, developmental genetics, tumor formation, growth, self-assembly regeneration and pattern formation. Laboratory involves detailed study of embryonic structures as well as experimental work with living embryos.

Lectures, discussions and laboratory, six hours a week.

Group B  Prerequisite, Biology 203. Open to sophomores who meet the prerequisite.

Hour  Lab. section:

BIOL 360 Electron Microscopy

The development of instruments with greater resolving power than the light microscope have revolutionized our understanding of cellular ultrastructure. This course enables students to gain laboratory experience in the preparation, sectioning and staining of tissue for observation on the transmission and scanning electron microscopes. The objective of this course is to analyze student prepared micrographs in relation to those found in the literature. Lectures will include discussion of preparatory technique and micrograph interpretation.

Lectures and laboratory, six hours a week.

Group B  Prerequisites, Biology 101 and 102 or 201.  Enrollment limited to 20 students with preference to seniors.

Hour  Lab sections:

BIOL 371 Advanced Cellular Biochemistry

This course explores the organization and functions of living cells at the molecular level. It covers the fundamentals of biochemistry with emphasis on the nature of biological molecules, the physical and chemical processes which maintain the living state,
Biology

and the elegant ways in which cellular processes are self-regulated. The course includes advanced treatment of the following subjects: the structure, evolution and chemistry of proteins; enzymes (including the kinetics of enzyme-catalyzed reactions); membranes; organelles; and the major metabolic pathways. The laboratory provides the opportunity to learn experimental techniques in cell biochemistry including quantitative analysis of proteins, organelle isolation, determination of enzyme activity and kinetics, and separation of proteins using gel filtration, electrophoresis and affinity chromatography. Lectures and laboratory, six hours a week.

Group B  Prerequisites, Biology 101 and 102 or 201; Chemistry 201-202 or permission of the instructor.

Hour  Lab. sections:

BIOL 372  Immunology

The immune system enables an organism to distinguish between "self" and "non-self" and to respond to those entities which are recognized as "non-self". This course will investigate the basic mechanisms which comprise the immune response and how these mechanisms are regulated at genetic, molecular and cellular levels. Textbook readings will be supplemented by current literature.

Laboratory experiments will give the student experience with animal handling and basic immunological techniques.

Lectures and laboratory, six hours a week.

Group B  Prerequisite, Biology 203.

Hour  Lab sections:

BIOL 374  Advanced Molecular Genetics

An analysis of genetic function including DNA replication and repair; mutagenesis; molecular mechanisms of recombination; transcription and messenger RNA structure; post-transcriptional processing and translation of messenger RNA; ribosome structure and function; gene and chromosome structure; and mechanisms of gene expression.

Lectures and laboratory, six hours a week.

Group B  Prerequisite, Biology 203.

Hour  Lab sections:

BIOL 404  Endocrinology

This course, consisting of lectures, discussions and readings in the original literature, will synthesize material from physiology, biochemistry and cell biology to provide an integrated picture of endocrine control systems in animals. Topics include structure, function and regulation of vertebrate and invertebrate hormones; biochemical mechanisms of hormone action; integration of the neural and endocrine systems; and recent advances in hormone research. Attendance at all Departmental Colloquia is expected.

Lectures and discussions, three hours a week.

Group B  Prerequisites, Biology 252 and 203. Admission limited to seniors. Enrollment limited to 15. This course or Biology 407 (formerly 331) or 408 or 451 required of all senior majors.

Hour  Lab sections:

BIOL 407 (formerly 331)  Evolution

A critical analysis of evolutionary mechanisms. The course examines current challenges to Darwinian theory. Topics include adaptation, evolutionary change, speciation and the origin of major groups. Selected problems are discussed, including the origin and maintenance of life histories, social behavior and sexual reproduction. Lectures, seminars and reading in the original literature, three hours a week.

Admission limited to seniors. Enrollment limited to 15. Attendance at all Departmental Colloquia is expected. This course or Biology 404 or 408 or 451 is required of all senior majors.

Group A  Prerequisite, Biology 203 taken previously or concurrently or permission of the instructor.

Hour  Lab sections:
BIOL 408  **Theoretical Cellular Biology: Selected Topics**

A seminar course that introduces the student to modes of theoretical analysis in biology by examining certain of the “unifying” concepts of the life sciences in light of recent findings in molecular, cellular and developmental biology. The topics selected concern ideas on the relationships of genes, cells, embryos, organismic phenotypes and evolution. Emphasized are the relationships of genotype to phenotype, the question of a genetic “program” for embryonic development and the production of organismic form and how current research on these problems may bear on evolutionary concepts. The intent of this course is to allow the student to explore—mainly through readings in the original literature—theoretical analyses, criticisms, controversies and unorthodox proposals about these “unifying” concepts.

Requirements, participation in discussions and seminars, one written examination and one term paper. Attendance at all Departmental Colloquia is expected.

Discussions and seminars, three hours a week.

*Group B*  
Prerequisite, Biology 203. Admission limited to seniors. *Enrollment limited to 15.* This course or Biology 404 or 407 *(formerly 331)* or 451 is required of all senior majors.

*Hour*  

VANKIN

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BIOL 451 **The Neurosciences: Regeneration Within the Central Nervous System (Offered only in 1985-86.)**

This course will consider current research on the response of neurons within the central nervous system to injury. The initial focus will be on studies using neurons of invertebrates and lower vertebrates. Special emphasis will be placed on the Mauthner cells of fish and amphibians, neurons that have been used extensively in Neurobiology as a model system to answer many fundamental questions. The material covered in the initial phase of the course will be used as a basis to discuss regeneration studies of the mammalian peripheral and central nervous systems. We will consider the following question: “What prevents functional regeneration of nerve cells within the mammalian central nervous system? Students will give a series of brief presentations, write short papers based on the presentations and submit a research proposal designed to answer a question raised in the seminar.

Prerequisite, Animal Physiology and Neurobiology or an equivalent exposure to the Neurosciences and permission of the instructor. *Enrollment limited.* This course or Biology 404 or 407 *(formerly 331)* or 408 is required of all senior majors.

*Hour*  

ZOTTOLI

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**RESEARCH AND THESIS COURSES**

Individual research projects must be approved by the department. Application should be made to the department prior to spring registration.

NOTE: Senior thesis and independent study courses do not count as 300 level course requirements for the major.

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BIOL 493-W31-494 **Senior Thesis**

Each student continues with a problem selected in the spring of the junior year and prepares a thesis under the supervision of a member of the department.

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BIOL 397, 398 **Independent Study—Junior year**

BIOL 497, 498 **Independent Study—Senior year**

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**GRADUATE COURSE**

BIOL 501-502 **Advanced Experimental Biology**

Modern techniques and recent developments of selected biological problems. The nature and scope of the problems and the methods employed to study them will be
Biology, Chemistry

varied to suit the needs and background of the student in preparing him for further graduate work in the field.

Members of the Department

CHEMISTRY (Div. III)
Departmental Staff for 1985-86

Chair, Professor James F. Skinner


MAJOR PROGRAM

Through a variety of individual courses and sequential programs, the Department provides an opportunity for students to explore the nature and significance of chemistry, an area of important achievement in our quest for knowledge about ourselves and the world around us. The student is able to become aware of the special viewpoint of chemists, the general nature of chemical investigation, some of the important results, how these results are expressed and something of their significance within the fields of science and in the area of human endeavor as a whole.

A major in chemistry can be achieved in several ways, preferably beginning in the freshman year, but also beginning in the sophomore year. Building on a required foundation in general chemistry, organic chemistry and physical chemistry, a student elects additional advanced courses to complete a major that is consistent with his or her background in other sciences, interests and goals. A student's program might emphasize biochemistry (see the section on Biochemistry and Molecular Biology), organic chemistry or physical chemistry, with additional courses available in analytical chemistry, inorganic chemistry and environmental chemistry. Students considering a major in chemistry should consult with a member of the Department as early as possible in order to plan a program which best suits their interests and abilities and which makes full use of their previous preparation.

Required Courses

Chemistry 101-102 (or 103-104) Concepts of Chemistry
Chemistry 201-202 Organic Chemistry
and either
Chemistry 301, 302abc Physical Chemistry: Thermodynamics, Structure and Dynamics
or
Chemistry 306ab Physical Chemistry: A Biochemical Approach
and
at least three electives, including one 400 level course from a.

Elective Courses

Chemistry 303 Advanced Organic Chemistry
Chemistry 304 Modern Chemical Instrumentation
Chemistry 305 Inorganic Chemistry
Chemistry 401 Quantum Chemistry and Molecular Spectroscopy
Chemistry 402 Physical-Organic Chemistry
Chemistry 403 Biochemistry: A Study of the Molecules of Life
Chemistry 404 Biochemical Reactions of living Cells

a The numbering of the courses reflects the prerequisites involved but does not dictate the year in which a student should elect a given course, presuming the prerequisites
have been fulfilled. In some instances, it can be advisable for a student to elect organic chemistry and physical chemistry simultaneously in the sophomore year. The discussion below in regard to graduate school and the importance of Chemistry 301, 302 should be noted.

If a student elects Chemistry 306, he or she must select four courses from the list of electives or three electives and two semester courses from among the following: Biology 101, 102 or higher; Mathematics 107, 108; Physics 131, 132 or higher.

If a student elects Chemistry 301, 302, he or she must select three courses from the list of electives or two electives and two semester courses from among the following: Biology 101, 102 or higher; Mathematics 107, 108; Physics 131, 132 or higher.

For the purpose of assisting a student in selecting a program consistent with their interests, the following groupings of electives are suggested. However, a case can be made for selecting courses from the different groups.

Biochemistry: Chemistry 303, Chemistry 403, Chemistry 404
(Students interested in biochemistry should consult with Mr. Burke or Mr. Kaplan.)

Organic Chemistry: Chemistry 303, Chemistry 402
(Students interested in organic chemistry should consult with Mr. Blatchly or Mr. Markgraf.)

Physical and Inorganic Chemistry: Chemistry 304, Chemistry 305, Chemistry 401
(Students interested in physical chemistry should consult with Mr. Chang, Ms. Halstead, Mr. McMahon, Mr. Moomaw or Mr. Skinner. Students interested in inorganic chemistry should consult with Ms. Sedney or Mr. Tikkanen.)

With advanced placement credit and the permission of the Department, it is possible to elect during the freshman year Chemistry 201-202, Organic Chemistry, or one of the courses in physical chemistry.

The chemistry major provides excellent preparation for graduate study in chemistry, biochemistry, chemical engineering, environmental science, medicine and the medical sciences. The major can also be useful to those whose later professional or business careers may be related to chemical materials or processes. While any accepted route through the major would permit a student to proceed to graduate study in chemistry, three electives should be considered a minimum, and the particular importance of Chemistry 301, 302 and 304 as preparation for advanced study should be noted. In addition, at least a semester of research in chemistry and courses in computer science are strongly recommended. For a student planning graduate study in chemistry a reading knowledge of German, Russian or French is also recommended.

Students with principal interests outside of the sciences may extend a secondary school foundation in chemistry by electing a basic two-semester introductory course of a general nature or they may elect semester courses designed for nonmajors. Chemistry 200, The Environment and the Physical Sciences, may be incorporated into the program in environmental Studies. All courses in chemistry satisfy the Division requirement.

The Department is accredited by the American Chemical Society (A.C.S.), a professional body of academic, industrial and research chemists. The A.C.S. suggests the following courses for someone considering graduate study or work in chemistry or a related area. Students completing these courses are designated Certified A.C.S. Majors: 101-102 [103-104], 201-202, 301, 302, 304, 305 and at least two courses from 303, 401, 402, 403, 404 (and their prerequisites in mathematics and physics).

THE DEGREE WITH HONORS IN CHEMISTRY

The Degree with Honors in Chemistry provides students with an opportunity to undertake an independent research project under the supervision of a staff member, and to report on the nature of the work in two short oral presentations and in a written thesis.
Chemistry

Chemistry majors who are candidates for the Degree with Honors take the following in addition to a major program listed above:

Chemistry 493-W31-494 Senior Research and Thesis with Senior Year Winter Study Project in Research and Thesis. The opportunity to undertake research and thesis work in the junior year is available to specially qualified students.

The Honors degree is awarded for academic achievement of an original and innovative nature, and the degree with Highest Honors for work of a truly outstanding nature. In order to be recommended for the Degree with Honors, a student is normally expected to have completed the equivalent of two semesters and a WSP of independent research culminating in a thesis which is judged to be acceptable by the Department. The principal considerations in admitting a student to a program of independent research will be mastery of fundamental materials and skills, ability to pursue independent study successfully and demonstrated student interest and motivation. Under exceptional circumstances the Department may accept proposals other than a thesis which testify to high levels of performance. Such alternatives should be discussed with the chair before the end of the student's junior year.

EXCHANGE AND TRANSFER STUDENTS

Students from other institutions wishing to register for courses in chemistry involving college level prerequisites should do so in person with a member of the Chemistry Department staff. Registration should take place by appointment during the spring semester prior to the academic year in which courses are to be taken. Students are requested to have with them transcripts of the relevant previous college work.

COURSES FOR NON-MAJORS WITH NO PREREQUISITES

CHEM 117 Consumable Chemicals

Do you know what chemical substances you consume everyday? By looking at the list of ingredients, could you distinguish coffee creamer from rat poison? Are natural foods free of harmful chemicals? Why should you be concerned about your consumption of cholesterol? What happens to alcohol in your body between Saturday night and Sunday afternoon? What is the “extra ingredient” in Anacin and what, if anything, does it do?

In this course, designed for students with little or no background in science who do not intend to pursue a career in the natural sciences, we seek the answers to these and other questions concerning the chemicals which we consume. Students are encouraged to analyze and critically examine their personal consumption of nutrients, drugs and other substances. We examine the spectrum of prescription, nonprescription and illicit drugs used in modern society. We also look at the chemical substances which are present in our diet, both those which occur “naturally” (e.g., vitamins, carbohydrates, proteins and fats) and those which are “artificially” added (e.g., preservatives, sweeteners and pesticides). Topics include the chemistry, biological activity and history of such substances as alcohol, caffeine, nicotene, narcotics, marijuana and antibiotics. The effects of diet and drug consumption on athletics, cancer, cardiovascular disease, aging, mental health and mental acuity is also examined.

Lectures, three hours a week, no laboratory.

BURKE

CHEM 118 Chemistry Demonstrated

This course is designed for students with little or no background in science who do not intend to pursue a career in the natural sciences. Chemistry involves the study of the interaction of different forms of matter and energy in countless ways that are important in our world. Often, however, one’s initial experience with chemistry is unrewarding because the concepts of chemistry are not presented in a manner to which the student can relate. This intellectual frustration is unnecessary. The faculty of this department have developed numerous molecular models, demonstrations and simple experiments to illustrate the important ideas of chemistry. The use of these demonstrations is an
integral part of every class presentation, with student participation encouraged. The basic ideas of atomic structure, molecular geometry, chemical reactivity and chemical equilibrium are introduced, with examples drawn from familiar chemical and physical phenomena. No background in chemistry is necessary.

Lectures, three hours a week. Interested students could perform optional laboratory experiments.

Hour

**CHEM 200 The Environment and the Physical Sciences**

The purpose of this course is to provide the perspective of the physical sciences for an understanding of the natural and manmade environment and our relationship to it. The chemical nature and interactions of organisms, ecosystems and technological systems are studied. Case studies of the presence and effect of pesticides, drugs, chemical carcinogens, mutagens, radioactive residues, combustion products and other chemical substances in our air, water and land environment illustrate a range of environmental issues. Students are encouraged to develop an ability to assess critically scientific and technical arguments pertaining to current environmental problems. The role of scientific laws in determining natural and technological processes and the limitations these laws place on solutions to environmental problems are discussed. This course is suitable for students not majoring in the sciences.

Lectures, three hours a week. Although no laboratory is required, interested students may undertake an individual or group project in place of a paper.

Hour

**COURSES WITH PREREQUISITES**

**CHEM 101-102 Concepts of Chemistry**

The aim of this course is to provide a general introduction to chemistry for those students who are anticipating professional study in chemistry, in related sciences, or in one of the health professions, as well as for those students who are interested in exploring the fundamental ideas of chemistry as part of their general education. In addition to presenting an overview of chemical concepts, the course provides the foundation for the further study of organic and physical chemistry, and it gives special attention to the principles of qualitative and quantitative analysis.

The principal topics include chemical bonding, molecular structure, stoichiometry, chemical equilibrium and related applications.

Laboratory work comprises a system of qualitative analysis and quantitative techniques, including electrical and spectrophotometric measurements.

Lectures, three hours a week; laboratory, three hours a week.

Prerequisite, Quantitative Studies 100 (or demonstrating basic proficiency in diagnostic test—see Quantitative Studies).

Note: Students who have not had secondary school chemistry must consult with the instructor.

Hour

Lab. sections: First semester: J. Skinner

Second semester: L. Kaplan

**CHEM 103-104 Concepts of Chemistry: Advanced Section**

The aim of this course, closely paralleling that of Chemistry 101-102, is to provide a firm foundation in chemistry for those students who are anticipating professional study in chemistry, in related sciences, or in one of the health professions, as well as for those students who are interested in exploring in some depth the fundamental ideas of chemistry as part of their general education. The course is designed to capitalize on the background of those students with sound preparation in secondary school chemistry and to provide maximum diversity and depth of coverage. The course provides the foundation for the further study of organic and physical chemistry, and it gives special attention to the principles of qualitative and quantitative analysis.
Chemistry

The principal topics include modern atomic theory, molecular structure, states of matter, chemical equilibrium, thermodynamics, kinetics and stoichiometry, and applications drawn from areas of contemporary interest including biochemistry and the environment.

Laboratory work comprises a system of qualitative analysis and quantitative techniques, including electrical and optical measurements.

Lectures, three hours a week; laboratory, three hours a week.

Permission of the instructor required.

CHEM 201-202 Organic Chemistry

This course provides the necessary background in organic chemistry for students who are planning advanced study or a career in chemistry, the biological sciences or the health professions. It comprises the systematic study of the common classes of organic compounds with emphasis on theories of structure and reactivity. The coordinated laboratory work includes organic synthesis, structure-reactivity studies and the identification of unknown compounds.

Lectures, three hours a week; laboratory, four hours a week.

Prerequisite, Chemistry 101-102 (103-104).

Hour Lab. sections:

CHEM 301, 302 Physical Chemistry

The following two courses provide a thorough introduction to physical chemistry. Students who wish to explore the physical aspects of chemistry in greater depth than provided by 306 are urged to consider 301, 302. The pattern of course elections is particularly appropriate for those students who have taken Chemistry 103-104.

The focus of thermodynamics in 301 makes this course of special interest to students considering careers in biochemistry, biology, geology, engineering and physics. Freshmen, sophomores and other students not meeting the formal prerequisites listed below, but who possess the basic skills provided by those courses, may register for 301 with the instructor’s approval.

CHEM 301 Physical Chemistry: Thermodynamics

The thermodynamic laws provide us with our most powerful and general scientific principles for predicting the direction of spontaneous change in physical, chemical and biological systems. This course develops the concepts of energy, entropy, free energy, temperature (and absolute zero), heat, work and chemical potential within the framework of classical thermodynamics and interprets them in terms of molecular models. Students will also be introduced to recent developments in irreversible thermodynamics. The principles developed will be applied to a variety of problems: chemical reactions, phase changes, bioenergetics, energy technology and environmental science. Laboratory experiments provide quantitative and practical demonstrations of the theory of real and ideal systems studied in class.

Lectures, three hours a week; laboratory, four hours a week.

Prerequisites, Chemistry 101-102 (103-104), a basic knowledge of applied integral and differential calculus such as provided by Mathematics 107, 108 and some basic mechanics such as provided by Physics 131, 132 or 142.

Hour Lab. section:

CHEM 302 Physical Chemistry: Structure and Dynamics

This course integrates a number of physical chemistry topics. An introduction to quantum mechanics provides students with the basis for understanding molecular structure. Statistical mechanics is then used to demonstrate the formal and quantitative link between the properties of single molecules and the thermodynamic and kinetic behavior of macroscopic collections of molecules. Rate laws and enzyme kinetics are discussed. Applications of these principles are chosen from a variety of areas, including polymer chemistry, biochemistry, oscillating chemical reactions and solid and liquid state chem-
Chemistry

Quantitative laboratory experiments and consultation with the scientific literature provide the background necessary for carrying out a theoretical or experimental project. Lectures, three hours a week; laboratory, four hours a week.
Prerequisite, Chemistry 301.

Hour Lab. section: Chang

CHEM 303 Advanced Organic Chemistry

The emphasis of this course is on the organic chemistry of natural products. The course will, therefore, give an operating definition of natural products and will show how selected materials are produced in nature. Both biosynthetic and synthetic studies of terpenes, polypeptides, heteroaromatic compounds and alkaloids will be discussed. Stereochemical topics will be emphasized, allowing comparison of synthetic and biosynthetic techniques. The effect of molecular structure on reactivity and other properties will be a constant, underlying theme. Several total syntheses will be examined in detail for style, strategy and methods used. Each student chooses an article from the recent literature and in a term paper analyzes the approaches involved. Laboratory sessions expose students to synthetic and purification techniques for natural products, as well as introducing them to the chemical literature.
Lectures, three hours a week; laboratory, four hours a week.
Prerequisite, Chemistry 201-202. Open to sophomores with permission of the instructor.

Hour Lab. section: Blatchly

CHEM 304 Modern Chemical Instrumentation

The course is intended to give the student an understanding of the applicability of current laboratory instrumentation both to the elucidation of fundamental chemical phenomena and to the measurement of certain atomic and molecular parameters. Experimental methods, including absorption and emission spectroscopy in the ultraviolet, visible and infrared regions, chromatography, electrochemistry, mass spectrometry, magnetic resonance and basic electronics are discussed, with examples drawn from the current literature. The analytical chemical techniques developed in this course are useful in a wide variety of scientific areas.
Lectures, three hours a week; laboratory, four hours a week.
Prerequisite, Chemistry 201-202. Open to sophomores with permission of the instructor.

Hour Lab. section: Skinner

CHEM 305 Inorganic Chemistry

The fundamentals of atomic theory and the valence bond, ligand field and molecular orbital theories for interpretation of chemical bonding are considered in detail. Applications of these theories to the magnetic and spectral properties, structure, stability and reaction mechanisms of inorganic compounds with emphasis on the transition metals are reviewed. The role of metal atoms in organometallics and in molecular systems of industrial significance (organometallalies) and biological importance (metallabiomolecules) is discussed.
Lectures, three hours a week; laboratory, four hours every other week.
Prerequisite, Chemistry 201-202.

Hour Lab. section: Tikkanen

CHEM 306 Physical Chemistry: A Biochemical Approach

This course is designed to introduce the principles of physical chemistry to students primarily interested in the biochemical, biological or medical professions. Topics of physical chemistry are presented from the viewpoint of their applications to biochemical problems. Included are discussions of thermodynamics and biochemical energetics, properties of solutions and electrolytes, electrochemical cells and biological oxidation-reduction systems, chemical kinetics and enzyme action.
Lectures, three hours a week; laboratory, four hours on alternate weeks.
Prerequisites, Chemistry 101-102 (103-104) and Mathematics 107 (or equivalent).
Open to sophomores with permission of the instructor.

Hour Lab. sections: Lovett
Chemistry

[**CHEM 308** Sampling the Chemical Environment (Same as Environmental Studies 308) (Not offered 1985-86.)]

This course provides the student interested in environmental issues with an understanding of modern instrumental methods available for monitoring chemical substances. The classification of different chemicals is reviewed. The course should appeal to students whose primary background may be outside of chemistry, but who share an interest in environmental issues. Specific techniques discussed include: x-ray fluorescence; metal cation analysis with atomic absorption, anion analysis with an autoanalyzer, detection of organic substances with chromatographic and spectroscopic techniques and use of ion-selective electrodes.

Lectures, three hours a week; laboratories every other week.

Prerequisites, Chemistry 101-102 or Biology 213 or Geology 201; open to chemistry majors.

**Hour** Lab. section: J. Skinner

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**CHEM 401** Quantum Chemistry and Molecular Spectroscopy

This course introduces the student to the basic principles of quantum mechanics and their application to problems of chemical interest such as chemical bonding, chemical reactivity and molecular spectroscopy. Emphasis is placed upon developing an understanding of the quantum mechanical basis for classical chemical concepts and extending it to current research applications. The laboratory covers a range of optical and magnetic resonance spectroscopy experiments; several seminar sessions provide an opportunity to study modern computational techniques in molecular quantum chemistry. Computer experience is desirable.

Lectures, three hours a week; laboratory, four hours a week.

Prerequisites, Chemistry 301, 302 or equivalent background in physics.

**Hour** Lab. section: Halstead

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**CHEM 402** Physical-Organic Chemistry

This course is designed to extend the cumulative background derived from previous courses to the understanding of organic reaction mechanisms. An attempt will be made to advance the student's ability to correlate structure and reactivity by systematically treating mechanistic classes, discovering trends in reactivity and learning to predict detailed structure. Cationic rearrangements, pericyclic reactions and qualitative quantum mechanical descriptions are treated in detail. The criteria for establishing reaction mechanisms is discussed. Laboratory sessions demonstrate experimental methods for verifying theories discussed in class.

Lectures, three hours a week; laboratory, four hours a week.

Prerequisite, Chemistry 201-202.

**Hour** Lab. section: Markgraf

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**CHEM 403** Biochemistry: A Study of the Molecules of Life

The application of the principles of organic and physical chemistry to the study of biological systems. This course provides an understanding of biochemistry important to those students considering postgraduate study in medicine, biochemistry or related fields. Emphasis is placed on the biochemistry of carbohydrates, lipids, proteins, nucleic acids and other materials of biochemical interest. The principles and methods of biophysical chemistry are presented with emphasis on their application to the behavior of macromolecules in solution. The laboratory work includes a study of the structure of macromolecules by spectroscopic, hydrodynamic, electrophoretic and chromatographic techniques.

Lectures, three hours a week; laboratory, four hours a week.

Prerequisites, Chemistry 201-202, 306 or 301, 302 or permission of the instructor.

**Hour** Lab. sections: Lovett

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**CHEM 404** Biochemical Reactions of Living Cells

Fundamental biochemical principles are applied to a consideration of the function of biological molecules *in vivo*. The topics considered include enzyme function and regulation, intermediary metabolism and feedback control, integration and regulation of
human metabolism, photosynthesis and molecular biology. Selected topics of contemporary research interest are studied through the use of the current literature. Laboratory work is designed to provide a sound introduction to widely used methods in biochemistry. These include the purification and kinetic characterization of an enzyme, isolation and molecular cloning of DNA and DNA sequence analysis.

Lectures, three hours a week; laboratory, four hours a week.
Prerequisite, Chemistry 403 or permission of the instructor.

Hour
Lab. sections:

**RESEARCH and THESIS COURSES**

**CHEM 393, 394  Junior Research and Thesis**

**CHEM 493-W31-494  Senior Research and Thesis**
Individual research projects in a field of interest to the student are carried out under the direction of a staff member and culminate in a thesis.

**CHEM 397, 398  Independent Study**

**CHEM 497, 498  Independent Study**
Individual research projects in a field of interest to the student are carried out under the direction of a staff member.

**CHINESE (Div. I)**

Co-ordinator, Peter K. Frost

Visiting Associate Professor: MA.

**CHIN 101-102  Elementary Chinese**
This course is designed to develop the four basic language skills—comprehension, speaking, reading and writing Chinese. The course objectives are for the student to develop control of the sound systems of Mandarin Chinese, master basic grammatical structures and the ability to understand and read simple Chinese passages. Special emphasis will be given to the development of speaking skills.

Upon completion of the course, a student should be able to (1) understand the Chinese of everyday life when spoken at moderate speed; (2) be understood in typical situations of everyday life; and (3) be able to read simple Chinese passages.

Hour
MA

**CHIN 201, 202  Intermediate Chinese**
This course is a continuation of Elementary Chinese 101-102. Course objectives are to consolidate the basic foundations built in Elementary Chinese and to develop sentence structure and vocabulary. Improvement of aural comprehension, speaking, reading and writing competence will also be emphasized. Reading materials written in regular full form characters will be used, though simplified Chinese characters also will be taught.

Upon completion of the course, the student should be able to speak Chinese with some fluency on conventional topics, achieve a basic level of reading competence within a vocabulary of 800 characters and accompanying combinations, and be able to write short compositions in Chinese.

Hour
MA

**CHIN 497, 498  Independent Study**
Will be available for those students who have sufficient background in Chinese. Consult Professor Frost for details.
CLASSICS (Div. I)
Departmental Staff for 1985-86

Chairman, Professor CHARLES FUQUA

Professors: FUQUA, STAMBAUGH. Associate Professor: HOPPIN.

MAJOR PROGRAM
The major in Classics provides a liberal and comprehensive view of the ancient world through first-hand contact with the Greek and Roman roots of western civilization. Courses in Greek and Latin are designed to develop command of the written languages as quickly as possible, to introduce techniques of textual analysis and to survey the ancient world through its greatest works of literature. (The advanced courses, numbered 401 and 402, are open to all students regardless of class whose command of the language is at the level indicated by the prerequisite.) Other courses, in which readings are in English translation, offer a wider context in literature, mythology, art and history.

The Department offers two routes to the major: Classics and Classical Civilization.
Classics: six courses in Greek and/or Latin, including three at the 400 level; and three additional courses, elected from the offerings in Greek and Latin or from the list below.
Classical Civilization: three courses chosen from Classics 101, 102, History 216, 218; three courses in Greek or Latin (including one at the 400 level); two additional courses from the list below; a senior independent study. Several of the courses elected, including the independent study, should relate to each other in such a way as to reflect some concentration on a particular genre, period or problem.

(a) Classics 101, 102 Classical Literature
(b) Classics 104 Greek Mythology
(c) Classics 201 Greek Tragedy
(d) Art/Classics 203 The Ancient City
(e) History 216, 218 Greek and Roman History
(f) Art/Classics 332 Greek and Roman Archaeology
(g) Appropriate courses at the Intercollegiate Center for Classical Studies in Rome; or appropriate courses dealing with the ancient world in other departments, such as Philosophy 202, Greek Philosophy; Religion 201, The Jewish Bible/Old Testament; Religion 204, The New Testament.

Majors are encouraged to study for a semester at the Intercollegiate Center for Classical Studies in Rome, a consortium of which the Department is a member. The curriculum includes work in archaeology, topography, urban studies, Latin, Greek, art history and Italian.

THE DEGREE WITH HONORS IN CLASSICS
Students who wish to be considered for the degree with honors will be encouraged to present a thesis or to pursue appropriate independent study. This thesis or independent study will offer students an opportunity to work in depth on a topic of their choosing and to apply and develop the techniques and critical methods with which they have become acquainted during their regular course work. It may also include relevant work with members of other departments. To be awarded the degree with honors in Classics, the student will be required to take a minimum of ten courses, one of which may be a Winter Study, in the department and to have demonstrated original or superior ability in studies in the field.

CLASSICAL CIVILIZATION (Div. I)

CLAS 101, 102 Classical Literature
First semester: An introductory study of the masterpieces of classical Greek literature in translation from Homer to Plato and the development of the culture that produced them.
Second semester: A survey of Roman literature in translation from its beginnings in the Republic to Apuleius. Special emphasis will be placed on the qualities which distinguish Roman literature from its Greek predecessors.

**CLAS 104 Greek Mythology**
A survey of selected Greek myths as they are reflected in the principal literary works, graphic arts and archaeology. In conjunction with primary sources the class will consider methods which have been developed for the analysis and interpretation of myth.

*Enrollment limited to 60.*
Open to upperclassmen only with permission of the instructor.

**CLAS 201 Greek Tragedy (Not offered 1985-86.)**
A study of the Attic theatre and stage conventions and of selected plays by Aeschylus, Sophocles and Euripides. We will approach the texts as scripts of plays both as they were performed on the Greek stage and as they might be performed today. We will also discuss the plays in light of the social and political setting of fifth century Athens.

*Open to freshmen.*

**CLAS 203 The Ancient City (Same as Art 203)**
A survey of urban sites and life from the rise of cities in the ancient Middle East to the end of antiquity, with special emphasis on Athens and Rome. Archaeological remains, literary descriptions and primary documents in translation will be used to understand the importance of the city in the development of classical civilization, the life styles of people who lived in ancient cities and the functions of building types and social institutions in their urban context.

No prerequisite.

**CLAS 234 Classical Painting (Same as Art 234)**
(See under Art for full description.)

**CLAS 332 Greek and Roman Archaeology (Same as Art 332) (Not offered 1985-86.)**
(See under Art for full description.)

**CLAS 436 The Trojan War: Greek Art and Poetry (Same as Art 436)**
(See under Art for full description.)

**History 216 Greek History (Not offered 1985-86.)**
(See under History for full description.)

**History 218 Roman History**
(See under History for full description.)

**GREEK (Div. I)**

**CLGR 101-102 Introduction to Greek**
A full year course in which grammar is presented through continuous passages of Greek, drawn from ancient authors and illustrating the intellectual and cultural life of classical Athens.
Classics, Greek, Latin

For students who are beginning Greek or have studied less than two years of Greek in secondary school. Credit granted only if both semesters are taken.

Hour

First semester: HOPPIN
Second semester: STAMBAUGH

CLGR 201 The Golden Age of Prose
Reading of selections from fourth and fifth century writers. The primary goal will be to develop speed and accuracy in reading Greek, and we will supplement readings in Greek with exercises in Greek prose composition.
Open to freshmen. Prerequisite, Greek 101-102 or two years of Greek in secondary school.

Hour

CLGR 401, 402 Topics in Greek Literature
Selected readings in specific areas of Greek literature. These courses may be elected more than once for credit since their content is changed each year in accordance with students' needs and interests. In recent years topics have included such subjects as the Iliad, Greek Lyric Poetry, the Attic Dramatists, Aristophanes and Hellenistic Poetry.

For 1985-86 the topics are:

First semester: Greek Historians. Selections from Herodotus and Thucydides will be read in conjunction with readings on the historical background and modern criticism of each historian. Other topics to be considered will include each author's attitude to history, the political process and the composition and organization of his work.

Second semester: The Iliad. Selections from the Iliad will be read and discussed in class in an examination of the epic not only in its own right, but also as one of the most important sources of the ideals that guided the growth and development of Greek civilization.

Prerequisite, Greek 201 or permission of the department.

Hour

LATIN (Div. I)

CLLA 101-102 Introduction to Latin
A full year course introducing the fundamentals of the Latin language supplemented by readings from Catullus and Vergil. Credit granted only if both semesters are taken.

Hour

CLLA 201 Literature of the Late Republic
A study of one of the most important pivotal periods of Roman politics and literature. In the first part of the semester we will examine events on the political scene through the writings of Cicero and Sallust and in the second, consider the manner in which Catullus reshaped the Latin poetic tradition and laid the foundations for the golden age of Augustan literature. Readings in the original will be supplemented by selections in translation, secondary sources and a review of grammatical principles.

Open to freshmen.

Prerequisite, Latin 101-102. This course is also open to students who have studied four years of Latin in secondary school or three years with permission of the department.

Hour

CLLA 401, 402 Topics in Latin Literature
Selected readings in specific areas of Latin literature. These courses may be elected more than once for credit since their content is changed each year in accordance with students' needs and interests. In recent years topics have included such subjects as Ro-
Classics, Comparative Literature

human Comedy, Satire, the Neoteric Poets, Lucretius, Vergil and Silver Age Latin.
For 1985-86 the topics are:

First semester: Ancient Roman Religion. A study of the many religions of Rome: the primitive agricultural rites; the Greek and oriental cults; philosophical syntheses of the late Republic; the Augustan Restoration; the cult of the Emperor and the confrontation with Christianity. Readings in Latin and English of such primary sources as Lucretius, Cicero, Horace, Ovid, inscriptions and modern works of interpretation.

Second semester: Horace. A study of the poet’s life and works concentrating on the Odes as examples of poetic craftsmanship and reflections of the Augustan Age.
Prerequisite, Latin 201 or permission of the department.

CLASSICS (Div. I)

CLAS 493, 494 Senior Thesis
Recommended for all candidates for the degree with honors. This project may be of either one or two semesters’ duration.

CLAS 497, 498 Independent Study
Students with permission of the department may enroll for independent study on selected topics not covered by current course offerings. As part of their work, students will be expected to report on the progress of their work in the departmental colloquium scheduled during the semester.

COMPARATIVE LITERATURE (Div. I)

Chair, Associate Professor Sherron E. Knopp

Advisory Committee: Professor: Fuqua. Associate Professors: Giménez, Knopp. Assistant Professor: Goldstein. Part-time Lecturer: C. Park.

The program in Comparative Literature is designed for students who wish to pursue the study of literature through a systematic combination of two or more national literatures. The scope of this subject allows the student to examine qualities of literature not restricted to national, linguistic and cultural units; it also enables the student to see, in a broad context, what qualities are peculiar to the literatures of particular cultures.

The program consists of a conventional major in one national literature supplemented by six additional literature courses and one course in critical theory chosen from among those designated by the Comparative Literature Committee as 300 level courses in Comparative Literature. The six additional courses are to be chosen in consultation with an adviser—three of these may be literature in translation courses, three must be literature in the original language. The theory courses, Comparative Literature 301, 302 will be designated and crosslisted each year in accord with appropriate critical theory courses in the various literature departments. Students in the Program in Comparative Literature will submit a dossier at the end of the fall semester of the senior year containing at least three (and not more than five) papers which are comparative in nature and representative of the student’s work in the field. The Comparative Literature Committee will then determine whether the student should complete the program as planned or remedy any deficiencies.
Prerequisites for admission to the program: a reading knowledge of at least one foreign language equal to that required by departments of language and literature as prerequisites to courses in literature.
COMPUTER SCIENCE (DIV. III)
Department of Mathematical Sciences
Departmental Staff for 1985-86

Chair, Professor ROBERT M. KOZELKA†
Acting Chair, Professor GUILFORD L. SPENCER

Professors: D. BEAVER, V. HILL, SPENCER. Associate Professor: BRUCE. Assistant Professors:
HOUSE, LENHART*, LEVINE, SCARGG, SILVA. Lecturer: L. E. WRIGHT.

The Department of Mathematical Sciences offers both a major in Computer Science and introductory courses aimed at the non-major.

MAJOR PROGRAM

The major in Computer Science is designed to provide an understanding of algorithmic problem solving as well as the conceptual organization of computers and major programs running on them. The main emphasis is on the fundamental principles of computer science and the mathematical ideas underlying these principles.

Required courses in Computer Science
Computer Science 135 Introduction to Computer Science
Computer Science 235 Principles of Computer Science
Computer Science 236 Computer Organization
Computer Science 355 Algorithms
Computer Science 431 Theory of Computation
Either Computer Science 432 Operating Systems
or Computer Science 434 Compiler Design
An elective chosen from 300 and 400 level courses in computer science or Mathematics 330.

Required courses in Mathematics
Mathematics 151 Discrete Mathematics
Either Mathematics 108 Multivariable Calculus
or Mathematics 140 Calculus and Statistics
Mathematics 211 Linear Algebra

Satisfactory participation is required in the Computer Sciences Colloquium by all senior majors. In addition, it is recommended, but not required, that one Winter Study Project offered by the Department for majors be taken during the junior or senior year. With the advance permission of the Department, two mathematics courses numbered 240 or above may be substituted for the computer science elective. Other variations in the required courses, adapting the requirements to the special needs and interests of the individual student, may be arranged in consultation with the Department. To be eligible for admission to the major, a student must normally have completed Computer Science 135 and 235 as well as Mathematics 151 and either 108 or 140 by the end of the
sophomore year. Students are also urged to complete Computer Science 236 by the end of the sophomore year. Computer Science 236, 355 and Mathematics 211 must normally be completed by the end of the junior year.

Students interested in attending graduate school or pursuing a career in computer science are urged to take more upper division computer science and mathematics courses beyond those required for a minimum major. Aside from the courses in computer science the following mathematics courses should be of special interest to computer science majors: Mathematics 330, Numerical Analysis, Mathematics 351, Decision Theory, Mathematics 352, Combinatorics, Mathematics 360, Mathematical Logic, Mathematics 311, Abstract Algebra I, Mathematics 301, Real Analysis.

All majors are encouraged to take several courses (what might be called a minor at other schools) in an area related to computer science or in which there are substantial applications of computing. Such fields include all of the sciences (including Mathematics), Economics, Political Science, Studio Art, etc.

THE DEGREE WITH HONORS IN COMPUTER SCIENCE

The degree with Honors in Computer Science is awarded to a student who has demonstrated outstanding intellectual achievement in a program of study which extends beyond the requirements of the regular major. The principal consideration in recommending a student for the degree with honors will be: Mastery of core material and skills, breadth and particularly, depth of knowledge beyond the core material, ability to pursue independent study of computer science, originality in methods of investigation and where appropriate, creativity in research.

Prospective Honors students are urged to consult with their departmental adviser at the time of registration in the spring of the sophomore or at the beginning of the junior year to arrange a program of study that could lead to the degree with Honors. Such a program normally comprises coordinated study involving a regular course and independent study, undertaken during a regular semester and a Winter Study period. The program culminates in a significant piece of written work and an oral exposition. The written work usually includes a major computer program, depending on the nature of the Honors work. If the program chosen consists of two independent study courses and one WSP independent study, the culminating written work should be a formal bound thesis.

Formal admission to candidacy is based on promising performance in the first two of the three units of study in the Honors program. Recommendations for the degree with Honors will be made for outstanding performance in the three Honors courses. Highest honors will be recommended for students who have displayed exceptional ability, achievement or originality.

Introductory Courses

The department offers two “computer literacy” courses, Computer Science 131 and 133, as well as the introductory course to the major, Computer Science 135. Computer Science 131 and 133 are designed for the student who wishes to take only a single semester of computer science. Computer Science 131 provides “computer literacy” and should be taken by those students needing only a minimal exposure to computer programming and who wish to concentrate on the concepts and social issues related to computing. In order to have a better appreciation of these issues, students will learn to write simple programs in BASIC.

Computer Science 133 concentrates on programming and deals less with social issues. It is aimed at those students who wish to learn to program a computer, but who do not expect to make heavy use of this programming knowledge either at Williams or beyond. Computer Science 135 is the introductory course in computer science and should be taken by those students who need or desire a more comprehensive introduction to computer science and programming. Note that only Computer Science 135 serves as a prerequisite for advanced courses in computer science and is required for the major. Computer Science 133 cannot be used to replace 135. Students who take Computer Science 133 and later wish to take more advanced courses in computer science may be
able to qualify for 235 by doing a substantial amount of work on their own to catch up. Consult the department for details.

Students wishing to take Computer Science 135 who have had no previous programming background may spend a relatively small amount of time learning to program in BASIC or some other programming language. Several good books are available for this purpose. Students wishing to qualify for Computer Science are advised not to take 131 to obtain the necessary programming background. A self-study program is a much more efficient use of time. Again, consult the department for more details.

Students are reminded that first semester freshmen are not allowed to register for computer science courses. Prospective computer science majors are urged to begin their mathematics requirements in their first semester at Williams. Note that Mathematics 151 is a prerequisite or corequisite for Computer Science 235.

ADVANCED PLACEMENT

Students with extensive backgrounds in Computer Science (not just programming) are urged to take the Advanced Placement Examination in Computer Science. Students who wish to be placed in Computer Science 235 but have not taken the Advanced Placement Examination should consult with the department. Copies of large programs written and titles of books used in courses will be helpful in this process. Students with strong background, but not quite strong enough qualifications for Computer Science 235 will be able to complete a (non-credit) independent study program during the semester and/or Winter Study to qualify for Computer Science 235. This will be similar to that required for students who have taken Computer Science 133 and wish to qualify for 235.

CSCI 131 Computers and Society (Same as History of Science 131)

This course examines the basic concepts and issues of computer usage which are necessary to make informed judgments about computer-related developments in modern Western society. Students learn to program in BASIC on microcomputers. In addition, the course surveys computer hardware, current applications of computer technology and social issues (e.g., data bases and privacy, artificial intelligence, ethical problems).

Computer Science 131 does not grant Division III credit nor does it serve as a prerequisite for further computer study.

First semester freshmen must take this course as History of Science 131.

D. BEAVER

CSCI 133(F,S) Introduction to Programming


No prerequisite. Credit will not be given for Computer Science 133 and either 131 or 135. Does not satisfy the prerequisites for more advanced courses in computer science. Not open to first semester freshmen.

First semester: V. HILL, HOUSE
Second semester: V. HILL, LEVINE, L.E. WRIGHT

CSCI 135(F,S) Introduction to Computer Science

Introduction to the design, development and implementation of computer algorithms. Elements of structured design and introduction to recursive programs, stacks, queues and linked lists. The programming language Pascal will be taught as part of the course and used in required laboratory exercises. This course is a prerequisite for all advanced courses in computer science.
Computer Science

Prerequisite, experience in writing short programs in any high-level programming language (e.g., BASIC, FORTRAN, Pascal, PL/I, etc.) Consult department for more information. Credit will not be given for both Computer Science 133 and 135.

Not open to first semester freshmen.

Hours 135(F) Lab. sections: First semester: SCARRG
135(S) Lab. sections: Second semester: BRUCE, HOUSE, SILVA

CSCI 235(F,S) Principles of Computer Science
Continuation of Computer Science 135. Emphasis on modularization and data abstraction. Advanced data structures, file structures, simulation, memory management, analysis of algorithm complexity. Introduction to program verification, machine architecture and systems software. A second programming language will be introduced. Required laboratory exercises in design and implementation of algorithms and data structures. The combination of Computer Science 135 and 235 provides a strong background in computing and a survey of computer science.
Prerequisites, Computer Science 135 or equivalent and Mathematics 151. (Mathematics 151 may be taken concurrently.)

Hours 235(F) Lab. section: First semester: L.E. WRIGHT
235(S) Lab. section: Second semester: LEVINE

CSCI 236 Computer Organization
Study of the basic architecture of a computer system, fundamentals of logic design, mechanics of information transfer and control. Machine level instruction sets and assembler language coding will be considered, with students writing routines in an assembly language.
Prerequisite, Computer Science 235.

Hours Lab. section: SCARRG

Mathematics 330 Numerical Analysis (Will not be offered 1986-87.)
(See under Mathematical Sciences for full description.)
Prerequisites, Mathematics 211 and Computer Science 135.

[CSCI 331 Programming Languages (Not offered 1985-86.)
Concepts and structures of BASIC, COBOL, ALGOL, LISP and SNOBOL will be studied with emphasis on their comparative syntax and semantics of languages. Some material in formal grammars and computation processes will be included. Illustrative programs in each of the languages will be required.
Prerequisite, Computer Science 232.

Hours ]

CSCI 355 Algorithms
Centers around the design and analysis of algorithms, particularly those for handling complex data structures and non-numeric processes. Material includes program complexity and verification, Turing machines and NP complete problems.
Prerequisites, Computer Science 235 and Mathematics 151.

Hours LEVINE

CSCI 371 Computer Graphics (Will not be offered 1986-87.)
This course provides an introduction to the techniques and hardware available for the production, display and manipulation of computer generated images. Material covered includes display technologies and surface organization, interactive techniques, modeling objects in two and three dimensions, raster algorithms, hidden line and surface removal and shading models.
Prerequisites, Mathematics 211 and Computer Science 235.

Hours Lab. section: HOUSE, SILVA

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CSCI 373(S)  Artificial Intelligence (Will not be offered 1986-87.)
Includes a survey of the state-of-the-art and problems in various applications involving "intelligent" machines: natural language processing, vision, robotics, expert systems, theorem proving and automatic programming. Techniques applicable to all such systems will be discussed: search strategies, production systems, inductive and deductive reasoning, plan generation and appropriate knowledge representation. A semester project is required.

Hour Lab. section: SCRAGG

[CSCI 375(S)  Data Base Systems (Not offered 1985-86.)
The design and implementation of large scale systems for the management of data, including the relational, hierarchical and network approaches; data independence, security and integrity; logical and physical representations and search techniques; query and definition languages. Required laboratory project.
Prerequisite, Computer Science 355.
Hour Lab. section:

CSCI 397, 398, 497, 498  Reading
Directed independent reading in Computer Science.
Prerequisite, permission of the department.

CSCI 431  Theory of Computation
Formal models of computation such as finite state automata, recursive functions, formal grammars and Turing machines will be studied. These models will be used to provide a mathematical basis for the study of computability.
Prerequisites, Computer Science 355 and Mathematics 151 or a 300 level mathematics course.
Hour SILVA

CSCI 432  Operating Systems (Will not be offered 1986-87.)
How computer operating systems allocate resources and create virtual machines. Topics will include storage management, scheduling, concurrent processing, protection of data and user interface.
Prerequisites, Computer Science 355 and 236.
Hour Lab. section: HOUSE

[CSCI 434  Compiler Design (Not offered 1985-86.)
Principles of programming language processors. Discussion and evaluation of current implementation techniques including the applicable theory. Topics include lexical scanners, parsers, code generation and optimization. Major laboratory project in compiler writing.
Prerequisites, Mathematics 151 and Computer Science 236. Computer Science 331 and 431 are recommended.
Hour Lab. section:

CSCI W30  Senior Project
For candidates for honors in computer science other than by thesis route.

CSCI 493-W31-494  Senior Honors Thesis

Computer Science Senior Colloquium
Required of senior majors. Meets every week for one hour both fall and spring.
Hour
A specially qualified and dedicated student with the talent and energy for working independently may undertake a contract major—a coherent study of an interdisciplinary subject not covered by a regularly offered major. Such a major must be in an area suitable to the talents of the faculty in residence and cannot be a regular major with one or two courses omitted. A contract major must have the coherence of a departmental or program major—i.e., disciplined cumulative study moving from an elementary to advanced level, culminating in a synthesis analogous to a senior major course. A contract major usually consists of a program of existing courses sometimes supplemented by courses of independent study and the senior course. As the following procedures indicate, considerable time is required for approval of a contract major. Interested students should begin to formulate their proposals early in the sophomore year. Before proposing a contract major, a student should give careful consideration to the advantages of working within majors already offered; pursuing an educational program developed by a faculty over a period of time and sharing similar educational experiences with other students working within the same major. Alternatives to a contract major include completing a regular major and co-ordinate program, a double major or simply working outside one’s field in courses of special interest.

1) The student must initiate discussion with at least two members of the Faculty from different departments who expect to be in residence during the student’s senior year and who are willing to endorse the contract major program and undertake a central role in supervising its implementation, criticism, evaluation and ultimate validation.

2) The student must submit to both sponsors a written statement for approval. (Forms are available in the Dean’s Office.) The statement should contain:
   a) a description of the proposed major area of study and an explanation of why it is necessary to pursue a contract major.
   b) a list of all courses in the proposed major program and an explanation for each course choice. A minimum of nine semester courses, one of which must be designated the senior major course, must be completed for a contract major.
   c) a list of other courses, taken or anticipated to meet College distribution and degree requirements, including grades received in courses already completed.

3) The faculty sponsors, having approved the program, will submit it and their letters of endorsement and evaluation to the Dean for review at least two weeks prior to spring registration.

4) The Dean will forward these materials to the Committee on Educational Policy, adding recommendations regarding feasibility and an evaluation of the substance of the proposal. If necessary, the Dean will make comparative ratings of proposals because only a limited number of contract majors can be approved.

5) The CEP, after consultation with departments substantially affected by a proposal, will vote on each proposal individually and will report the decision to the Dean, who will notify students and sponsors before the spring registration deadline. If time necessary for CEP review demands it, the Dean may postpone notification of students and permit them to register late without penalty.

6) Students whose contract majors have been approved by the CEP must submit to the Dean before the beginning of April of the junior and senior year a report of their progress, including grades received in courses that are part of the contract, any changes that have been made with the approval of their faculty sponsors, and the signatures of both sponsors. In cases where there has been substantial alteration of the original contract, the Dean will forward the report to the CEP for reconsideration.

THE DEGREE WITH HONORS IN THE CONTRACT MAJOR

The route to the degree with Honors in the contract major will normally be a senior thesis requiring two semesters and a Winter Study of work. In special circumstances a student may propose to substitute a one semester course or a Winter Study course for one of his or her thesis courses and write a minithesis. The contract major with Honors shall comprise a minimum of eleven semester courses or ten semester courses plus one Win-
Contract Major, Critical Languages, Economics

ter Study. One semester of independent study undertaken for the thesis may be allowed to fulfill the requirement for a senior major course.

The Faculty sponsors shall determine by the end of Winter Study whether the student is to be admitted to Honors candidacy. If not admitted to Honors candidacy, the student may elect not to continue further independent study. If admitted to Honors candidacy, the student shall submit a written thesis or minithesis to three Faculty readers, at least one of whom shall be a Faculty sponsor and at least one of whom shall not be a Faculty sponsor. The outside reader or readers shall be selected by the Dean in consultation with the Faculty sponsors. There will be a one hour oral examination by the readers, and they shall make a final decision regarding Honors.

CRITICAL LANGUAGES

For a description of courses in beginning Arabic, Hebrew and Swahili, see 201-202. Chinese and Japanese courses are listed separately.

CRLA 201-202  Critical Languages
Arabic, Hebrew and Swahili language programs are now available for students with proven capability for independent work. Students will be expected to work with a standard language textbook, to spend roughly 10-12 hours per week with individual cassette tapes provided by the college, and to attend three hours of drill, with trained speakers, per week. Final grades will be determined through midterm and final examinations given by language specialists from various universities.

Because the offering of any particular language depends upon the availability of tutors and tapes, students interested in this program must consult with the Coordinator during spring registration.

Enrollment limited.
Hour

Co-ordinator: T. SPEAR

ECONOMICS (Div. II)
Departmental Staff for 1985-86

Chair, Professor STEPHEN R. LEWIS, JR.

Professors: BOLTON, BRUTON, CLARK, LEWIS, McFARLAND, McPHERSON, SHEA-HAN, WINSTON, Visiting Professor: SABOT. Associate Professors: ALSTON, BRADBURY. Assistant Professors: FAIRRIS, C. HILL, HORRIGAN, LEVY, ROSS, SCHAPIRO, SRINAGESH, STUART, WAREMAN-LINN, YOUNGER. Part-time Visiting Assistant Professor: SHAW. Lecturers: IFILL, MCNALLY-WASSENER.

MAJOR PROGRAM

Economics 101  Introduction to Economics
One Economics course numbered 201 to 240
Economics 251  Price and Allocation Theory
Economics 252  Income and Growth Theory
One statistical methods course, Economics 253 or 255 (If at all possible, this course should be taken before 401.)
Three Economics electives, of which at least two must be selected from advanced electives numbered 352 to 394
Economics 401  Senior Seminar

The primary objectives of the major are to develop an understanding of economic aspects of contemporary life and to equip the student to analyze economic issues of social policy. The introductory course stresses use of the basic elements of economic analysis for understanding and resolving such issues. In the following semester the
student normally chooses one of the 200 series courses, in which economic analysis is
applied within a particular field. The two required theory courses then provide a more
thorough grounding in economics as a discipline—by examining the strengths and
weaknesses of the price system in allocating economic resources, and by examining the
aggregate processes which determine employment, inflation and growth. A course in
statistical methods (253 or 255) equips the major to understand and apply the basic tools
of quantitative empirical analysis. Majors must take three electives, in two of which
they apply parts of the theory learned in the required theory courses. In the senior
course the student studies a series of current theoretical or policy problems, applying
analysis and research methods. The normal requirement that nine Economics courses
be taken at Williams will usually be waived only on the basis of transferred college
credit deemed acceptable by the department.

Prospective majors please note that instructors in all sections of Economics 251 and
253 feel free to use elementary calculus in assigned readings, lectures, problem sets and
examinations. By elementary calculus is meant differentiation of single variable poly­
nomial functions and conditions for a maximum or minimum; it does not include
integration or multivariable calculus. Instructors in advanced electives (courses num­
bered 352-394) may also use elementary calculus in assigned readings, lectures, problem
sets and examinations. Students are also reminded that some courses now have specific
mathematics requirements; see course descriptions.

THE DEGREE WITH HONORS IN ECONOMICS
To be admitted to candidacy for honors in economics a student must complete a
substantial piece of independent research. Two routes to honors are open: the specializa­
tion route and the thesis route.

a. Specialization route, consisting of these three units:
   1. An advanced elective in economics taken prior to the spring of the senior year
   2. An Honors Winter Study Project (W33) in January of the senior year
   3. Economics 404 Honors Seminar

   The first unit may be any economics course numbered between 352 and 394, and may
count as one of the courses required for the regular major. A student interested in hon­
or will identify a topic in the advanced elective and write an extensive research paper
on it in the Honors WSP and in the Honors Seminar. A student must apply for candi­
dacy early in the fall of the senior year by presenting a proposal for a Research Paper on
a topic covered in an advanced elective. See the department’s course guide for more
details.

b. Thesis route (Economics 493-W31-494)

   A few students each year will be accepted for yearlong thesis research on a subject
closely related to the scholarly interests of a faculty member. A student who hopes to do
such independent and advanced research in close association with a faculty member
should begin to work out a mutually satisfactory topic early in the second semester of
his or her junior year. Application to the department must be made before the end of the
junior year by submitting a detailed proposal for work under the supervision of the
faculty member. The WSP of the senior year is also spent on the thesis.

AFRO-AMERICAN STUDIES AND AREA STUDIES
A major in economics who concentrates in Afro-American or Area Studies may sub­
stitute the non-economics courses in the concentration for one lower level elective in
the economics major, but not for an advanced elective (352-394).

Note on Course Numbers: Courses between 201 and 240 are lower level electives and are
open to freshmen who have taken 101. Courses between 260 and 350 are intermediate
electives which do not build on specific prior experience, but do require some maturity,
so they have any two economics courses or permission of the instructor as prerequisites.
Courses above 351 are advanced electives primarily designed for economics and politi­
cal economy majors and have theory prerequisites.
ECON 101(F,S) Introduction to Economics

An introduction to economic analysis that stresses its value in understanding current issues of social and public policy. The central theme is how and why markets work, why they may fail to work, and the implications for social policies of both their successes and failures. Among the markets to be examined are the market for human labor that largely determines who is poor and who is affluent, the markets for goods, the markets for clean air and water, and the market for national product that largely determines employment, inflation and growth. The course emphasizes the basic elements of orthodox economic analysis, but also includes discussion of the limitations to orthodox analysis and alternative ways in which economic issues can be approached. Required of majors and highly recommended for those non-majors interested in understanding current economic, political and social problems.

The department recommends that students follow 101 during one of the subsequent two semesters with an economics course numbered from 201 to 240. These courses reinforce the concepts of the introductory course and apply those concepts within a particular policy field.

Hours
101(F) 101(S)
First semester: P. Clark, Levy, Lewis, Sabot, Wakeman-Linn
Second semester: Srinagesh, Stuart, Winston

ECON 203(S) Women, Family and Economics

The course will examine the impact of the economic role of women on society at various stages of economic development. Particular attention will be paid to analyzing economic aspects of the physiological, psychological and sociological demands placed upon women and men and thereby on the structure of the household, the labor force and the economy as a whole.

Prerequisite, Economics 101.

ECON 204 Economic Development

An introduction to development problems of poor countries and implications for the international order. We will examine basic problems of dualistic economies, investment and industrialization, export-import policies and income distribution within poor countries; key social issues of political power, rural development, land reform, employment, education and population policies and major international issues involving relationships between rich and poor countries, including food and energy interdependence, financial assistance, trading arrangements, multinational corporations and proposals for a new international economic order.

Prerequisite, Economics 101.

Students who have completed Economics 252 must have permission of the instructor.

ECON 205 Public Finance

This course is an exploration of the many roles that government performs in the U.S. economy, placing particular emphasis on its microeconomic aspects. Topics will include: public remedies for market failures; expenditure on national defense, human services and income redistribution; theories of public choice, bureaucracy and budgeting; theory and practice of taxation; fiscal federalism. Each topic will be related to recent economic policy.

Prerequisite, Economics 101.

Students who have completed Economics 251 must have permission of the instructor.

ECON 206 Current Macroeconomic Issues

This course examines issues related to monetary and fiscal policy. Topics may include: the United States government deficit—its causes, consequences and proposed solutions; the economic implications of recent tax reform proposals; the problem of unemployment; the recent United States success in controlling inflation; the causes and conse-
quences of the strong United States dollar. Issues will be examined within the framework of macroeconomic theory, while recognizing the constraints created by political realities. Prerequisite, Economics 101. Not open to students who have completed Economics 252.

**ECON 208(F,S)** Modern Corporate Industry

Role of the large corporation in the American economy. In past years, topics covered have included the theoretical underpinnings of antitrust enforcement; the effects of market structure on advertising and technological change; analysis of the causes and effects of regulations involving product safety, environmental pollution, occupational safety and truth in advertising; and discussion of the appropriate role for business in public-policy decision-making. Prerequisite, Economics 101. Not open to students who have completed Economics 251. Students who have completed Economics 251 must have permission of the instructor.

*Hours* 208(F) 208(S)

**ECON 209** Labor Economics

The determination of wages, education levels, and on-the-job training through market and non-market mechanisms. Topics may include: the demand and supply of labor, models of discrimination, the role of unions, the theory of human capital, and the theory of internal and segmented labor markets. Empirical work will draw from simple statistical results and U.S. labor history. The course covers both traditional and radical approaches to the study of labor economics. Prerequisite, Economics 101. Students who have completed Economics 251 must have permission of the instructor.

*Hour*

**ECON 210 (S)** U.S. and World Agriculture (Same as Environmental Studies 210) (Not offered 1985-86.)

This course will examine both historical and current issues in agriculture. Topics covered will include: 1) the mechanization of U.S. farms and its impact on farm owners and workers; 2) land tenure and farm ownership patterns over time and across regions including changes in size of farms and corporate farming; 3) farm credit, farm foreclosures and government intervention; 4) land reform in developing countries; and 5) U.S. agricultural policy including price supports, water pricing, food aid, grain exports and grain embargoes.

*Hour*

**ECON 211(S)** Organizations and Economics (Not offered 1985-86.)

Economic analysis often regards firms or governments as entities which act purposefully and rationally with well defined objectives. This course examines the behavior inside political and economic organizations and attempts to understand their complexity. Topics may include: hierarchy and decentralization of decision making; relationships between strategy and organizational structure; effects of limited information and rules of thumb on the behavior and strategy of organizations; and the ways in which goals are set by bureaucracies (public or private). Examples from the real world of business and government will be used in illustrating the main concepts. Prerequisite, Economics 101. Students who have completed Economics 251 must have permission of the instructor.

*Hour*

**ECON 212** Political Economy of South Africa (Not offered 1985-86.)

South Africa is analyzed in comparative context: What are the unique features of its political economy? What features are shared with other developing countries? Topics may include the relationship between settler colonialism and economic dualism; the roles of race and class in the origins of apartheid; the development of labor markets and
Economics

the role of migrant labor; the economic foundations of unemployment and inequality; the economic and political consequences in changes in the relative importance of mining, agriculture and industry in the course of development; the role of multinational corporations and the prospects for political and social change.
Prerequisite, Economics 101.

_LEVY_

**ECON 213 Financial Institutions**

This course will explore the workings of financial institutions and markets in the U.S. economy. Financial institutions such as commercial banks play an important role in coordinating market activities facilitating the creation and exchange of financial assets which enhances the possibilities for saving and investment; hence attention will focus on how financial institutions are organized and how well they perform. Other questions to be addressed include: How are financial assets priced? Why and how are financial markets and institutions regulated by the government? What influence do these markets have on economic activity? How do we explain the many financial innovations of the past decade? The material in this course will not duplicate the topics covered in Economics 317, nor is this a course on the stock market.
Prerequisite, Economics 101. Students who have had Economics 251 must have permission of the instructor.

_LEVY_

**ECON 214(F) History of Economic Thought (Not offered 1985-86.)**

Major developments in economic thought from before Adam Smith through the Keynesian revolution. Emphasis will be placed on the interaction of economic events and the growth of economic ideas, as seen in classical, Marxian, neoclassical, institutionalist and Keynesian theories. The course will also consider contemporary economic paradigms, including radical, post-Keynesian, neo-Austrian and humanistic approaches.
Prerequisite, Economics 101.

_STUART_

**ECON 215(S) The World Economy**

An introduction to international trade and finance with an emphasis on issues of current interest. Topics to be discussed may include: why we trade; theories of the pattern of trade; the effects of tariffs and other trade barriers on national wealth and income distribution; the balance of payments, foreign exchange markets and the way they interact with the domestic macroeconomy; LDC’s and the international debt crisis. Students should not consider taking both this course and Economics 358 or 360. Students who have completed Economics 251 must have permission of the instructor.

_SABOT_

**ECON 216 Urban Economics (Not offered 1985-86.)**

The problems, policies and prospects facing urban America will be the focus of this course. It will utilize the tools of microeconomics to analyze the forces that have shaped the evolution, structure, growth and decline of American cities. It will also examine a number of policy issues, including: poverty, discrimination, housing, education, transportation, local public finance. Throughout this course, possible solutions to these problems will be explored, with their associated costs.
Prerequisite, Economics 101. Students who have completed Economics 251 must have permission of the instructor.

_IFILL_

**ECON 217(S) Environmental and Resource Economics**

Examines issues of quantifying environmental benefits and damages, of the nature of environmental impact analyses, and of the extraction of renewable and non-renewable natural resources. Theoretical results will be compared to actual policies recommended by such agencies as the Environmental Protection Agency and the Department of the
Economics

Interior. The course also will attempt to address the ultimate environmental problem of nuclear weapons.
Prerequisite, Economics 101. Students who have completed Economics 251 must have permission of the instructor.

Hour

ECON 218 Black Americans and Economics
This course analyzes economic issues affecting black Americans. Chronologically we will go from the African slave trade to affirmative action. Issues under slavery may include the African slave trade, the profitability and efficiency of slavery, the motivation of slaves, urban slavery and industrial slavery. Issues in late nineteenth century through World War II may include agricultural tenancy, the role of country store merchants in exploiting tenants, discrimination, southern economic growth, occupations of blacks and migration to the North. Current issues addressed may include the role of government intervention, the controversy over race versus class and problems of the underclass.
Prerequisite, Economics 101.

Hour

ECON 220 U.S. Economic History (Not offered 1985-86.)
The history of the economic development of the United States from colonial times to 1900 will be explored. Topics will include: Colonial development, the economic causes of the Revolution, settlement of the frontier, agriculture in the North, slavery in the South, early industrialization, the rise of big business and the changing role of government.
Prerequisite, Economics 101.

Hour

ECON 222 Comparative Economic Systems (Not offered 1985-86.)
The course will help students identify and analyze alternative ways of organizing economic life and help them assess options they face as well as lend insight into the economic system in which they live. Effects of economic systems on efficiency, growth and income distribution, and on other aspects such as sexual and racial equality, environmental quality, bureaucratic control, alienation and technology. Case studies may be drawn from the United States, Soviet Union, Yugoslavia, Scandinavia, Great Britain, India, Hungary and Japan.
Prerequisite, Economics 101.

Hour

ECON 224(F) Change in Latin America
Obstacles to development in Latin America, kinds of policies adopted to cope with them in different countries and tensions generated in both the economic and political domains by conflicts of interests and ideologies. Attention will be directed particularly to the ways in which Latin American countries relate to the outside world, to the question of who wins and who loses by alternative approaches to development, and to the ways in which the need for attention to economic efficiency may conflict with or promote desired structural changes.
Prerequisite, Economics 101.

Hour

ECON 227(S) Economics of the Middle East (Not offered 1985-86.)
Analysis of some distinctive economic processes that are changing the economies of Middle Eastern countries. The course will focus especially on Egypt, and the process of shifting from a highly controlled toward a more liberal economy; on Israel, and the process of pursuing rapid economic development despite resource constraints; and on Saudi Arabia, and the process of managing and investing large oil revenues. Students will do independent study and short papers on distinctive economic problems in any of the Middle Eastern countries. The course will attempt to explore implications of the
Economics

economic changes for internal political developments, prospects for peace between Is­
rael and the Arab countries, and world petroleum and financial markets.
Prerequisite, Economics 101. Students who have completed Economics 252 must have
permission of the instructor.

Hour

ECON 228(F) Economics of Education
An application of economic theory and policy analysis to education. The focus is on
such issues as: To what extent does educational expansion contribute to economic growth,
reduce income inequality and increase intergenerational mobility? Why have govern­
ments intervened in the market for education and what have been the consequences of
intervention? How do the manpower requirements and rate of return approaches to
education planning compare? These issues will sometimes be empirically assessed in
low-income countries where educational expansion has been particularly rapid.
Prerequisite, Economics 101.

Hour

ECON 230 Growth and Equity in Asia (Not offered 1985-86.)
Analysis of interactions between economic growth and equitable income distribution
in the developing countries of Asia. The course will focus especially on South Korea,
and the implications of manufactured export expansion in a mixed market economy;
on Malaysia, and the implications of natural resource development in a multiracial
society; and on China, and the implications of changing development strategies in a
communist political economy. Each student will do independent study and a short pa­
er on an important development problem of any Asian country in the arc from South
Asia to East Asia. The course will attempt to consider economic processes in the context
of countries’ distinctive histories, resource endowments and social systems.
Prerequisite, Economics 101. Students who have completed Economics 252 must have
permission of the instructor.

Hour

ECON 232 European Economic History (Not offered 1985-86.)
This course examines the evolution of the European economy from prehistory to our
own time. It surveys demographic, agricultural, industrial, commercial, technological
and organizational developments; and it uses economic analysis to explore their inter­
connections. Prerequisite, Economics 101.

Hour

ECON 251(F,S) Price and Allocation Theory
A study of the role of relative prices in the allocation of resources to alternative uses.
Attention is given to households, to profit-seeking enterprises and to capital and labor
markets. Subjects include: characteristics and consequences of competitive and monop­
olistic market structure, implications of market performance on functional and size
distributions of income, sources and results of market failure and limitations of main­
stream analysis.
Prerequisites, Economics 101 and any 200 level course in economics.
Hours 251(F) 251(S) 251(F) 251(S) 251(F) 251(S) First semester: BRADBURD, SRINAGESH
Second semester: FAIRRIS, IFILL, ROSS

ECON 252(F,S) Income and Growth Theory
This course is about macroeconomic theory and policy: the determinants of aggregate
output, employment and prices, and the tools of monetary and fiscal policy used by the
government in attempts to promote growth and limit inflation. The purpose is both to
Economics

explain macroeconomics theory and to use it as a framework for discussing the current state of the U.S. economy and for analyzing recent economic policy.

Prerequisites, Economics 101 and any 200 level course in economics.

*Hours*

252(F)

252(S)

First semester: YOUNGER

Second semester: C. HILL, WAKEMAN-LINN

**ECON 253(F,S) Empirical Economic Methods**

An introduction to applied quantitative economic analysis. The course will acquaint students with the empirical dimension in economic research by familiarizing them with the basic empirical methods used by economists and with their strengths and limitations. Emphasis throughout will be on the practical application of the principles being developed. The course neither assumes a knowledge of, nor uses, mathematics beyond simple algebra. Computer work will be part of the course, but no previous training in computers is expected.

Prerequisite, two courses in economics.

*Hours*

253(F)

253(S)

First semester: MCFARLAND

Second semester: HORRIGAN

**ECON 255 Econometrics**

An introduction to the theory and practice of applied quantitative economic analysis. This course familiarizes students with the strengths and weaknesses of the basic empirical methods used by economists to evaluate economic theory against economic data. Emphasizes both the statistical foundations of regression techniques and the practical application of those techniques in empirical research. Computer exercises will provide experience in using the empirical methods, but no previous computer experience is expected. Previous courses in statistics may prove helpful, but are not necessary. Highly recommended for students considering graduate training in economics or public policy.

Prerequisite, Mathematics 108 or equivalent plus two courses in economics.

**ECON 312 Markets and Morals**

(Not offered 1985-86.)

The course explores relations between ethics and economic organization. Concerns include the economic functions of moral rules, the appraisal of economic institutions and policies from a moral point of view, and the impact of economic institutions and policies on people's moral character and attitudes. Draws on historical and contemporary sources.

Open to sophomores. Prerequisite, two courses in economics or permission of instructor.

Enrollment limited to 25. Preference given to students with a background in philosophy.

**ECON 316 Marxian Economics**

(Not offered 1985-86.)

A general introduction to orthodox Marxian ideas concerning economic life, with emphasis on the Marxian conception of the object and method of economic science, the theory of value and exchange and the theory of capital accumulation and crisis. We may also study the work of neo-Marxists who continue to utilize orthodox Marxian notions of competition and dynamic equilibria.

Prerequisite, two courses in economics or permission of the instructor.

Students with only 101, but with prior work in philosophy or political theory, are urged to seek permission of the instructor.

**ECON 317 Managerial Finance**

A survey of business finance, the stock market and managerial decision-making. The stock market's social function in allocating resources, facilitating investment and providing incentives for managers. Topics, may include: financial statement analysis; mod-
Economics

elements of stock and bond prices; capital asset pricing model; cost of capital; models of decisions on investment, debt and dividends; “efficient markets” theories.
Each student writes an extensive case study of some firm.
Open to sophomores. Prerequisite, two courses in economics.

Hour

[BOLTON]

[ECON 319(S) Radical Political Economy (Not offered 1985-86.)]
Analysis of domestic and international economic issues from a radical perspective, where radical means “getting at the root” of things utilizing the Marxian and neo-Marxian tradition in economic and social theory. Topics may include: Marx’s theory of human nature and alienation; critique of neoclassical economics; the essence of Marx’s labor theory of value; the creation, reproduction and crises of advanced capitalism on a national and international scale including the role of corporations, technology, racism, sexism, the state, education and imperialism.
Prerequisite, two courses in Economics.

Hour

FAIRRIS]

Political Economy 301 Analytical Views of Political Economy (Same as Political Science 333)
Political Economy 301 may be included in the courses taken to satisfy sequence requirements in the Economics major but does not qualify as an advanced elective.
(See under Political Economy for full description.)

ADVANCED ELECTIVES

[BOLTON]

[ECON 353(S) Mathematical Economics (Not offered 1985-86.)]
This seminar will explore selected topics in economics using more advanced and more intensive mathematical techniques than in other advanced economics courses. Its purpose is to demonstrate the strengths and limitations of the use of mathematics in the analysis of economic issues. The topics may include duality theory and the application of the theory of convex sets in microeconomics; optimal control theory in its use in analysis of dynamic processes; the use of axiomatic logic in economic theory; the use of matrix and vector algebra in linear programming and input-output analysis; the applications of probability theory to the economics of information. The particular topics covered in any given year will depend on the interests of the instructor.
Prerequisites, Economics 251, 252, 253 or 255, Mathematics 108 and permission of the instructor. Enrollment limited.

Hour

FAIRRIS]

ECON 354 Issues in Economic Theory
This course is designed to show, through a few selected subjects, how current economic theory goes beyond the textbook theory of Economics 251 and 252. While the issues chosen for study vary from year to year to reflect the interests and research of the instructor, their unifying theme is that they develop more realistic concepts than the elementary conventional wisdom of intermediate theory. The specific issues chosen to illustrate what economists are currently worrying about have included: information and uncertainty; preferences and rationality; time and timing; theories of economic theory; expectations and discounting the future; relationships in exchange and contracts; firms and the economics of internal organization; morality, deception and honesty; conflict and inconsistency.
Prerequisites, Economics 251 and 252. Enrollment limited to 20.

Hour

WINSTON

[ECON 356 Applied Quantitative Analysis (Not offered 1985-86.)]
This course allows students to apply the tools of statistics and econometrics to a set of well defined problems in economic analysis. The problems are chosen from accessible
Economics

journal articles which reflect both the instructor's research interests and provide examples of the use of a range of techniques. The course is geared for students who have completed either the Statistics or Econometrics course. The philosophy of the course is to develop a conceptual understanding of quantitative analysis using a hands on approach to data. A typical semester may include a consideration of the problems of multicollinearity, autocorrelation, heteroscedasticity and simultaneous equation bias, and selected other topics not covered in Economics 253 or 255.

Prerequisites, Economics 253 or 255, Economics 251 and 252 or permission of the instructor.

Horrigan

[ECON 357] U.S. Economic History (Not offered 1985-86.)

Study of a series of topics in U.S. economic history, with emphasis on tools and methods economic historians use to illuminate and explain historical phenomena. Topics may include: economic causes of the American Revolution, the cost of the Civil War, racial discrimination, bank failures, railroads and economic growth, extraction of natural resources, mechanization of agriculture and growth of government.

Prerequisites, Economics 251 and 252.

Horrigan

ECON 358(F,S) International Economics

Application of economic theory to international policy issues, with particular concern for the ways in which microeconomic and macroeconomic issues interact with each other. Analysis of the joint consequences for United States domestic economic choices and for the world economy of the movement to fluctuating exchange rates among the major industrial countries. Topics include: exchange rates and inflation; consequences for income distribution of trade and exchange policies, the possibilities for more outward looking strategies by the developing countries; export competition among the industrial countries; multinational corporations and the problem of applying economic principles to nations dealing with firms; national self-determination versus integration in the world economy; areas in which national economic control breaks down in dealing with international problems and possible paths toward better solutions.

Prerequisites, Economics 251 and 252. Enrollment limited to 20.

C. Hill

ECON 359 Macroeconomic Theory Since Keynes

This course examines schools of thought which have emerged since Keynes' writings. We begin with a description of the Classical theory as it was understood at the time of Keynes. We then explore the various interpretations of Keynes' break from the Classical tradition. We first consider the development of the Neoclassical synthesis, the idea that Keynes' work is a special short run case of the Classical model. Progress since the development of the Neoclassical synthesis will be illustrated by three themes. First is the failed attempt by quantity disequilibrium theorists to develop an alternative macroeconomic modelling structure. The theme of effective demand failures is developed and used to examine aspects of the Post-Keynesian school of thought. Next to be considered is the recent emergence of the new classical tradition with its conclusion that fiscal and monetary policy cannot permanently shift the Phillips Curve tradeoff between inflation and unemployment. Specific concepts include the natural rate hypothesis, rational expectations and the Lucas Supply function. The final theme is the role of the labor market in macroeconomic theory. In this section we explore the assumptions of wage and other structural rigidities and the role of search and contract theory.

Prerequisite, Economics 252. Enrollment limited to 20.

Horrigan

ECON 360(F) International Finance

This course studies the macroeconomic behavior of economies that trade both goods and assets with other economies: international financial transactions, especially the...
Economics

buying and selling of foreign money, the role of central banks and private speculators in determining exchange rates and interest rates, and the effects of international transactions on the overall performance of an open economy. Additional topics may include the "asset market approach" to exchange rate determination, the nature and purpose of certain international institutions and important current events.

Prerequisites, Economics 251 and 252. Enrollment limited to 10.

Younger

ECON 362 Multinational Corporations
Study of the modern multinational corporation and its impact on international trade and investment and on the effectiveness of national governments' policies. Are multinationals insulated from effective control by host governments? Do their movements of capital aggravate monetary instability? Role of multinationals in spread of technology, determination of location of production in the international economy, and stimulation of competition and development of entrepreneurship in host countries. Competition among developing countries for foreign investment. Problems of taxation of multinationals. Case studies from international oil industry and other industries.

Prerequisite, Economics 251. Enrollment limited to 20.

Younger

ECON 363 The Economics of Technological Change (Not offered 1985-86.)
Examines various theories of technological change and the empirical evidence relevant to those theories. Special attention given to introducing technological change into the theory of the firm. Implications of technological change for economic variables including aggregate output, its composition, balance of payments, employment, income distribution.

Prerequisite, Economics 251. Enrollment limited to 20.

Srinagesh

ECON 364(F) The Economics of Development (Not offered 1985-86.)
Course begins with a study of various meanings of development and the origin of such meanings. Then attention is given to a variety of general theoretical approaches to development. This is followed by an examination of a number of specific aspects of these theoretical approaches: capital formation, technical change, education and labor training, employment, institutions and institutional change. Class reports and term paper are required.

Prerequisite, Economics 251. Students who have taken Economics 204 must obtain permission from the instructor. Enrollment limited to 20.

Bruton

ECON 366(F) Natural Resource and Environmental Economics
Economic analysis of non-market goods, theoretical and practical approaches to determining optimal rates of extraction of renewable and nonrenewable resources (both in a certain and an uncertain world) and approaches to measuring environmental costs and benefits. Theoretical examination of how externalities affect Pareto optimality in production and exchange, and analysis of philosophical underpinnings of benefit-cost measurement. Applications of theory to actual problems faced by companies and government agencies under current legal, institutional and political conditions.

Prerequisite, Economics 251. Students who have taken Economics 217 must obtain permission from the instructor. Enrollment limited to 20.

P. Clark

ECON 367 Money and Finance
Analysis of the roles that money, financial institutions and corresponding governmental institutions play in the United States. Topics may include the Federal Reserve System, the role of monetary policy in the inflation process, the use of discretionary monetary policy to stabilize the economy, and the regulation of various banking insti-
tutions (including multinational banks) will be examined. The constraints placed on monetary policy by the international arena will also be studied.

Prerequisite, Economics 252.

Wakeman-Linn

[ECON 369(S) Investment in Human Capital (Not offered 1985-86.)]

Examination of the antecedents and consequences of investment in human beings via education, health, migration and on-the-job training. Particular focus may include microeconomic analysis of determinants of investments people make in themselves, their children and their employees; macroeconomic analysis of the role of human capital formation in economic development; public policy implications; human capital theories and empirical tests of these theories. Recent topics have included: equity versus efficiency in the educational sector; the capital market for investment in humans; obsolescence of human capital; changing rates of return to BAs, MDs, engineers; determinants of the demand for health; the brain drain; international trade implications of changes over time in the mix of labor skills.

Prerequisite, Economics 251. Enrollment limited to 20.

McNally Wassenar

[ECON 370(F) Public Sector Studies (Not offered 1985-86.)]

The course will focus on microeconomic aspects of the role government plays in a market economy. Topics that may be included are: income distribution and economic justice, the economics of political institutions, benefit-cost analysis of public expenditures, taxes and the microeconomic foundation of supply-side economics.

Prerequisite, Economics 251. Enrollment limited to 20.

IFILL

[ECON 371(S) Economic Justice]

This course explores both the more narrow concept of economic efficiency as well as the broader, more normative issue of economic justice. After establishing the notion of a general equilibrium in a market economy, we study various reasons for market failure: imperfect competition, externalities, imperfect information, uncertainty and public goods. Since economic efficiency implies nothing about the final distribution of rewards, we will then turn to the various ways in which economists and philosophers have grappled with the larger, distributional questions of equity, justice and fairness in society. The latter will include utilitarian, libertarian, Rawlsian and radical notions of justice.

Prerequisite, Economics 251. Enrollment limited to 20.

Fairris

[ECON 372 Urban Economics (Not offered 1985-86.)]

This course will examine many of the same urban problems addressed in Economics 216, including poverty, discrimination, housing, growth and decline of the city, etc. However it will analyze these policy issues in greater depth and will develop more sophisticated economic models. Students are expected to write a research paper exploring a policy issue relating to a particular urban area.

Prerequisite, Economics 251. Enrollment limited to 20.

Hour

[ECON 373(S) Contracts in Markets and Firms (Not offered 1985-86.)]

Several issues related to the theory of firms will be explored. Topics include economic incentives that arise under different contractual arrangements—shirking, exploitation and swindling and the factors that motivate and limit opportunistic behavior—competition, specific human capital, repetition, law, morality, efficiency and distribution of income.

Prerequisite, Economics 251. Enrollment limited to 20.

Alston]
ECON 374  Forecasting Policy
The use of macroeconometric models for forecasting aggregate economic activity and for analyzing the effects of changes in monetary and fiscal policies. Intensive review of macroeconomic theory plus readings in the theory of macroeconomic policy and the theory of political business cycles. Students make extensive use of computer-based econometric models of the U.S. economy.
Prerequisites, Economics 252 and 253. Enrollment limited to 20.

ECON 375  Economic Demography (Not offered 1985-86.)
Examination of the economic implications of population size, composition and rate of change in the U.S., other developed countries and the less developed countries. Elementary demographic concepts; economic determinants of fertility, mortality, migration, and family characteristics and family stability. Effects of population on growth, employment and unemployment, demands for public services and the environment. Rapid population growth as a problem in developing countries; implications of slower population growth and changing age composition for the U.S.
Prerequisite, Economics 251. Enrollment limited to 20.

ECON 378(F)  Industrial Organization
An examination of the ways that market structure and firm behavior interact to affect the economic performance of American industry. Recent topics have included: the nature of oligopolistic rivalry; competitive strategy; and the nature and effects of antitrust legislation.
Prerequisite, Economics 251. Enrollment limited to 20.

ECON 380  Economic Regulation
Government regulation involves the direct intervention of public policy into private market transactions. This course explores two basic areas in which regulatory agencies have been involved—economic and social regulation— with a view to understanding why regulation takes place, how it works and when it does not work. It examines the economist's case both for and against regulation and analyzes regulatory performance in some of the following areas: energy, transportation, telecommunications, product and workplace safety, environmental protection.
Prerequisite, Economics 251. Enrollment limited to 20.

ECON 384  Firms and Capital Markets
The subject matter is similar to that of Economics 317, but at a more advanced level, applying economic theory and statistics to the question of how stock and bond prices are determined. Theory of managerial behavior in determining the financial structure of the firm. Effect of financial structure on the value of a corporation's stocks and bonds. The other topics include portfolio analysis, bankruptcies, mergers and takeover bids. Students may not receive credit for both this course and Economics 317.
Prerequisites, Economics 251, 252 and 253 or 255.

ECON 394  History of Economic Thought (Not offered 1985-86.)
Material similar to Economics 214, but at a more advanced level. Special attention to methodological issues on the structure of scientific revolutions and the proper relation between economic events and economic ideas. Readings include both original works (e.g., Smith, Marx, Keynes) and secondary commentaries.
Prerequisite, Economics 251 or 252.
ECON 397, 398  Independent Study
Students are invited to apply to undertake independent study on subjects of their own choosing. Interested students should consult with a faculty member about designing an appropriate project well in advance of spring registration.

With permission of the department, an approved project may count as one of the two advanced electives required for the major.

Prerequisites, consent of an instructor and of the department chairman.

MEMBERS OF THE DEPARTMENT

ECON 401  Senior Seminar
The primary emphasis of this senior course is to strengthen the student's skill and sensitivity in applying economic analysis and research methods to social policy problems and theoretical issues. A series of current issues will be examined in seminars, with students carrying substantial responsibility in investigating relevant theoretical analyses and empirical information, and conducting the seminar discussion. One long and one short paper and an oral examination.

Required of all senior majors. Prerequisites, Economics 251 and 252.
Hours
C. Hill, Horrigan, McFarland, Srinagesh

ECON 404  Honors Seminar
Research seminar for candidates for honors in economics. Each candidate prepares a major paper. Candidates will meet frequently as a group to discuss problems common to all of them (such as empirical methods, data sources and theoretical approaches) and each one will report on his work at various stages for criticism by the group as a whole. Some work required during the fall semester.

Required for honors in economics unless a student writes a yearlong thesis.
Prerequisite, completion of the Honors WSP (W33) and admission by the department.
Hour
Younger

ECON 493-W31-494  Honors Thesis
A yearlong research project for those honors candidates admitted to this route to honors. Prerequisite, admission by the department in the spring of the junior year.

ECON W33  Honors Winter Study Project

GRADUATE COURSES IN DEVELOPMENT ECONOMICS
Juniors and seniors majoring in Economics or Political Economy may, with the permission of the chairman of the Center, enroll in graduate courses given by the Center for Development Economics (described below). A Center course may substitute for an advanced elective in the major with permission of the chairman of the department.

ECON 501  Development Economics I
The objective is to examine those concepts, tools and models in contemporary economic theory that have proved most relevant to development problems and explore how they can usefully be applied to public policy. Topics include principles of optimal resource allocation; aggregative analysis and growth models; sources of economic progress; operation of markets, prices and controls; and applications to public policy for food production, consumption and marketing.
Hour
Levy

ECON 502  Development Economics II
Further aspects of economic theory and policy analysis which are most relevant to development problems. Topics include technological change and innovation; human capital accumulation, employment and labor markets; income distribution; agricultural and industrial development and development strategies.
Hour
Sabot
ECON 503  Statistics in Economics
Study of statistical techniques useful in applied economic analysis of development problems, and an introduction to the use of computers in statistical work. Topics include descriptive statistical measures; simple and multiple regressions; statistical inference; and problems that arise in estimating statistical relationships. A number of practice cases are used.

ECON 507  International Trade and Development
The foreign exchange gap in developing countries and possible means to deal with it; evolving theories of comparative advantage and their relevance to trade policy; strategies of import substitution and export promotion and their consequences for employment, growth, and income distribution; foreign investment, external debt, IMF stabilization programs and the world financial system.

ECON 508  Development Planning
Techniques of development planning for the overall economy and for investment in projects. Topics include aggregate economic projections in a national accounts framework; interindustry analysis, sector consistency and effects on income distribution; economic evaluation of benefits and costs of investment projects and choices in financing of projects. A number of practice cases are used.

ECON 509  Money and Public Finance
Financial aspects of development programs. Consideration of the role of finance in macroeconomic equilibrium, fiscal and monetary policies in inflation and development of financial markets. Examination of the principal kinds of tax instruments, their impacts on investment and saving, resource allocation, stabilization and the progressivity of tax burdens.

ECON 511  Econometrics (Same as 255)
Basic methods of bringing economic theory and data together to provide empirical guidance for policy formulation, including use of computers in econometric analysis. This course covers techniques of econometric analysis going beyond 503 and uses a more mathematical exposition. Admission to 511 depends on previous background in statistics and mathematics.

RESEARCH SEMINARS

ECON 514  Structural Adjustment and Debt Management
Problems of adjustment of the balance of payments and economic structure in the changing world economic environment of the 1970's and 1980's, with particular attention to management of external borrowing and risks of debt crises. External shocks and balance of payments reactions, indicators of risk of debt crises, effects of domestic inflation, use of fiscal and monetary policies, managing and rescheduling debt.

ECON 516  The IMF and LDC's
Examines IMF stabilization policies and conditionality in developing countries. Topics covered include theoretical interpretation of payments crises, with special emphasis on the monetary approach to the balance of payments and discussions of case studies of crises and stabilization schemes. The course also addresses current debates surrounding Fund conditionality and the proper role of the Fund in the world economy.
ECON 518  Regional and Resource Development
Problems of lagging regions within developing national economies; investments in natural resource development and economic infrastructures; interregional migration of people; planning of urban centers and urbanization policies.

BOLTON

ECON 520  Research Studies
Each Fellow carries out an individual research study on a topic in which he or she has particular interest, usually related to one of the three seminars. The approach and results of the study are reported in a major paper. Research studies are analytical rather than descriptive and in nearly all cases include quantitative analyses. Often the topic is a specific policy problem in a Fellow's own country.

HORRIGAN

ENGLISH (Div. I)
Departmental Staff for 1985-86

Chair, Professor PETER BEREK


MAJOR PROGRAM
The course offerings in English enable students to explore English and American literature in a variety of ways and to satisfy their interests in particular authors and literary periods, in the major types of literature—poetry, drama and fiction—and in creative writing. English 101 is required of all students intending to elect further courses in English, whether as majors or not. (The only exceptions to this rule are English 103 and 286, the expository writing courses, and 281 and 283, the introductory creative writing courses, for which there are no prerequisites.) Normally all courses except the senior seminars are open to students not majoring in English.

The English major program is designed to encourage familiarity with a broad range of literature from the Middle Ages to the present day, to afford acquaintance with representative contexts in which one can appreciate literary works, and to foster an understanding of the nature of literary study. Each student can fashion his or her own sequence of study within a basic pattern that insures coherence and variety. This pattern comprises at least nine courses, including English 101, 301, 302, a senior seminar (402, 404, 406, 408, 410 or 412) and electives chosen from specified categories of courses described below. The selection of other courses should be made after consultation with a departmental adviser and in the light of the student's interest and prior experience.

Majors are urged to select a balance of intermediate and advanced courses and, since the required survey courses are in English literature, to elect one or more courses dealing with literature by American writers, both white and nonwhite. Many of the greatest works of English literature were written before 1800; students are also urged to elect courses in addition to the required survey (English 301, 302) in the Middle Ages, the Renaissance and the eighteenth century. They are also urged to elect collateral courses in subjects such as art, music, history, philosophy, religion and foreign languages with a view to supporting and broadening their studies in literature. In particular the study of classical and modern languages, as well as of foreign literatures in translation is strongly recommended.

Requirements
The nine courses required for the major must include the following:
(1) English 101 The Study of Literature. Students exempted by the department from 101 will substitute an elective course.
English

[2] English 301 *The Middle Ages to the Enlightenment* and 302 *The Enlightenment to the Early Twentieth Century*. (These courses are open to all students who have taken English 101). Students who are planning to major in English and who also expect to apply to study in the Williams program at Oxford should elect 301, 302 in their sophomore year. Taking 301, 302 sophomore year is also recommended for students who think it likely both that they will major in English and that they will study abroad as juniors. Ordinarily, all English majors complete 301, 302 by the end of the junior year.

[3] A **major author** course, concentrating on the work of one or two writers.

[4] A **literary criticism** course, in which the problems, methods or history of criticism are the object of study. (May be taken as a senior seminar.)

[5] A course in a particular **kind** of literature: literature, that is, of a specific genre (e.g., pastoral, epic, tragedy) or mode (e.g., allegory, satire), or literature preoccupied with a given subject (e.g., the supernatural, racial or sexual roles). Normally these courses will follow one or more kinds of literature through a considerable span of historical development or transformation. (May be taken as a senior seminar.)

[6] A senior seminar. The seminars provide students who will have pursued diverse areas of study the common experience of focusing on a basic literary problem. Each seminar is ordinarily designed to satisfy either the **criticism** or the **literary kind** requirement, and each draws in some significant way on the readings of English 301 and 302.

THE DEGREE WITH HONORS IN ENGLISH

The English Department offers both thesis and specialization routes toward departmental honors. Both routes involve, in addition to the nine courses required for the major, an Independent Study Project in the fall of the senior year and a WSP for Honors. Application to enter one of the programs must be made before or during spring registration in the junior year.

THESIS PROGRAMS

The regular thesis program involves the completion of a substantial scholarly and/or critical essay during the fall semester and Winter Study Period of the senior year. (In exceptional cases, if the student is able to present compelling reasons for doing so, work on the essay may be done during Winter Study Period and the spring semester of the senior year.) A candidate for the program should have at least a B plus (9.0) average in courses taken in English, but the department's permission to write a thesis will not depend solely on course grades.

A student wishing to enter the regular thesis program must consult a member of the department before spring registration of the student's junior year. At this time the student will present as specific a description as possible of the thesis topic. The faculty member will then either recommend the student as a thesis candidate to the whole department or propose other courses of action to the student should the project seem inappropriate as a thesis—the Honors specialization route, a regular independent study project or regular courses in the department. Students notified of their admission to the thesis program will meet with their advisers before the end of the semester to discuss any reading or work that might usefully be pursued over the summer.

Students admitted to the thesis program will register for an Independent Study Project (497) in the fall. No later than the third week of the fall semester, the student will present to the adviser a 2-3 page prospectus for the thesis containing a coherent proposal indicating the range of the thesis, the questions to be investigated, the arguments to be developed and a brief bibliography. After reviewing the prospectuses and consulting with advisers, the Honors Committee will determine whether or not the student should proceed with the thesis. If by the end of the fall semester the student has produced a substantial first draft which is of quality acceptable to the adviser, the student will register for WSP 31, Senior Thesis and will spend the Winter Study Period revising and refining the work. Otherwise the student's work will be graded as a regular Independent Study Project and the student will register for a regular Winter Study course.

The required length of the honors essay will depend upon the particular nature of the student's project, but it will normally be between 35 and 75 pages. All theses are due on
the last day of Winter Study. (Theses begun in the Winter Study Period are due on the last day of classes in the spring semester.) Each thesis will be read by two faculty members other than the student's adviser. The two readers and the adviser will confer to make a recommendation to the department that the student be granted Highest Honors, Honors or no Honors. Honors of any kind are contingent upon satisfactory completion of courses in the major during the spring semester of the senior year.

The creative writing thesis program involves the completion of a significant body of fiction or poetry during the fall semester and Winter Study of the senior year. Normally the requirement for admission will be outstanding work in an introductory and an advanced workshop, a recommendation from one of the creative writing teachers (who will then act as thesis adviser) and the approval of the departmental Honors Committee. This thesis program follows the same schedules and methods of evaluation described above.

In both regular and creative thesis programs, Highest Honors are normally awarded only to students whose performance in both the honors program and regular courses in the major has been exceptional.

SPECIALIZATION PROGRAMS

The department invites qualified students to propose a cluster of courses and an independent study—all related by some common concern, for instance, with the same period or literary form, or with similar literary and/or cultural issues—as a program of special studies for honors. The program consists of 1) two related courses (at least one of which is given by the English department, and both of which will have been taken by the end of fall term in the senior year); 2) an independent study—English 497—taken in the fall term of the senior year, dealing with the student's area of specialization; 3) continuation of this independent work (W30, Honors Specialization Route) during the Winter Study Period; and 4) an oral examination on the student's particular program administered toward the end of the Winter Study Period by the student's sponsor and one or more faculty members familiar with the area of specialization.

Normally an honors candidate will have at least a B plus (9.0) average in English, but the department's decision to admit a student to candidacy will not depend solely on grades. A student wishing to present a program of special studies to commence in the fall of the senior year must consult a member of the department before spring registration of the student's junior year. If the program appears to be viable, the faculty member will present it to the department. After the registration period, all applicants for the specialization program will be reviewed by the department and students will be notified of their admission into the program (or of the denial of their proposal).

The independent study is intended to provide an opportunity for attempting a synthesis or overview of the area covered by the two prerequisite courses—in many cases by reading and comparing not only primary works but secondary works which set out generally to describe or define the period, literary form or other issues constituting the area of specialization. Students will normally be expected to complete three 10-page papers (or their equivalent) during the semester of independent study. If the work during the independent study is of quality acceptable to the student's adviser, the student will proceed during the WSP with W30, Honors Specialization and will write another 10-page essay which may be an extension of the concerns of the previous papers or a substantial revision of one of them. At the end of the Winter Study Period the student will present this essay (along with a bibliography) to those faculty members conducting the oral exam. The essay, along with the student's other investigations, will provide a basis for the oral exam.

The awarding of Honors will be decided by the department, on the recommendation of the student's sponsor and the faculty members participating in the oral exam, based on performance in the two related courses, the semester-long independent study, the Winter Study and the oral examination, and will be contingent upon the satisfactory completion of courses in the major during the spring semester of the senior year. Highest Honors are normally awarded only to students whose performance in both the honors program and other courses in the major has been exceptional.
English

Students are encouraged to propose specialization routes of their own devising. The groupings listed below are meant only to suggest the kinds of specialization that might be proposed.

Medieval Studies—Two of the following: English 303, 304, 305, 307 and any of the courses listed in the Catalog under “Medieval Studies” plus an independent study.

The Epic—Two of the following: English 304, 315, 360 and relevant courses offered by the Classics department plus an independent study.


LITERATURE COURSES

ENGL 101(F,S) The Study of Literature
An introduction to the close reading of poetry, prose fiction and drama through the study of several major writers. The course is designed to develop the student’s ability to understand and respond to works of literature through class discussion and the writing of critical essays.

Hours 101(F) 101(S)

NOTE: For courses in the writing of essays see 103 and 286 under the section WRITING COURSES.

NOTE: 200 level courses are open to upperclassmen and to freshmen who have credit for English 101.

ENGL 201(F,S) Shakespeare’s Major Plays
About ten of the major plays, studied so as to reveal Shakespeare’s changing interests and his developing powers as a dramatist and poet. Some consideration of the Elizabethan intellectual milieu and of critical and theatrical traditions.

Prerequisite, English 101. (Major Author)

Hours 201(F) 201(S)
First semester: BUNDTZEN, KNOPP, C. PARK Second semester: I. BELL, BERK

ENGL 202 Modern Drama
Drama of the twentieth century. The course will trace the developing techniques and concerns of modern drama from Ibsen to Performance Art, focusing particularly on the modernists’ heightened awareness of the literary, psychological and political resonances of the theatrical medium itself. We will look at the work of Ibsen and Chekov, Shaw and Brecht, O’Neil, Pirandello, Beckett, Pinter, Genet and Baraka. We will supplement our readings with visual material, as well as considering the theoretical writings of such figures as Chekov, Stanislavski, Brecht, Freud and Artaud.

Prerequisite, English 101.

ENGL 204 The Feature Film
An introduction to film narrative. The major emphasis will be on the formal properties and potentialities of the film medium for telling stories, and the individual styles and innovations of major directors in creating the feature film. Major directors include Renoir, Kurosawa, Welles, Hitchcock, De Sica, Bergman, Fellini, Antonioni and others.

Prerequisite, English 101. (Literary Kind)

Hour Conferences:

PYE SHEPARD
ENGL 205  The Art of Poetry
This course will explore the nature of poetic expression and the sources of those special literary pleasures which distinguish the poetic from the prosaic through a study of types and forms, metaphor, meter and tone of voice, tactics of revision, comparisons of several poems on the same subject and problems of critical evaluation.
Prerequisite, English 101. *Enrollment limited to 25 with preference to Freshmen with Advanced Placement in English.*

ENGL 208  Introduction to American Literature
This course will be not a *survey,* but an *introduction*—to important concerns and problems that have informed American literature from the beginning of the nineteenth century to the present. Juxtaposing representative texts (fiction, poetry, essays, autobiographies) that in a sense speak to each other, we will ask how different writers (white and black, men and women) have understood the meaning of “American experience”—and how they have given literary expression to this experience. Readings will include works by such writers as Ralph Waldo Emerson, Herman Melville, Frederick Douglass, Mary Wilkins Freeman, Mark Twain, Ernest Hemingway, Kate Chopin, Ralph Ellison, William Faulkner, Alice Walker and Thomas Pynchon. A lecture course.
Prerequisite, English 101.

ENGL 214  The Novel (Same as World Literature 220) (Not offered 1985-86.)
(See under World Literature for full description.)

ENGL 216  Introduction to the Novel
A lecture course on the development of the novel as a literary form. Among the novels to be read in 1986 are: Fielding’s *Tom Jones,* Austen’s *Emma,* Dickens’ *Great Expectations,* Joyce’s *A Portrait of the Artist,* Faulkner’s *The Sound and the Fury* and Nabokov’s *Lolita.* The course will be team-taught, with several conference hours during the semester for questions and informal discussion. One paper, midterm and final examinations.
Prerequisite, English 101.

ENGL 219  Literature by Women
This course will consider literary works written by women as occasions where women acknowledge and confront both each other and a literary culture which has traditionally defined feminine identity and excluded female voices. While including a wide range of women, the course will study in greater depth such writers as Mary Shelley, Charlotte Bronté, Emily Dickinson, Elizabeth Barrett Browning, Gwendolyn Brooks, Sylvia Plath and Toni Morrison.
Three short papers and a final examination.
Prerequisite, English 101. (Literary Kind)

ENGL 220  Introduction to Afro-American Writing
This course will investigate the essential themes and tendencies which have characterized Afro-American writing in poetry, fiction and prose nonfiction. Major writers to be discussed will include: Frederick Douglass, W.E.B. DuBois, Langston Hughes, Zora Neale Hurston, Richard Wright, Ralph Ellison and Alice Walker.
Prerequisite, English 101. (Literary Kind)

NOTE: 300 level courses are open to sophomores, juniors and seniors. Except for 301 and 302 they are normally *not* open to freshmen, although in exceptional cases freshmen may enroll in a 300 level course with consent of the department.
ENGL 301  The Middle Ages to the Enlightenment
A survey of the major figures and movements of English literature through the seventeenth century.
Major requirement.  Open to all students who have credit for 101.
Hours
I. BELL, BEREK, PHILLIPS, PYE, L. H. WRIGHT

ENGL 302  The Enlightenment to the Early Twentieth Century
A survey of the major figures and movements of English literature of the eighteenth and nineteenth centuries.
Major requirement.  Open to all students who have credit for 101.
Hours
BUNDTZEN, KNOPP, SWANN, TIFFT

[ENGL 303(S)  Introduction to Old English (Not offered 1985-86.)
An introduction to the language and literature of England prior to the Norman Conquest in 1066. The study of grammar and vocabulary—with an emphasis on illuminating the roots of modern English—will be complemented by selected readings in Old English prose and poetry.
Prerequisite, English 101.
Hour
KNOPP]

ENGL 304  Dante
An intensive study of The Divine Comedy. Selected readings from the Odyssey, Plato and the Aeneid will situate Dante's poem in the context of European civilization's continuing preoccupation with an afterworld. Readings will be done in translation, with some use of the Italian text.
Prerequisite, English 101. (Major Author)
Hour
C. PARK

ENGL 305  Chaucer
A study of Chaucer's works, with special emphasis on The Canterbury Tales and Troilus and Criseyde.
Prerequisite, English 101. (Major Author)
Hour
KNOPP

ENGL 307(S)  Arthurian Literature
A study of the origins of the Arthurian story in Welsh history and folklore and a survey of its development and transformations in the romance literature of England and the Continent, from Chrétien de Troyes to Thomas Malory, circa 1100-1500. We will pay special attention to the ways in which British/English nationalism, Celtic magic, French courtly values (those connected with love and chivalry in particular), and Christian morality combine and recombine to produce ever new meaning in familiar elements of the plot: Arthur's birth and establishment as king, the fellowship and adventures of his followers, the adulterous love triangle, the Quest for the Holy Grail and finally, Arthur's death.
Prerequisite, English 101. (Literary Kind)
Hour
L. H. WRIGHT

[ENGL 311  Studies in Shakespeare (Not offered 1985-86.)]
(Topic for 1986-87 to be announced.)

[ENGL 313(S)  Renaissance Love Stories (Not offered 1985-86.)
The Renaissance is the great age of English love poetry. After briefly examining conventional ways of talking about love, we will see how Sidney, Donne and Herbert radicalized English love language, expanded the sonnet sequence and redefined the lyric genre to include the witty reciprocity we find in Shakespeare's lovers. Readings include Dante's La Vita Nuova, selections from Petrarch's Rime, Sidney's Astrophel and
ENGL 314  Renaissance Drama (Not offered 1985-86.)
Plays by Shakespeare's predecessors, contemporaries and successors, including works by such writers as Thomas Kyd, Christopher Marlowe, Ben Jonson, Cyril Tourneur, John Webster, Thomas Middleton and William Rowley and John Ford. Prerequisite, English 101 or permission of the instructor.

Hour

[ENGL 315(S) Milton and the Bible (Not offered 1985-86.)
Several of Milton's best poems are built squarely on biblical episodes, and can be read as interpretive expansions of them. At the beginning of his great Christian epic, Paradise Lost, he invoked the aid of that same spirit that inspired Moses in his telling of the creation and David in his composing of the psalms. In this course we will study Milton's religious poetry—Paradise Lost most centrally—and its incorporation of biblical legend, language and thought. We will attempt to make ourselves over into the sort of "fit audience" Milton wrote for by familiarizing ourselves with those sections of the Bible on which he drew most heavily: Genesis, Exodus, The Book of Job and selected passages from the Psalms, the prophetic writings, the gospels and Paul's letters. Prerequisite, English 101 or Religion 201 or 204. (Major Author)

Hour

ENGL 317  Elizabeth and the Elizabethans
This inter-disciplinary course will begin by studying England's Queen Elizabeth (1558-1603) in history, art and literature. It will explore the complicated connections between emerging social conventions and changing literary conventions in order to define the ways in which Elizabeth's domination of the Elizabethan era affected conceptions of women and men, public and private life, power and love. Texts will include biographies of Elizabeth and histories of the period; classics of Renaissance literature (such as Astrophel and Stella, As You Like It, Book III of The Faerie Queene); recently rediscovered literature by women writers (like Emilia Lanier and Mary Wroth); primary historical materials (letters, diaries, marriage manuals, etc.); literary and feminist theory. Requirements will include regular contribution to class discussion, group presentations, a short paper and a final examination or final term paper. Prerequisite, English 101 or permission of the instructor.

Hour

ENGL 324  Eighteenth Century Novel (Not offered 1985-86.)
A study of the first masters of English fiction, with particular attention to Henry Fielding (Joseph Andrews and Tom Jones), Samuel Richardson (Clarissa), Lawrence Sterne (Tristram Shandy) and Jane Austen (Pride and Prejudice, Emma). Prerequisite, English 101.

Hour

ENGL 325  The Other Eighteenth Century
The eighteenth century is often officially labeled an age of reason and order. But many of its most vital texts find their artistic voices and emotional energies in images not of rational order and stable values, but rather of personal dislocation and social disintegration. Like writers considered more typically modern, eighteenth century artists often find that "the center cannot hold." Surrounded by lawlessness, madness and irrational evil, they see themselves at the edge of a personal and communal apocalypse which at once threatens their survival and invigorates their art. We will explore the drama of their struggles in such works as Defoe's Journal of the Plague Year, Swift's Tale of a Tub, Pope's Dunciad, Gay's The Beggar's Opera, Fielding's Joseph Andrews,

**ENGL 331(S)  English Romantic Poetry**
A study of the major poetry of Blake, Wordsworth, Coleridge, Keats, Shelley and Byron. Prerequisite, English 101.

**ENGL 333  Nineteenth Century British Fiction: Novel and Romance**
A study of two important tendencies in the development of British fiction in the nineteenth century: the domestic and social realism that shapes the novel and the gothic elements and ideas—the supernatural, fascination with the past, the double, the quest for knowledge—that inform romance. Reading and discussion of such works as Scott, *Old Mortality*; Austen, *Mansfield Park*; Charlotte Brontë, *Villette*; Thackeray, *Vanity Fair*; Dickens, *Bleak House*; George Eliot, *Middlemarch*; and Hardy, *Jude the Obscure*. Prerequisite, English 101.

**ENGL 334  Comedy**
Starting from the assumption that comedy is more than simply humorous literature, this course will explore the nature of comedy as described by theorists from Aristotle to Freud and beyond. We will assess the principal trends in comic theory and explore the complex and varied aesthetic issues which emerge in comedy. To refresh the mind and gather a group of working examples, we will intersperse among these readings several specimens of comic drama, fiction and film. Theoretical writings by Aristotle, Molière, Hobbes, Meredith, Bergson, Freud, Bakhtin and others; plays by such authors as Aristophanes, Shakespeare, Molière, Wilde and Beckett; excerpts from the fiction of Rabelais, Sterne, Dickens, Gogol and others; films by such comedians as Keaton, Chaplin, the Marx Brothers and Richard Pryor. Prerequisite, English 101. (Literary Kind)

**ENGL 336  The Art of Memory (Not offered 1985-86.)**
Memory and imagination are sometimes considered dissimilar powers—one retrieving and recording a "real" past, the other creating a new "fictional" present. Yet many writers have believed, with Joyce, that "imagination is memory." In what ways do writers relate memory and imagination? How are the properties of memory embodied and enacted in a work of art? How is the reader's memory challenged and manipulated in the act of reading? Toward answering such questions we will discuss memory both as a subject and as a method. In addition to our primary texts, we will occasionally turn to early drafts, letters and journals to observe the creative process and explore the ways in which the conspiracy of memory and imagination recovers, distorts and transforms the past. Readings include Shakespeare's *Tempest*, Wordsworth's *Prelude*, Joyce's *Portrait of the Artist*, Eliot's *Four Quartets* and *The Wasteland*, Stein's *Autobiography of Alice B. Toklas*, Nabokov's *Speak, Memory*, Kundera's *The Book of Laughter and Forgetting* and poems by Robert Lowell and Elizabeth Bishop. A team-taught seminar; requirements include two critical essays and several short pieces of autobiographical prose. Prerequisite, English 101. Enrollment limited to 20.

**ENGL 338  Literature of the American Renaissance**
A study of the concentrated moment of national expression, in the two decades before the Civil War, that was celebrated as the "birth" of an American literature and in some
ways still appears that way to us. Emphasis on the works of Emerson, Thoreau, Hawthorne, Melville, Whitman and Dickinson.
Prerequisite, English 101.

ENGL 341 (formerly 358F)  Literary Vocation and Social Identity in America (Same as American Studies 341)
A consideration of literary artists as a distinct subculture in American society, at once “deviant” and “elite,” torn between the values of their calling and the mores of the dominant culture. Particular attention will be paid to the changing social and psychological meanings of literary vocation in America. Readings will be drawn from works of literature, letters, memoirs and biographies, as well as from works of psychology, sociology and intellectual and literary history. Authors will include Irving, Stowe, Howells, Chopin, Hemingway and Wright. In addition, each student will write a substantial term paper applying the methods of the course to a writer of his or her own choosing.
Prerequisite, English 101 or permission of the instructor.

ENGL 342 American Literature and the History of Science (Same as History of Science 342) (Not offered 1985-86.)
The American writer-as-intellectual strives to keep up with science, while the writer-as-artist continually fends it off. Thus, studying literature’s negotiation with science is a useful way of getting at the role of the writer (as intellectual, as artist) in America. This course will take writers on either side of a scientific breakthrough—Charles Brockden Brown and Dreiser on either side of Darwin, Hawthorne and Mailer on either side of the computer revolution, Poe and Pynchon on either side of statistical thermodynamics—to see what difference the scientific breakthrough effects. (Henry Adams, at the end of the nineteenth century and Cynthia Ozick, at the end of the twentieth century, will also be considered.) We will move from broad issues (the nature of history) to details (it may be that in its details a work of fiction best escapes scientific concepts.)
Prerequisite, English 101.

ENGL 344 Imagining American Jews (Not offered 1985-86.)
Jewish life in America has been the subject of some of the finest and most influential works of recent literature. Concentrating on novels, stories and memoirs by Henry Roth, Saul Bellow, Bernard Malamud, Tillie Olsen, Grace Paley, Alfred Kazin, Irving Howe, Philip Roth, Cynthia Ozick and others, this course will study the changing images of the Jew in fiction and autobiography from the 1930’s to the present.
Prerequisite, English 101. [Literary Kind]

ENGL 346 Southern Fiction/Southern Fictions (Not offered 1985-86.)
Beginning with turn-of-the century apologists for the Old South, this course will examine the works of a variety of writers, black and white, male and female, such as William Faulkner, Zora Neale Hurston, Richard Wright, Flannery O’Connor, Carson McCullers, Ernest Gaines and Alice Walker. We will devote special attention to questions of race, class and gender and to how these writers portray social relations in the South. To provide background material, we will also consider nonfictional works by writers such as W.J. Cash, Robert Penn Warren and C. Vann Woodward.
Prerequisite, English 101. [Literary Kind]

ENGL 348 The Roots of American Humor
A vital and continuous tradition of native humor has played a crucial role in shaping America’s literature and national character. Intensive study of Washington Irving and Mark Twain will frame our examination of the seminal nineteenth century period that
saw the emergence of the "Yankee character," crackerbox philosophers, Western yarnspinners, minstrel-show impersonators, burlesque lecturers, comic misspellers and confidence men, along with the learned scientific wit of Dr. Holmes and the philosophic humor of Poe and Melville. We will trace the parallels between these strains of folk and philosophic humor, reading these works as the sites of radical and influential literary experimentation and of important ideological exploration. We will ground our survey in theories of Bergson, Bakhtin and Freud, and in the last weeks of the semester, will trace these nineteenth century forms and themes in some well-known works of twentieth century American humor.

Prerequisite, English 101. (Literary Kind)

GIBIAN

[ENGL 351  Walt Whitman, Emily Dickinson and Their Contemporaries
(Not offered 1985-86.)

In this course we will undertake an intensive study of the works of Walt Whitman and Emily Dickinson, the two great poets of the American nineteenth century. As part of our investigation, we will explore not only the distinctive aesthetic innovations that marked the achievements of these artists, but also the ways in which each—at least considered historically—may have functioned as prototypical gender figures, model male and model female, mythic forefather and mythic foremother, in a sexual/poetic dialectic that has continued through our own era. Thus we will read some representative works by poets (and even prose writers) who were contemporaries of Whitman and Dickinson, as well as some significant works by poets who can be considered their heirs. Throughout the semester, however, our primary focus will be on the art of Whitman and Dickinson themselves. There will be several short papers and—most likely—a take home final.

Prerequisite, English 101.

Hour

GIBIAN

ENGL 353(S)  Modern Poetry


Prerequisite, English 101.

Hour

SOKOLSKY

ENGL 354  Contemporary American Poetry

A study of recent American poetry concentrating on individual volumes by Theodore Roethke, Robert Lowell, Elizabeth Bishop, John Berryman, Adrienne Rich, James Wright, Derek Walcott, Carolyn Forché and others.

Prerequisite, English 101.

Hour

RAAB

[ENGL 355  Baldwin, Baraka, Reed (Not offered 1985-86.)

This course will study the works of James Baldwin, Amiri Baraka and Ishmael Reed, three of the most highly regarded Afro-American writers who have gained prominence since 1950. Though these writers have sharply contrasting styles, each represents a major tendency in Afro-American culture: respectively, the moral, political and comic traditions. We will examine what makes them distinctive both as individual writers and as representative figures.

Prerequisite, English 101. (Major Author)

Hour

D. L. SMITH

ENGL 356(F)  Hughes, Hurston, Wright

This course will examine the works of Langston Hughes, Zora Neale Hurston and Richard Wright, three of the most important Afro-American writers from the first half of this century. In addition to their fiction and poetry, we will read autobiographies and other prose nonfiction by each; and using recent biographies, we will consider the rele-
vance of biographical information to the interpretation of literary texts. English 220 is recommended, though not required.
Prerequisite, English 101. (Major Author)

Hour

ENGL 357 (F,S) American Fiction Since World War I
A study of recent American fiction, including such writers as Faulkner, West, O'Connor, Ellison, Bellow, Malamud, Barthelme, Updike and Pynchon. Students will be expected to have read Hemingway's The Sun Also Rises and Fitzgerald's The Great Gatsby before the course begins.
Enrollment limited to 40 in each section, with preference to juniors and seniors majoring in English.
Prerequisite, English 101.
Hours 357 (F) 357 (S)
First semester: L. Graver
Second semester: Limon

ENGL 358 Experimental American Fiction of the 1960's
The 1960's saw the rise of two new developments in American fiction. There was the experimental work of such "metafictionists" or "surfictionists" as Coover, Pynchon, Barth and Barthelme, all self-conscious heirs of the "modernists." A related phenomenon—at least insofar as it also sought to redefine fiction, reality and their relationship—was the "non fiction novel" or "new journalism," as written by, for example, Capote, Mailer and Wolfe. We shall look at some selections of these experimenters and perhaps others as well. Throughout we will want to ask: to what extent were these generally "post-modern" phenomena or specifically American phenomena? Why did these experiments occur in America? [Is there an American tradition of such experiments?] And why in the 1960's?
Prerequisite, English 101.

ENGL 360 James Joyce (Not offered 1985-86.)
A study of the works of Joyce, beginning with the poems, Dubliners, A Portrait of the Artist as a Young Man and culminating with Ulysses.
Prerequisite, English 101. (Major Author)

Hour

ENGL 364 Film and Literature: Images of War (Not offered 1985-86.)
An examination of cinematic and literary presentations of the experience of war, with particular attention paid to ethical values and stylistic strategies. Partial reading list: Hrabal's Closely Watched Trains, Homer's Iliad, Crane's The Red Badge of Courage, Keegan's The Face of Battle, Hemingway's A Farewell to Arms, Heller's Catch-22, Herr's Dispatches and Jarrell's Little Friend, Little Friend. Partial film list: Menzel's Closely Watched Trains, Renoir's Grand Illusion, Rosellini's Paisan or Open City, Clement's Forbidden Games, Ichikawa's Fires on the Plain, Eisenstein's Alexander Nevsky, Weir's Gallipoli, Kubrick's Paths of Glory, Malle's Lacombe, Lucien and Olivier's Henry V.
Prerequisite, English 101. Enrollment limited to 30. (Literary Kind)

Hour

ENGL 365 Studies in Dramatic Literature (Same as Theatre 313)
A study of Beckett's writings for the stage, radio, television and film: Waiting for Godot, Endgame, All That Fall, Krapp's Last Tape, Happy Days, Embers, Play, Film and pieces from the 1970's. The plays will be considered both as literary and theatrical texts and several of the short works will be prepared for production.
Prerequisite, English 101 or Theater 101. (Major Author) Enrollment limited to 18.

Hour

139
ENGL 366(F) Modern British Fiction
This course will study several novels from the first three decades of the twentieth century. We will focus principally on new approaches to questions of knowledge, history, art, politics, sexuality and the self, and on the emergence of innovative modes of novelistic discourse which have been loosely called “modernist.” Readings will include Conrad’s *Lord Jim*, Forster’s *A Passage to India*, Lawrence’s *Women in Love*, Woolf’s *To the Lighthouse*, James’s *The Ambassadors*, Ford’s *The Good Soldier* and Joyce’s *Ulysses*. Prerequisite, English 101.

ENGL 373(S) Modern Critical Theory
What assumptions govern our modes of interpreting texts? What sorts of power dynamics operate in a text and in the critical act? How has post-structuralism reconceived the nature of interpretation? This course will explore the challenges to traditional literary theory posed by such writers as Foucault, Derrida, Lacan and Barthes. We will examine the roots of deconstructive theory in the work of Freud and Nietzsche and will consider feminist and Marxist responses to it. We will consider writings by James, Stevens, Ashbery and others to explore the implications of reading specific texts in light of these theorists’ work.
Prerequisite, English 101 or permission of the instructor. *Enrollment limited* to 25.

ENG 375 Critical Skirmishes: Topics in the History of Literary Theory (Same as Comparative Literature 301)
As literary critics, we tend to imagine ourselves to be coolly disinterested creatures. Yet the history of literary criticism and aesthetics has often proved a history of confrontations as fierce and as nuanced, as the dramas played out in the literature it analyzes. This course will look at the history of literary theory in terms of a series of significant oppositions: Plato and Aristotle on the function of literary representation, Aristotle and Longinus on the nature of literary response, the quiet warfare carried out in the Renaissance poetic “Defenses,” Pope’s scurrilous dramatizing of his scurrilous detractors, Wasserman vs. the New Critics on literary history, Derrida vs. Foucault on madness and knowledge, Lacan vs. American psychoanalytic critics on the self and language. The aim of the course will be two-fold: to survey some of the most important and lively issues in literary history and to explore the connection between interpretation and assertions of power.
Prerequisite, English 101. (Criticism)

ENGL 377 The Female Body of Imagination
A study of contemporary American women poets and feminist poetics. At the end of poet Adrienne Rich’s *Of Woman Born*, she writes, “The repossession by women of our bodies will bring far more essential change to human society than the seizing of the means of production by workers. The female body has been both deconstructive and machine, virgin wilderness to be exploited and assembly-line turning out life. We need to imagine a world in which every woman is the presiding genius of her own body.”

A major theme in recent lyric poetry by American women is the translation of social and psychological constraints on women into physical, bodily metaphors, so that readers come to understand what it may feel like to inhabit a woman’s body and how this affects her imaginative freedom and control of the world around her. Likewise, the worlds and *personae* created in these poems often emerge from what Rich describes as the task of repossession (implying an original loss or usurpation by others) of the female body. We will explore this connection between the female body and the female imagination in the works of several contemporary poets and read recent feminist literary criticism to determine whether or not the world and “presiding genius” in women’s poetry
represent a different lyric impulse and constitute a literary tradition separate from that of male poets. Readings will include poems by such authors as Adrienne Rich, Anne Sexton, Nikki Giovanni, Judith Grahn, May Swenson, Louise Glück, Sylvia Plath, Ntozake Shange and Diane Wakoski and criticism by such authors as Sandra Gilbert, Susan Gubar, Elizabeth Hardwick, Helen Vendler, Virginia Woolf, Tillie Olsen, Albert Gelpi and Adrienne Rich.

Prerequisite, English 101 and any other poetry course, such as 205, 301, 302, 313, 315, 331, 351, 353, 354 or permission of the instructor. (Criticism) Enrollment limited to 20.

ENGL 378 Text, Context, Social Text: Marxism and Cultural Interpretation (Same as Comparative Literature 302)

An introduction to some major Marxist approaches to cultural analysis. We will begin with a review of key Marxist concepts, which inform cultural analysis, such as base and superstructure, alienation, fetishism, reification, mediation, determination, ideology, hegemony and praxis. Various Marxist traditions will be examined, including several forms of historical materialism, ideological critique and Marxist semiotics. To test these theories in practice, we will apply them to some conventional literary texts (novels and plays by such writers as G.B. Shaw, Joseph Conrad, Sam Shepard and V.S. Naipaul) as well as to cultural movements and cultural artifacts (commodities and advertisements). Readings will include selections from Marx, and theoretical works of George Lukács, Bertolt Brecht, Walter Benjamin, Roland Barthes and Raymond Williams.

Prerequisite, English 101. (Criticism)

Hour

Bundtzen

ENGL 497, 498 Independent Study

Required of all senior majors pursuing departmental honors.

D. L. Smith

ENGL W30 Honors Colloquium: Specialization Route

Required during Winter Study of all seniors admitted to candidacy for honors via the specialization route.

ENGL W31 Senior Thesis

Required during Winter Study of all seniors admitted to candidacy for honors via the thesis route.

SEMINARS FOR SENIOR MAJORS

ENGL 402 Formal and Psychoanalytic Approaches to Ingmar Bergman

One study of Ingmar Bergman begins with a quote from W.H. Auden's New Year Letter: "Definition of a classical artist: One whose dementia is simply the occasion of release for his talent. Definition of a romantic artist: One whose dementia becomes his subject matter." Both definitions apply to Bergman, who has made films that fulfill "classic" prescriptions for theatrical comedy, mimetic realism, and modernist anti-narrative, and also films he confesses to be "horribly personal" versions of his fantasies, nightmares and obsessions. To study his career as a director, we will therefore look to both formal and psychoanalytic criticism for interpretive tools. In addition to the films, studied chronologically, there will be readings from Freud, critical books and essays on Bergman and his many interviews. Critical questions posed: What elements of Bergman's films invite a psychoanalytic reading of their meaning? When does a psychoanalytic reading conflict with or support a formal interpretation of a film? Are some of his films...
ENGL 404  Freud and Literature

This course will analyze Freud's work from a literary perspective and will explore the implications of his theories and techniques of interpretation for literature and criticism. We will concentrate less on a psychoanalytic reading of character and author than on literary issues raised by Freud's theories: issues such as the relation of dreamwork to narrative strategies; ways in which narcissism, the Oedipal complex and the death instinct lead us to reconceive notions of the self; and the effects of such Freudian mechanisms as the uncanny and the repetition compulsion on narrative structures. We will also consider feminist responses to such issues as Oedipal theory and the castration complex. Readings will include excerpts from The Interpretation of Dreams and Introductory Lectures on Psychoanalysis; Beyond the Pleasure Principle; several case histories; and selected essays. These readings will be interspersed with works by Kafka, James, Coleridge, Wordsworth, Tennyson, Dickinson, Ashbery, George Eliot and others.

ENGL 406  Looking for Shakespeare

Matthew Arnold addressed a sonnet to Shakespeare and complained, "We ask and ask—Thou smilest and art still,/Out-topping knowledge." How have men and women asked for knowledge of Shakespeare? Among the topics to be studied: 1) How do we know what Shakespeare wrote? What should we do when (as with King Lear) two significantly different texts of the play survive? 2) Is Shakespeare—and his interpretation—bound by Elizabethan genres and conventions? What can we learn by comparing Hamlet with revenge plays such as Kyd's The Spanish Tragedy? 3) What kinds of criticism do stage performances make? We will see and compare several performances of Henry V and also assess whether certain critical interpretations can ever be acted. 4) How is a Shakespeare play like a poem? What do we learn by asking about diction, imagery, symbolism, theme? Why did such criticism flourish from about 1920 until 1970 and why did it decline? 5) Do Shakespeare's characters have characters? What happens when we study their psychology? 6) How do the insights of feminist criticism change our understanding of Shakespeare?

For about half of the semester, we will meet as a group with common assignments. Then each student will work independently, with frequent conferences with the instructor, on a single play. There will be great opportunity to tailor research to individual interests. Finally, students will report to the seminar on their new knowledge and how they gained it, and write a 15-20 page paper.

ENGL 408  Paradise Lost and the Milton Controversy

Regarded by many as the greatest long poem in English and by others as a dead end or pernicious influence, Paradise Lost is an especially problematical work. Since its appearance in 1667 it has provoked so much reverence and resistance that the history of Milton criticism is nearly as fascinating as the poem itself. Did Milton's rhetoric put an end to Elizabethan and Jacobean wit? Is Milton best seen as an epic successor to Homer, Virgil and Spenser or as the rebellious precursor of Blake and the Romantics? Is Milton a celebrator of Christian liberty and wedded love or the Patriarchy's most notorious repressor of women? For about half of the semester, we will meet as a group to discuss the poem as the subject of critical controversy. Readings will include criticism by Sam-
uel Johnson, T.S. Eliot, C.S. Lewis, Stanley Fish, Sandra Gilbert and Susan Gubar and others. Then each student, pursuing individual interests and conferring frequently with the instructor, will devise a specific research project. At the end of the semester, students will report on the project to the seminar and submit a paper of 15-20 pages.

**Major requirement.** Open only to seniors majoring in English. (Criticism) **Enrollment limited.**

**ENGL 410  The Literature of Travel**

What are the different forms and kinds of “travel literature” and what are the relationships among them? The seminar will explore and compare narratives of geographical, spiritual and psychological travel chosen from a wide range of periods and including works such as the *Odyssey*, the *Book of Jonah*, *The Acts of the Apostles*, the *Apocalypse*, *The Divine Comedy*, the *House of Fame*, *Utopia*, *Gulliver’s Travels*, *A Passage to India* and *To the Lighthouse*.

**Major requirement.** Open only to seniors majoring in English. (Literary Kind) **Enrollment limited.**

**Hour  R. BELL**

**ENGL 412  Tragedy and Beyond**

A study of six tragedies, or near-tragedies, each of which treats, in its own way, the presence of evil in the world—the presence of suffering, injustice and cruelty: The *Book of Job*, Sophocles’ *Oedipus* cycle, Shakespeare’s *King Lear*, Melville’s *Moby-Dick*, Kafka’s *The Trial* and Beckett’s *Waiting for Godot*. We will be less concerned with defining tragedy than with exploring first, the extent to which these works, which span some twenty-five centuries, share a common vision of human existence and second, the distinctive ways in which each work invites the reader or spectator to respond to the particular vision it presents. Students will write a preliminary 7-8 page paper and a final 12-15 page paper.

**Major requirement.** Open only to seniors majoring in English. (Literary Kind) **Enrollment limited.**

**Hour  KNOPP**

**WRITING COURSES**

**ENGL 103(F,S)  Expository Writing**

This is a course in basic problems of expository writing. It is not designed for students interested in writing prose fiction or in simply polishing their style. Its goal is to teach students how to write a clear, well argued, intelligible paper. Readings will be taken from a writing handbook and a collection of essays. A substantial amount of writing will be assigned. Regular class meetings will be supplemented by individual conferences. Students whose native language is not English will be enrolled in the Non-English section.

No prerequisite.  **Enrollment limited to 12 in each section.**  
**Hours  103(F) (The special section for those whose native language is not English is 2U.)**

First semester: S. WRIGHT  
Second semester: PYE

**ENGL 281(S)  The Writing of Poetry**

A workshop in the writing of poetry. Weekly assignments and regular conferences with the instructor will be scheduled. Students will discuss each other’s poems in the class meetings.

No prerequisite.  **Enrollment limited to 15.**

**Hour  RAAB**
ENGL 283(F,S) Introductory Workshop in Fiction
A course in basic problems that arise in the composition of short fiction. Class sessions will be devoted to discussion of both published and student work. There will be a series of assignments dealing with specific problems. Students will receive written critiques from other students as well as from the instructor. There will be individual meetings with the instructor in addition to the class sessions.
No prerequisite. Enrollment limited to 15.
Hours 283(F)
283(S)

ENGL 286 Intermediate Expository Writing
A course for those who would like to increase their ability to write readable, persuasive and attractive expository prose. Class discussion will focus on published essays selected by students for their written effectiveness, as well as on specific problems and possibilities presented by students’ own writing. Weekly writing assignment, a minimum of 1,000 words.
No prerequisite. Enrollment limited to 15 with preference given to sophomores.
Hour

ENGL 382(F) Advanced Workshop in Poetry
This course will combine individual conferences with workshop sessions at which students will discuss each other’s poetry. Considerable emphasis will be placed upon the problems of revision.
Prerequisite, English 281 or permission of the instructor. Candidates for admission should confer with the instructor prior to registration and submit samples of their writing. Enrollment limited.
Hour

ENGL 384(F) Advanced Workshop in Fiction
Class sessions will be devoted to discussion both of published writings and student work. Students will be evaluated on their progress both as writers and readers of fiction. In addition to their own fiction, students will prepare written critiques of the writing of other students. Considerable emphasis will be placed on the problems of revision. Workshop sessions, supplemented by individual conferences. Candidates should present samples of their writing to the instructor a week before the start of the semester.
Prerequisite, English 283 or permission of the instructor. Enrollment limited.
Hour

ENGL 397, 398 Independent Study
Unusually qualified and committed students who are working on a major writing or research project may confer with the English department about possible arrangements for independent study.

ENVIRONMENTAL STUDIES (Div. I, II & III)
Center for Environmental Studies Staff for 1985-86

Director, Professor WILLIAM R. MOOMAW
Assistant Director, NAN JENKS-JAY

Professors: JORLING, MOOMAW. Lecturer in Art and Planning Associate: SATTERTHWAITE.

MEMBERS OF THE CENTER
HENRY W. ART, Professor of Biology, Hopkins Forest Director
COORDINATE PROGRAM

The coordinate program in environmental studies allows students to concentrate some of their elective courses in an integrated, interdisciplinary study of the environment. The purpose of the program is to provide a basic understanding of the complex nature of the environmental problems and opportunities facing society. To accomplish this goal, students take courses in the natural sciences, the social sciences and humanities in order to obtain the knowledge and perspectives that these diverse disciplines contribute to our understanding. Courses offered by the Center are interdisciplinary in nature and hence do not carry divisional distribution credit (unless cross listed with another department).

The coordinate program is administered through the Center for Environmental Studies, located in Kellogg House. In addition to the academic program, Kellogg is the home of the Matt Cole Memorial Library with its collection of environmental documents, periodicals and books. It also has study and meeting facilities available to students. The Center supervises and administers the 2000 acre Hopkins Memorial Forest, Rosenburg Field Center, the Hopkins Forest Farm Museum and the Environmental Analysis Laboratory.

Members of the Center teach courses, supervise student research or independent study, offer seminars and are available for student consultation and career counselling.

Many students have found their environmental studies program to be greatly enriched by direct involvement in some environmental project or issue. The Center for Environmental Studies and many departments offer opportunities for independent research or honors thesis on environmental topics. Students may also participate in field projects and intern positions during Winter Study or the summer. Those students who plan to complete the program are strongly encouraged, but not required, to gain some first hand experience by taking advantage of these available opportunities.

Each year the Center for Environmental Studies awards the Tom Hardie Memorial prize for outstanding student work in Environmental Studies. Students submit work to the Director for consideration before the end of the spring semester each year.

Students may enroll in the coordinate program in environmental studies at the end of their sophomore year by registering with the environmental studies program in Kellogg House. However, freshmen interested in the program are urged to seek the advice of the CES staff in planning their freshmen and sophomore course selections. In addition to satisfying requirements of any major department, students may complete the Environmental Studies Coordinate Program by taking seven courses from among the following:

Introductory courses—required of all CES students
101 Introduction to Environmental Studies
213/Biology 213 Environmental Biology
Environmental Studies

Core courses—required of all CES students
302 Environmental Planning
403 The Environment, the Individual and Society

Distribution courses
All CES students are required to take three courses; one chosen from each of the following groupings. This distribution requirement will normally be completed by the spring of a student’s junior year.

Environmental Science
American Maritime Studies 211 Oceanography
American Maritime Studies 221 Marine Ecology
Biology 310 Communities and Ecosystems
Biology/Environmental Studies 312 The Ecology of Biological Resources
Chemistry 200 The Environment and the Physical Sciences
Chemistry/Environmental Studies 308 Sampling the Chemical Environment
Geology/Environmental Studies 111 Environmental Geology and the Earth’s Surface
Geology/Environmental Studies 204 Mineral Resources
Geology/Environmental Studies 205 Coastal Oceanography
Geology/Environmental Studies 206 Geological Sources of Energy

Human Environment
American Maritime Studies 231 Literature of the Sea
Anthropology 209 Human Ecology
Art 201 American Landscapes
Art/Environmental Studies 202 North American Cities
Art/Environmental Studies 304 American Transport History
Economics/Environmental Studies 207 New England Research Seminar (Deleted 1985-86.)
Economics/Environmental Studies 210 U.S. and World Agriculture
English 207 Literature of the American Renaissance (Deleted 1985-86.)
Environmental Studies/History of Science 209 American Agricultural History
History 336 The American West Since 1848
History 355 (formerly 345) Man and Nature in America
History of Science 305 Technology and Culture
Philosophy 227 Philosophy and Technology

Environmental Policy
American Maritime Studies 301 Marine Policy
Art/Environmental Studies 303 Countryside Planning
Economics 217 Environmental and Resource Economics
Environmental Studies 341S Land Use Controls
Environmental Studies 390 International Environmental Issues Seminar
Philosophy/Political Economy 310 Moral Dimensions of Public Policy
Political Science/Environmental Studies 317 Environmental Law
Religion/Environmental Studies 224 Nuclear War: History, Ethics and the Environment

In addition to courses fulfilling the requirements of the CES Program, the following interdisciplinary courses are offered.

Environmental Studies Electives
203 Energy: Science and Society
397, 398 Independent Study of Environmental Problems
Winter Study courses and Independent Study
Environmental Studies

HONORS IN ENVIRONMENTAL STUDIES

Honors in Environmental Studies provides students with an opportunity to undertake an independent research project under the supervision of a member or members of the Center and to report on the nature of the work in an oral presentation and a thesis.

Students who are enrolled in the Coordinate Program in Environmental Studies and who are candidates for Honors take the following in addition to the program listed above:

Environmental Studies 493-W31-494 Senior Research and Thesis

The opportunity to undertake research and thesis work in the junior year is available to specially qualified students. Students desiring to pursue Honors in Environmental Studies should submit a written statement describing the project and its objective with the Center prior to the end of the student’s junior year. At this time a member of the Center will be designated as supervisor.

In mid-October of their senior year, students will prepare a brief report of the status of the project for presentation to the CES Committee. At this point the student’s work will be reviewed for its quality and original character and advised whether the work is of sufficient stature to continue. During the last four weeks of the semester, the CES Committee will hold group meetings organized around the discussion and criticism of individual theses. A recommendation for honors will be made on the basis of the thoroughness, independence and originality of the student’s work.

In order to be recommended for Honors, a student is normally expected to have completed the equivalent of two semesters and a WSP of independent research culminating in a thesis which is judged to be acceptable by the Center. The principle considerations in admitting a student to a program of independent research will be mastery of fundamental materials and skills, ability to pursue independent study successfully and demonstrated student interest and motivation.

The Center for Environmental Studies maintains both formal and informal links with several Environmental Studies programs at other institutions. The program in American Maritime Studies at Mystic Seaport, Connecticut, is a semester long course of study which fulfills all three of the Williams Program elective requirements. The newly established Williams-Oxford Program offers students the opportunity to study abroad and to explore environmental topics from a foreign perspective. Both of these programs provide full credit towards the Williams degree. In addition to these Williams based programs, students may participate in a wide range of environmental programs at other institutions for a semester, a year or during Winter Study. To determine whether such programs satisfy the requirements of the Williams Program, students should consult with the director of the Center for Environmental Studies in the semester prior to leaving the campus.

ENVI 101(S) Introduction to Environmental Studies

A survey of basic environmental topics, including population, pollution, resource depletion, energy, land use, food production, ecology, economics, ethics and public policy. Although the course will focus on the contemporary dimensions of these topics and associated issues, attention will be given to historical and cultural contexts. The course will utilize a basic text and supplemental readings. There will be essays, a one hour exam and a final examination.

Lectures plus discussion section, four hours per week. This course provides a useful general survey course for all students. It is required for students wishing to complete the Environmental Studies Program.

Hour Conferences: MOOMAW

ENVI 111 Environmental Geology and the Earth’s Surface (Same as Geology 111)

(See under Geology for full description.)

[ENVI 202 North American Cities (Same as Art 202) (Not offered 1985-86.)]

(See under Art for full description.)
ENVI 203  Energy: Science and Society
This course is a multidisciplinary offering on the topic of energy. Instructors from different departments will provide a comprehensive introduction to the technical and social issues surrounding energy use. Topics will include:
- Fundamental properties of energy, the laws of thermodynamics, electricity and nuclear power.
- Photosynthesis, renewable biofuels, fossil fuels, combustion and pollution.
- Cost of energy, resources as a function of cost, economics of oil shortages and the oil glut, the role of the marketplace in determining the availability of energy.
- Historical perspectives on energy use and resource exploitation.
- Public policy, international relations, individual and government responsibilities, influencing energy consumption and energy supply, policy options and looking to the future.
This course is intended to produce a basic level of literacy in energy matters and to serve as an introduction to more advanced courses offered in several departments.
Lectures, three hours a week.
No prerequisite.

BOLTON, FOX, JORLING, Moomaw

ENVI 204  Mineral Resources (Same as Geology 204)
(See under Geology for full description.)

ENVI 205  Coastal Oceanography (Same as Geology 205) (Not offered 1985-86.)
(See under Geology for full description.)

ENVI 206  Geological Sources of Energy (Same as Geology 206) (Not offered 1985-86.)
(See under Geology for full description.)

ENVI 209  American Agricultural History (Same as History of Science 209)
An exploration of the historical aspects of the production of food and fibre, concentrating on the American experience, but preceded by anthropological evidence from the New and Old Worlds. The adoption of domesticated plants and animals to America; the development of regional agricultural styles and economies, including slavery; the diffusion of technology, as in harvesting equipment; the nurturing of rural self-consciousness, as in the Grange movement; changes in the scale of agricultural production and processing; the role of the land grant college system and extension service, as in the Morrill Act.

D. Beaver, Satterthwaite

ENVI 210  U.S. and World Agriculture (Same as Economics 210) (Not offered 1985-86.)
This course will examine both historical and current issues in agriculture. Topics covered will include: 1) the mechanization of U.S. farms and its impact on farm owners and workers; 2) land tenure and farm ownership patterns over time and across regions including changes in size of farms and corporate farming; 3) farm credit, farm foreclosures and government intervention; 4) land reform in developing countries; and 5) U.S. agricultural policy including price supports, water pricing, food aid, grain exports and grain embargoes.

Alston

ENVI 213  Environmental Biology (Same as Biology 213)
A study of factors which determine the distribution and abundance of organisms in natural systems. Topics will include global patterns; population dynamics (growth, com-
petition, predation and co-evolution); community interactions (succession, food chains and diversity); and ecosystem function (biogeochemical cycles and energy flow).

Lectures and laboratory, six hours a week.

Prerequisites, Biology 101, 102 or 201 or Environmental Studies 101 or consent of the department. Required course for students wishing to complete the Environmental Studies Program.

ENVI 220 Environmental Engineering (Same as Science and Technology Studies 220)

Engineering solutions to environmental problems are often proposed and in many cases are mandated by law. Using a case study approach this course will examine the development of pollution control technologies such as scrubbers on coal burning power plants to reduce air pollution, the design of other technologies for cleaner combustion of fuels, the use of chemical and biological technologies for disposing of toxic chemicals and other waste and the development of new innovations that produce less pollution while performing their technological functions. The focus will be on the engineering challenges faced in designing solutions to particular problems. This course should be of interest to students concerned about environmental policy issues and to those whose interest is primarily technical.

Prerequisites, completion of two semesters of 100 level courses in biology, chemistry, geology or physics.

ENVI 224(F) Nuclear War: History, Ethics and the Environment (Same as Religion 224)

A study of the implications of nuclear war in its environmental, ethical and historical settings. Attention will be paid to the effects of nuclear war on the social and physical environment, to the problem of weapon inventory, development, proliferation and control, to the history of American involvement in nuclear technology and weapon development. The course will deal with Judeo-Christian concepts of war, perspectives from other religious traditions, the ethics of coercion and control, and the problem of despair in the nuclear age. Visiting lecturers will include Michael Smith of the History Department and MacAlister Brown of the Political Science Department.

ENVI 302 Environmental Planning

This course will explore the theory and practice of environmental planning, the process by which we try to enhance the quality of human interactions with the physical environment. Three basic themes will be developed:

1. The physical environment both provides resources for and imposes constraints upon economic activity;

2. Environmental, economic and social consequences of human activity must be studied and evaluated in an integral fashion;

3. Quantitative computer models are useful tools in planning.

Theoretical approaches to planning from various disciplines will be utilized as a framework for studying a variety of cases. Examples will be selected from environmental impact and cost-benefit analysis of energy, transportation and industrial projects. Computer model simulations will be used to evaluate and predict the effect of development on employment, pollution, traffic, noise and other social and environmental factors. Emphasis will be on real world planning and assessment from a variety of locales including the opportunity for direct observation of nearby sites.

Prerequisites, Environmental Studies 101 and Biology 213 (formerly 201) and completion of at least two of the distribution requirements for the coordinate program. The course is open to sophomores who have completed the prerequisites. Students need no prior experience with computers and will not need to learn programming. Lectures and discussion, three hours each week; computer labs of up to three hours in a few
Environmental Studies

weeks, but averaging less; two or three afternoon or all day field trips. Required course for students wishing to complete the Environmental Studies Program.

Hour

ENVI 303 Countryside Planning (Same as Art 303)
A research seminar directed at future alternatives for and the effects of change upon such countryside elements as the small town, tourism, the farm and ranch, woodland and wildland—in a context of private and public ownership, modernization and technological change, scale, density, sentiment and the concepts of amenity and environmental quality. Comparison between American, Canadian and British practice. The ideas developed will be tested against specific case studies.
Open to sophomores. No prerequisite.
Requirements, several short papers and a case study or plan.

Hour

ENVI 304 American Transport History (Same as Art 304)
(See under Art for full description.)

Satterthwaite

[ENVI 308 Sampling the Chemical Environment (Same as Chemistry 308) (Not offered 1985-86.)]
(See under Chemistry for full description.)

[ENVI 312 The Ecology of Biological Resources (Same as Biology 312) (Not offered 1985-86.)]
(See under Biology for full description.)

Satterthwaite

ART

ENVI 317(S) Environmental Law (Same as Political Science 317)
(See under Political Science for full description.)

ART

[326 Environmental Design (Same as Art 326) (Not offered 1985-86.)]
(See under Art for full description.)

ART

[ENVI 341(S) Land Use Controls (Not offered 1985-86.)]
A survey of the principles and institutions which have been, and are being established to plan and to regulate the use of land. The authority and the relationships of local, regional, state and federal governments and their respective agencies will be analyzed. Planning Boards, Zoning Boards and Planning Commissions will be reviewed from a historical, as well as contemporary perspective. The evolution of zoning into comprehensive land use and development strategies will be explored both substantively and procedurally. Social causes and effects of zoning and other controls will be studied. Special attention will be directed at the myriad of land use requirements in transportation, environmental, urban, agricultural and other federal programs and how these requirements affect the traditional powers and functions of state and local government. Concepts of ownership and 'rights' to the use of land will be examined. Case studies will be employed.
No prerequisite.

Hour

Satterthwaite

ENVI 390 International Environmental Issues Seminar
This seminar will examine the global character of issues related to natural resource exploitation, food supply, the air and ocean commons, land use and abuse patterns, species and habitat destruction, long-distance transport and fate of chemicals and pollutants, energy use and production and third world development. The seminar will focus on the identification and analysis of international environmental problems, the
Environmental Studies

causes of different perceptions of these problems, and the power and limits of existing
international public and private institutions to provide solutions to them.
Evaluation will be based on class participation and a major paper. Enrollment is
limited to 15 juniors and seniors.
Prerequisites, since the seminar will assume a familiarity with the basic elements of
environmental issues such as human populations dynamics, natural resources and the
impact of human activities on the environment, students should check with the in­
structor if they feel their background may be inadequate.

ENVI 397, 398 Independent Study of Environmental Problems
Individuals or groups of students may undertake a study of a particular environmental
problem. The project may involve either pure or applied research, policy analysis,
laboratory or field studies or may be a creative writing or photography project dealing
with the environment. A variety of nearby sites are available for the study of natural
systems. Ongoing projects in the college owned Hopkins Forest include ecological stud­
ies, animal behavior and acid rain effects on soils, plants and animals. Students may
also choose to work on local, national or international policy or planning issues and
opportunities to work with town and regional planning officials are available. Projects
are unrestricted as to disciplinary focus. Students should consult with faculty well be­
fore the start of the semester in which they plan to carry out their project.
Prerequisite, approval by the Center.

ENVI 403 The Environment, the Individual and Society
It is generally recognized that our contemporary society is the product of cultural
evolution over historical time. To what extent have we and our social structure been
shaped by natural evolutionary and ecological forces? What role do those forces play in
shaping our options for the future? This course will explore through readings and class
discussion the relationships among the individual, society and the natural world. Ques­
tions about past, present and possible future value systems as they influence individual
and social interactions with the natural world will be raised. Students will be asked to
become explicitly aware of their own values and will have an opportunity to justify
them in a major syntheses paper. Required course for students wishing to complete the
Environmental Studies Program.
Prerequisite, Environmental Studies 302.

ENVI 493-W31-494 Senior Research and Thesis

Related Elective courses:
American Studies/History 319 Technology and American Culture: 1893 to the Present
Art 419 Architectural Design II
Biology 217 Primate Biology and Behavior
Biology 220 Field Botany and Plant Taxonomy
Biology 403 The Biosphere and its Ecosystems (Deleted 1985-86.)
Biology 407 (formerly 331) Evolution
Economics 216 Urban Economics
Economics 366 Natural Resource and Environmental Economics
Geology/Environmental Studies 204 Mineral Resources
Geology 207 Geomorphology
History of Science/Computer Science 131 Computers and Society
Religion 236 The Japanese Religious Aesthetic
Religion 302 Religion and Society
Geology and Mineralogy

GEOLOGY AND MINERALOGY (Div. III)
Departmental Staff for 1985-86

Chair, Professor WILLIAM T. FOX

Professors: FOX, WOBUS. Associate Professor: M. JOHNSON. Assistant Professors: DETHIER, KARABINOS. Part-time Instructor: DESIMONE.

MAJOR PROGRAM
The Geology major is designed to provide an understanding of the formation and evolution of the earth and its inhabitants. Forces within the earth are responsible for the development of mountain ranges and ocean basins. Wind, waves, rivers and glaciers have shaped the surface of the earth providing the landscapes we see today. Fossils encased in sedimentary rocks supply evidence for the evolution of life and record the history of the earth.

The Geology major sequence includes one required introductory course, five required advanced courses and three elective courses.

Sequence Courses
102 Mountain Belts and Ocean Basins
201 Mineralogy and Geochemistry
207 Geomorphology
301 Sedimentation
306 Structural Geology
402 Stratigraphy

Elective courses may be clustered to provide concentrations in selected fields of geology. Suggested groupings are listed below as guidelines for course selections, but other groupings are possible according to the interests of the students. Departmental advisers are given for the different fields of Geology.

I Environmental Geology. For students interested in surface processes and the application of geology to environmental problems such as land use planning, resource planning, environmental impact analysis and environmental law.
111 Environmental Geology and the Earth's Surface
200 Weather and Climate
204 Mineral Resources
205 Coastal Oceanography
206 Geological Sources of Energy
208 Glacial Geology (Deleted 1985-86.)
(Students interested in Environmental Geology should consult with Mr. Dethier.)

II Oceanography, Stratigraphy and Sedimentation. For students interested in "Soft Rock Geology", the study of modern and ancient sedimentary environments, the marine organisms that inhabited them and the origin of oil, coal and natural gas.
101 Earth History and Evolution of Life
205 Coastal Oceanography
206 Geological Sources of Energy
211 Principles of Paleontology
354 Computers in Geology
401S Tectonics of the Appalachians
(Students interested in Oceanography, Stratigraphy and Sedimentation should consult with Mr. Fox or Mr. M. Johnson.)

III Petrology and Structural Geology. For students interested in "Hard Rock Geology", the processes going on within the earth, the origin and deformation of rocks and minerals and mineral exploration.
202 Igneous and Metamorphic Petrology
203 (formerly 307) Global Tectonics and Geophysics
Geology and Mineralogy

204 Mineral Resources
354 Computers in Geology
401 Tectonics of the Appalachians

(Students interested in Petrology and Structural Geology should consult with Mr. Wobus or Mr. Karabinos.)

With the consent of the department, certain courses at the 200 level or higher in Biology, Chemistry, Mathematics or Physics may be substituted for elective courses in the major. Credit may be granted in the Geology major for American Maritime Studies 211 (Oceanography) or 221 (Marine Ecology) taken at Mystic Seaport.

It is strongly recommended that students considering graduate work in Geology or Oceanography take courses in the allied sciences in addition to the requirements of the Geology major. The selection of outside courses will depend on the field of Geology in which they intend to specialize. Most graduate schools require Chemistry 101-102 and Mathematics 107, 108. For those going into Environmental Geology, courses in the Environmental Studies Program are recommended. For those considering Oceanography or soft rock geology (Stratigraphy and Sedimentation), Biology 102 and Biology/Environmental Studies 213 are suggested. For students entering hard rock geology (Petrology and Structural Geology), Physics 131 and 132 are recommended.

THE DEGREE WITH HONORS IN GEOLOGY

In order to be recommended for the degree with Honors, a student is expected to have completed at least two semesters and a Winter Study project of independent research culminating in a thesis which demonstrates outstanding achievement of an original and innovative nature. The principal considerations in admitting a student to a program of independent research will be mastery of fundamental material and skills, ability to pursue independent study successfully, and demonstrated student interest and motivation.

NOTE: Geology 354 is recommended for Honors Candidates.

GEOL 101 Earth History and Evolution of Life

Our Earth is a dynamic, ever changing planet with a geologic history stretching back 4.5 billion years. Wandering continents, shifting oceans, the rise and fall of mountains, ice ages, fluctuating sea level and even crashing comets all have their place in this story. The evolution of life on Earth may be read from the rock record as a continuous development of organisms interacting with the environment and one another. Geological concepts of time, cyclicity, catastrophism and uniformitarianism form the basis for an historical approach to the blooming of the biosphere from Precambrian time to the present. Biological topics considered include: origin of life, explosion of multicellular life, vertebrate evolution, invasion of the land by plants and animals, hot-blooded dinosaurs and their extinction and mammalian evolution. Using the model of plate tectonics/continental drift as a point of reference, the unfolding spectrum of life may be viewed as a natural sequence of events closely related to on-going changes in the physical world.

Lectures three hours per week; one two hour laboratory per week (some involving field work), plus one all day field trip to the Helderberg Plateau and Catskill Mountains of New York.

Hour Lab. sections: M. JOHNSON, DESIMONE

GEOL 102 Mountain Belts and Ocean Basins

The evidence for movement of crustal plates and continents over the surface of the earth has dramatically altered the way we view our restless world. Plate tectonics theory describes these motions and is one of the fundamental scientific breakthroughs of this century. This course uses plate tectonics as a central theme to explain the origin of rocks, the distribution and significance of volcanoes and earthquakes, the structure of the continents and ocean basins and the formation of mountain belts.
Geology and Mineralogy

Lectures and discussions, three hours a week; laboratory, two hours a week; one all day field trip to the Connecticut Valley.

**GEOL 111 Environmental Geology and the Earth’s Surface (Same as Environmental Studies 111)**

As population expands, limitations imposed by the physical environment have become increasingly important. Geologic materials such as soil, sediment and bedrock and geologic processes involving earthquakes, volcanic activity and running water often pose constraints on land use. This course examines the nature of geologic materials, the physical processes that continuously change the surface of the earth, and how these processes affect human activity. Topics include volcanic and earthquake hazards, surface-water erosion and flooding, landslides, groundwater, solid waste disposal, resource issues and the importance of geologic information to land-use planning. Laboratories emphasize field and classroom studies of surface processes and discussion of their application to planning.

Lectures and discussions, three hours per week; one two hour laboratory a week; local field trips.

**GEOL 200 Weather and Climate**

A nonmathematical introduction to meteorology and weather forecasting. Some of the topics covered will be air temperature, humidity, wind and precipitation; atmospheric storms including thunderstorms, tornadoes, blizzards and hurricanes; air pollution and acid rain; methods of weather forecasting from cloud patterns to numerical forecasting; and long range climatic changes due to the greenhouse effect and nuclear winter.

Lectures, three hours a week.

No prerequisite.

**GEOL 201 Mineralogy and Geochemistry**

Elementary crystallography; crystal chemistry and element distribution; and the phase relations, compositional variation and mineral associations within major rock-forming mineral systems.

Laboratory work includes the determination of crystal symmetry; mineral separation; the principles and applications of optical emission spectroscopy, x-ray diffraction and x-ray fluorescence analysis; the use of the petrographic microscope; and the identification of important minerals in hand specimen and thin section.

Lectures, three hours a week; laboratory, three hours a week; one all-day field trip.

Prerequisite, one 100 level Geology course or consent of the instructor.

**GEOL 202 Igneous and Metamorphic Petrology (Not offered 1985-86.)**

The origin of metamorphic, plutonic and volcanic rocks in the light of field evidence and experimental work. Rock texture and composition are used to interpret the environment of formation of individual rock types and important assemblages are related, where possible, to new theories of global tectonics.

Laboratory work emphasizes the study of individual rock units and rock suites in hand specimens and by petrographic and x-ray techniques.

Lectures and discussions, three hours a week; laboratory work, three hours a week; plus several field trips.

Prerequisite, Geology 201.

**GEOL 203 (formerly 307) Global Tectonics and Geophysics**

A detailed examination of plate tectonics theory based on geologic and geophysical evidence. Topics include the large scale structure of the earth, the driving forces of plate
motions and the deformation of the crust to produce mountain belts. The course emphasizes recent observations of tectonically active areas of the globe such as the Himalayan Mountains, the circum-Pacific region and the mid-ocean ridges.

Lectures and discussion, three hours a week; one all day field trip.

Prerequisite, Mathematics 107 or consent of the instructor.

GEOL 204 Mineral Resources (Same as Environmental Studies 204)
A geological examination of the principal metallic mineral resources (iron, copper, lead, aluminum, etc.) in terms of their origin, occurrence, extraction and uses. The global distribution and reserves of these materials will be reviewed and compared with current patterns of consumption. Other topics include modern prospecting and mining techniques, environmental problems of the mining industry, mineral economics and mining law. Lectures and discussion, three hours per week; plus field trips (including one all-day trip) to mining operations in western New England and upstate New York.

GEOL 205 Coastal Oceanography (Same as Environmental Studies 205) (Not offered 1985-86.)
Coastal Oceanography is a blend of several sciences that focus on the coast. Marine geology is used to explain the formation of sea cliffs, beaches, barrier islands and reefs. Concepts from physics and astronomy are introduced in the study of waves, tides and ocean currents. Marine biology and ecology provide keys to the behavior and distribution of plants and animals along the shore. The rocky coast, beach, dune and salt marsh environments will be explored on field trips to the New England Coast.

Three lectures per week; two field trips to the New England Coast.

GEOL 206 Geological Sources of Energy (Same as Environmental Studies 206) (Not offered 1985-86.)
An introduction to geological and related physical sources of energy available for man's use. Topics covered will include: the formation, distribution and abundance of fossil fuels (oil, natural gas and coal); the availability and environmental implications of nuclear, solar and hydroelectric power; and the feasibility of using wind, waves, ocean currents and tides for generating energy.

Lectures, three hours a week, one hour discussion section, problem sets and field trips.

GEOL 207 Geomorphology (Not offered 1985-86.)
This course is designed for geology majors and for environmental studies students interested in surficial geologic processes and their importance in shaping the physical environment.

A study of surficial geologic processes and the landforms that they produce. The course emphasizes the nature and rates of constructional and erosional processes and the influence of climatic, tectonic and volcanic forces on landform evolution. Labs concentrate on the measurement of hydrologic and geomorphic processes in Hopkins Forest and other local settings, as well as on the analysis of topographic maps.

Lectures and discussions, three hours a week; laboratory, three hours a week; student projects; weekend field trip to White Mountains.

Prerequisite, any 100 level geology course or consent of the instructor.

GEOL 211(S) Principles of Paleontology (Same as Biology 211)
An introduction to the study of ancient life as represented by fossils. Topics of discussion include: history of man's intellectual discovery of fossils as organic remains; biological and paleontological views of the species concept; current debate over the timing and mechanisms of evolution; functional morphology; analysis of fossil assemblages to
reconstruct the ecology of ancient environments; biogeography and the nature and possible causes of extinction. Laboratories focus on the biology and taxonomy of the major invertebrate phyla.

Lectures, three hours a week; one three hour laboratory a week; field trip to the Lower Devonian Helderburgs of New York State.

Prerequisite, any 100 level geology course or Biology 101, 102 or 213.

GEOL 301(S) Sedimentation

A study of modern sediments and sedimentary rocks. Physical processes and sediments of rivers, beaches, glaciers, deltas and turbidity currents are studied. The textures, structures and composition of modern sediments are used to interpret depositional environments of ancient sedimentary rocks. An all-day field trip is taken to the Atlantic Coast to map a portion of a barrier island and collect sand samples for analysis in the laboratory. Two additional field trips are taken to study Triassic red beds in the Connecticut River Valley and the Devonian Catskill Delta in New York State.

Lectures and discussions, three hours per week; three hour laboratory per week; three all-day field trips.

Prerequisite, any 100 level geology course or consent of the instructor.

GEOL 306(F) Structural Geology

The structure of the earth's crust is constantly changing and the rocks making up the crust must deform to accommodate these changes. Rock deformation occurs over many scales ranging from individual mineral grains to mountain belts. This course deals with the geometric description of structures, stress and strain analysis, deformation mechanisms in rocks and the large scale forces responsible for crustal deformation. The laboratories cover geologic maps, rock structures and fabrics in hand samples and thin sections and basic field techniques.

Lectures and discussion, three hours a week; laboratory, three hours a week.

Prerequisite, Geology 201 or consent of the instructor.

GEOL 354F Computers in Geology

In Geology and Oceanography, computers are used for statistical analysis of field and laboratory data, regional analysis of maps and modeling geological processes. Building on a foundation of algebra, the first third of the course provides an introduction to statistics and matrix algebra for writing PASCAL, FORTRAN and BASIC programs. The remainder of the course includes a wide range of geologic applications of computer programs from Time-series analysis of fossil data to Trend-surface analysis of maps. An electronic digitizer and microcomputers in the Geology building are used for analysis of geologic data and plotting maps during class.

Lectures and discussion, three hours a week; three hour laboratory per week.

Prerequisite, any 100 level course in Geology. Computer Science 133 or 135 helpful, but not required.

GEOL 401(S) Tectonics of the Appalachians

The Appalachian Mountains are one of the best studied orogenic belts in the world and have been the spawning ground for many fundamental concepts and theories in geology. This course introduces the geologic history of the Appalachians and traces the evolution of important theories concerning their development. Evidence from sedimentology, structural geology, igneous and metamorphic petrology, geophysics and paleontology is synthesized to better understand orogenic belts.

Lectures and discussions, three hours a week; three hour laboratory per week; two field trips.

Prerequisites, Geology 201 and 306; Geology 202 and 301 recommended, but not required.
GEOL 402(F) Stratigraphy

Study of the composition, sequence and correlation of layered sedimentary rocks as applied to geologic mapping and the reconstruction of ancient environments. Emphasis will be placed on the various methods of correlation based on physical means and the use of fossils. Plate migrations and the relationship between climate and depositional environments provide a model for the broad scale interpretation of sedimentary sequences. Analyses of major North American stratigraphic sequences will be used to highlight the geologic history of the North American continent.

Lectures, three hours a week; one three hour lab per week; two field trips.

Prerequisite, Geology 301 or consent of the instructor.

GEOL 493-W31-494 Senior Thesis

GEOL 497, 498 Independent Study

GERMAN (Div. I)
Departmental Staff for 1985-86

Chair, Professor EDSON M. CHICK
Acting Chair, Assistant Professor BRUCE KIEFFER

Professor: CHICK † † † † . Assistant Professors: B. KIEFFER, NEWMAN. Visiting Assistant Professor: J. SMITH. Part-time Instructor: E. KIEFFER. Teaching Associate: UTZ.

LANGUAGE STUDY

The Department provides language instruction to enable the student to acquire all four linguistic skills: understanding, speaking, reading and writing. German 101-W-102 covers German grammar in full. German 103 combines a review of grammar with extensive practice in reading and conversation. German 107 and 108 aim to develop facility in speaking, writing and reading and equip the student for advanced courses in German literature and thought. Students who have studied German in secondary school must take the placement test in September and consult department members to determine which course to take.

STUDY ABROAD

The Department strongly encourages students desiring to attain fluency in German to spend a semester or year studying in Germany, Austria or Switzerland, either independently or in one of several established and approved foreign study programs. German 107 or 108 or the equivalent and junior standing are normally prerequisite for acceptance. The one exception is the Wesleyan University Program in Germany, which accepts sophomores with as little as three semesters of language preparation.

LITERATURE IN TRANSLATION

The Department regularly offers courses on German literature in translation (German 203 and 204) for those students who have little or no knowledge of German, but who wish to become acquainted with the major achievements in German literary and intellectual history.

ADVANCED STUDIES

The Department offers a variety of advanced courses for students who wish to investigate German literature and thought in the original. German 201 and 202 are given each year and are recommended as preparation for 300 and 400 level courses. Each 300 level course is offered once every three years, allowing the student to gain comprehensive knowledge of German literature. The seminar (402) has a different topic every year and may be repeated. Students with special interests are encouraged to consult department members.
German

members about the possibility of independent study (497, 498). German 107 or 108 or equivalent preparation is prerequisite to all advanced courses.

MAJOR PROGRAMS
Two routes are open to students desiring to major in German: German Letters, which emphasizes the study of German literature; and German Studies, which allows the student to pursue interdisciplinary studies of German cultural and intellectual history by combining German courses with courses in Philosophy, Art History, Music, History, History of Ideas and other appropriate fields.

The German Letters Route

**Required Courses**
- German 201 German Greats 1740-1848
- German 202 German Greats 1848-1980
- German 402 Seminar—Heinrich von Kleist

**Electives**
Six other German courses above 103. With the permission of the Department the student may substitute appropriate courses from other departments for up to two of these.

The German Studies Route

**Required Courses**
- German 103 Intermediate German
- German 107 or 108 Advanced German A or Advanced German B
- German 201 German Greats 1740-1848 or German 202 German Greats 1848-1980
- One 300 level German course
- German 402 Seminar—Heinrich von Kleist

**Electives**
Five courses selected from German offerings above 107 and offerings in other departments. Courses taken in other departments must be chosen in consultation with members of the German Department and approved by the chairman. Examples of appropriate courses in other departments are:
- Classics 104 Greek Mythology
- History 305 Modern Germany
- Music 211 Music in the Classic Era
- Philosophy 204 History of Philosophy: Locke to Hegel
- Philosophy 258 Nietzsche and William James (Deleted 1985-86.)
- Religion 303 Kierkegaard and Hegel

The Department urges all majors to spend a semester or a year in Germany, Austria or Switzerland.

THE DEGREE WITH HONORS IN GERMAN
At the beginning of the second semester of the senior year, students majoring in German may nominate themselves to candidacy for the degree with honors. By the end of the junior year at the latest, however, they will normally have established, in consultation with the Department, their qualifications for undertaking the project, the pattern of study to be followed, and the standards of performance.

Students may earn honors in German in the following ways:

1. **Within the Department,** (a) by completion of a senior thesis (German 493-494) of honors quality and one course or Winter Study Project clearly related to the thesis topic; or (b) by completion of three integrally related German courses, one of which may be a Winter Study Project and one an Independent Study.
   NOTE: In all cases the candidate must complete a minimum of ten major level courses plus a Winter Study. Also, some of this work may be accomplished on foreign study at a German, Austrian or Swiss university.

2. **The Interdisciplinary Pattern**
   This consists of the regular nine course German major plus two coordinate courses
in other departments or programs and either a Winter Study Project or regular independent study course designed to explore and develop the interdisciplinary topic. Some examples: Nietzsche and modern literature, The Weimar Republic as viewed by playwrights and historians, the wedding of poetry and music in the German Lied, Dürrer and his world.

(Division I distribution credit is granted for all German courses above the elementary level.)

GERM 101-W-102  Elementary German
A comprehensive introduction to German grammar utilizing all four linguistic skills: understanding, speaking, reading and writing. The class meets five hours a week. Credit granted only on successful completion of 102. Students electing this course are required to attend, and pass, the sustaining program in the Winter Study Period.

For students with no previous preparation or with CEEB reading scores below 500.

Hours  
First semester: CHICK, NEWMAN  
Second semester: B. KIEFFER, J. SMITH

GERM 103  Intermediate German
Intensive grammar review. Practice in writing and speaking, vocabulary building. Readings in a variety of texts, mostly from the modern period.

Prerequisite, German 101-102 or equivalent preparation.

Hours  
Newman, Chick

GERM 107  Advanced German A
The prerequisite to all advanced courses in German. Practice in speaking and writing; reading in a variety of texts. Conducted in German.

Prerequisite, German 103 or equivalent preparation.

Hour  
Newman

GERM 108  Advanced German B
This course may be taken in place of, or in addition to, German 107; the two are on the same level of difficulty. Practice in speaking and writing; reading in a variety of texts.

Prerequisite, German 103 or equivalent preparation.

Hour  
B. Kieffer

GERM 201  German Greats 1740-1848
An introductory survey of German writers and thinkers in the period from the reign of Frederick the Great to the Revolution of 1848. Texts by Lessing, Goethe, Kant, Schiller, Novalis, Hölderlin, Kleist, Hegel and Heine. Emphasis on the development of reading fluency in German. Readings mostly in German.

Required of Majors. Prerequisite, German 107 or permission of the instructor.

Hour  
B. Kieffer

GERM 202  German Greats 1848-1980
The course will draw on works of philosophy (Nietzsche, Freud), politics (Bismarck, Hitler, Brandt), literature (Hauptmann, Mann, Kafka, Grass, Bachmann, Morgner) and the arts (Wagner, the Secession, Fassbinder, von Trotta). Readings in German.

Hour  
NEWMAN

GERM 203  German Classics in Translation

Hour  
B. Kieffer
GERM 204 Nietzsche, Bismarck, Fontane, 1870-1889
An introduction to one of the most fascinating and critical periods of German history, the first two decades of the second Reich (1870-89). The course will concentrate on Nietzsche, Bismarck and Fontane, as the period's leading figures in philosophy, politics and literature. Readings and discussion in English.

Hour

B. KIEFFER

GERM 301(S) Age of Goethe
Drawing readings from the works of Goethe, Schiller, Hölderlin and others, the course will concentrate on the classical period (1786-1805) within the epoch. Readings in German.

Hour

J. SMITH

[GERM 302 Literature of the High Middle Ages (Not offered 1985-86.)
Major literary texts of the High Middle Ages in their historical context: the Nibelungenlied, Gottfried's Tristan, Wolfram's Parzival, poems of Walther von der Vogelweide. Readings and discussion in English. Selected readings in Middle High German for qualified students.

Hour

NEWMAN]

[GERM 303 The Twentieth Century (Not offered 1985-86.)
An introduction to the major movements from Naturalism and Expressionism to the present day with texts selected from the works of Hauptmann, Rilke, Thomas Mann, Kafka, Brecht, Dürenmatt, Grass and others. Readings in German.

Hour

CHICK]

GERM 304(F) From Romanticism to Realism
A survey of German literature and thought in the nineteenth century. Emphasis on the transition in literary and philosophical style from Romanticism to Realism. Readings in Novalis, Brentano, Eichendorff, Büchner, Heine, Stifter, Keller and other writers and thinkers. Readings in German.

Hour

CHICK

GERM 305 German Poetry (Not offered 1985-86.)
The history of German poetry from medieval times to the present. Close readings—Lesen and Vorlesen—of texts by Walther von der Vogelweide, Gryphius, Klopstock, Goethe, Schiller, Hölderlin, Heine, Mörke, Rilke, Trakl, Benn, Celan and others. Discussion of ideas about the nature of lyric expression. Readings in German.

Hour

B. KIEFFER]

GERM 306 The Novelle (Not offered 1985-86.)
Investigation into a peculiarly German narrative form based on close reading of stories selected from the works of Goethe, Kleist, E.T.A. Hoffmann, Keller, Storm, Thomas Mann, Musil, Kafka and Grass. Readings in German.

Hour

NEWMAN]

GERM 402 Seminar—Heinrich von Kleist
A detailed investigation of Kleist's theoretical and literary texts, including "Über das Marionetten theater," Michael Kohlhaas, Das Erdbeben in Chili, Penthesilea, Prinz Friedrich von Homburg, contemporary interpretations and performances will be considered. Conducted in German.

Hour

NEWMAN

GERM 493-W31-494 Senior Thesis

GERM 497, 498 Independent Study
GERM 501-502 (101-102) Elementary German
This course consists of the regular undergraduate introductory course with specially
selected readings for the graduate students of art history in the second semester.

Hours
First semester: CHICK, NEWMAN
Second semester: B. KIEFFER, J. SMITH

GERM 509 Readings in Art History and Criticism
Texts will be selected from fundamental works of art history and criticism and from
the specialized literature required in concurrent art seminars in the Graduate Program
in Art History. For graduate students. Others by permission of the department.
Prerequisite, German 501-502 or equivalent preparation (a score of 500 or higher on the
CEEB Reading Examination).

E. KIEFFER

Comparative Literature 301 Critical Skirmishes: Topics in the History of
Literary Theory (Same as English 375)
(See under English for full description.)

Comparative Literature 302 Text, Context, Social Text: Marxian and Cul­
tural Interpretation (Same as English 378)
(See under English for full description.)

[World Literature 220 The Novel (Same as English 214) (Not offered
1985-86.)]
(See under World Literature for full description.)

HISTORY (Div. II)
Departmental Staff for 1985-86

Chair, Professor JOHN M. HYDE§
Chair, Professor CHARLES DEW§§

Professors: BAHLMAN, BOSTERT; DALZELL, DEW, FROST; HYDE+++; OAKLEY, WAITE. Adjunct
Professor: LABAREE. Associate Professors: SPEAR, TRACY, WOOD++. Assistant Professors:
DARROW, HERSHATTER*, KEATING, KOHUT, M. L. SMITH*, W. WAGNER. Visiting Assistant
Professors: HILDEBRAND, SWANSON.

COURSE NUMBERS
The course numbering system used by the History Department reflects the type and
content of a course rather than its degree of difficulty. 100 level courses are departmental
seminars which serve as an introduction to the discipline; 200 level courses provide
an overview of an area or period; courses numbered 300-349 are more topical and deal
with a subject in greater depth; courses numbered 350-399 are research seminars with
limited enrollments; 400 level courses are senior major seminars.

THE FRESHMAN YEAR
The curriculum in History for the Freshman year is designed to familiarize students
with modes of historical reasoning and the range of historical evidence and to introduce
them to a wide variety of the historical experience. It consists, therefore, of two types of
courses: Department Seminars (History 103, 105, 106 and 108) one of which is required
of prospective majors and recommended for all students intending to elect further courses
in History; and a choice from the introductory courses offered at the 200 level.
ADVANCED PLACEMENT

The Department offers credit and placement to all freshmen who receive grades of 3 or above in the Advanced Placement examinations. Such credit may be used to satisfy two semester course requirements for the History major, both in the overall number of courses required and in meeting the group requirements within the major.

In addition, the department invites those freshmen who score 4 or 5 in the AP exams to substitute for History 100 level courses an advanced seminar, numbered 350+, for possible entry into the major. All freshmen with Advanced Placement credit are encouraged to enroll in history courses at the 200 or 300 level, thus taking advantage of their opportunity to do more advanced work in the Freshman year.

MAJOR PROGRAM

The major program in History affords each student an opportunity to fashion a sequence of study within a prescribed basic pattern designed to provide coherence, variety and a certain concentration in historical subject matter. It consists of at least nine semester courses, as follows:

**Required Courses in the Major**

At least one of the following Department Seminars:
- History 103, 105, 106 or 108
- History 301 Studies in the Western Tradition
- At least one of the following Senior Seminars. Both courses may be taken if a major prefers.
  - History 401 Studies in the American Tradition: Types of Social Change and the Historical Understanding
  - History 403 Studies in the Non-Western Tradition: Africa and Russia

In choosing their electives, majors should complete at least two courses in the field of their Senior Seminar.

**Elective Courses**

Six (or more) additional semester courses in History, at least one of these to be chosen from courses classified as belonging to each of the following four groups:
- **Group A**: American History, Canadian History;
- **Group B**: European History;
- **Group C**: African, Asian, Latin American, Russian History;
- **Group D**: Pre-Modern History. Courses in the 200 series also meet these requirements.

In any individual student's sequence of study, a single course can meet the requirement for no more than one of these Groups. Students will construct their sequence in consultation with a member of the department and subject to the department's approval.

Elective courses are generally open to all qualified students.

**SEMINARS**

History seminars (courses designated as 350 and above) are designed to treat more specialized subjects in greater depth. While open to all interested students, enrollment will be limited at the discretion of the instructor.

**AFRO-AMERICAN STUDIES AND AREA STUDIES**

Students majoring in History, who are undertaking a program in Afro-American Studies or in Area Studies, may substitute for one of the elective courses one course in Afro-American Studies or in an Area Studies program offered by another department.

**THE DEGREE WITH HONORS IN HISTORY**

Candidates for the degree with honors in history will choose one of the following courses of study by the beginning of the senior year, after which time they must complete the route selected or withdraw altogether from honors.

1. **Senior Thesis and Honors Colloquium**

   Within a ten course (plus WSP) major, candidates should submit proposals for a senior thesis during the spring of their junior year. The director of the history honors
History program will evaluate thesis proposals in May and present them with recommendations to the department. The proposal may use previous work as a starting point or be an entirely new undertaking. It may explore a broad theme, or, focusing more narrowly, involve intensive examination of a subject. The department invites students to consider a variety of innovative procedures, including extensive use of audiovisual materials. The completed thesis, whose length ordinarily will be in the range of seventy-five to a hundred pages, will be due in mid-April of the senior year, four weeks before the end of classes. Candidates will be enrolled in History 493-W31-494 which will meet as an honors colloquium at stated intervals throughout the year.

In mid-October students will prepare a brief prospectus of their thesis project for presentation to the colloquium. By the end of the Winter Study Period students will normally complete their research and write at least one chapter of their thesis. During the first two weeks of the second semester students will offer a synopsis of a chapter to group meetings of the colloquium for discussion and criticism. During the last four weeks of the semester the honors colloquium will hold group meetings organized around the discussion and criticism of individual theses. Each candidate will prepare a short summary of the final thesis to be distributed to all participants and will make an oral presentation. A student who has read the entire thesis will serve as the main critic of the work.

Final grades for History 493-494 will be based on the thesis, oral presentation and participation in the colloquium.

2. Specialization
Within a ten course (plus WSP) major, honors applicants will complete at least two seminars (350+) plus a 300 level course (in some cases a 200 level) that relates to one of the seminars. Both seminars must require of honors candidates a research paper. In addition, candidates for honors by the specialization route must take a WSP (W30) as independent study during senior year that results in a paper based upon reading a half dozen or so books chosen in consultation with one of the seminar instructors, a project that will relate to some aspect of the seminar. The paper will be graded pass/fail, but will be considered part of the evidence to be evaluated at the end of the senior year when the final determination of honors is made.

At the end of the senior year each honors applicant will be given an individual oral examination of one hour by members of the department. Any student who does not maintain a calibre of work considered appropriate for honors in each component of the specialization route, including grades of B or higher in each of the three courses, will be dropped from the program.

Final determination of those applicants who receive honors in history by the specialization route will be based on performance in the three courses, the WSP paper and the oral examination.

Candidates by the thesis and the specialization route whose work is judged by the department to be of particular distinction will be recommended for the degree with highest honors.

DEPARTMENT SEMINARS (History 103, 105, 106, 108)
These seminars are especially designed to help freshmen and sophomores explore and understand the past. Each seminar will have a limited enrollment in order to provide maximum opportunity for discussion. Readings selected for discussion will contribute to an understanding of both historical content and method, and the nature of history as an intellectual discipline will be explored. A research paper will be an important part of each course. All these seminars are intended to link up with the 200 level history offerings and to introduce themes explored in a broader setting in those courses, which a student can elect either before or after taking one of the 100 level seminars.

HIST 103 The Emergence of Modern America
This course deals with four interrelated topics that are central for an understanding of the American experience in the twentieth century: 1) the industrialization of the
History

American economy, the growth of the national corporation as the dominant form of business organization and the accompanying growth of organized labor; 2) the rise of the modern city and the transformation of America from a predominantly rural to a predominantly urban civilization; 3) the major political and social reform movements that first attempted to meet the problems created by an increasingly industrialized and urbanized society: the Populist uprising and Progressive revolt; 4) the emergence of the United States as a world power and its impact on domestic developments during the decade of the 1920's.

Keating, Tracy

[HIST 105] The Expansion of Europe (Not offered 1985-86.)

This course investigates the origins and nature of the expansion of European power and influence over much of the rest of the world from the time of the Crusades to the establishment of the British Raj in eighteenth century India. Specific topics include the Crusades, the expansion of medieval Europe, the development of Italian commercial capitalism, the discovery and conquest of the New World, the struggle with Islam for command of the Mediterranean and the establishment of European hegemony in the East Indies and on the Indian subcontinent. Students will investigate the way in which such factors as disease, individual personality, economic greed, military technology, and messianic religiosity combined to establish European influence on a world-wide scale in this early period.

Wood

[HIST 106] Europe in the Crucible: Wars, Collapse and Revival, 1914 to the Present

This course will concentrate on the impact upon European society of the two most cataclysmic events of the twentieth century: the First and Second World Wars. Specific topics for discussion will include the effects of “total war” on combatants and on the “home front”; the rise of Fascism and Communism; the Third Reich and the Holocaust; collapse of Europe after Hitler’s War; the contemporary “European Renaissance.”

Bahlman, Kohut, Wagner


Using African and Middle Eastern case studies, the course explores the historical development of non-western societies in the twentieth century. We will focus initially on the internal dynamics of economic, social and cultural changes brought about through the encounter with European imperialism and on some of the ways which we, as historians, seek to understand those changes. We will then explore some of the major themes in the modern history of the third world, such as urbanization and economic development, nationalism, religious revival and “the crisis of modernization,” as means to understanding the current situation. Visiting lectures will be given by Professor William Darrow of the Religion and History Departments.

Spear

[HIST 201] China to 1800 (Not offered 1985-86.)

This course will examine the evolution of Chinese politics and society from earliest times to the beginning of the nineteenth century. Themes to be explored include the historical geography of China, the roots of Chinese culture, the development of intellectual and religious systems, feudalism and the imperial state, village and urban life, the frontier and foreign trade, family and society, economic and technological transformation, and millenarianism and rebellion.

Open to freshmen. Groups C and D

Hour

Hershatter

[HIST 202] Modern China (Not offered 1985-86.)

This course will explore the history of China in the nineteenth and twentieth centuries. It begins with an examination of the social and political structures of the late
History

imperial state, traces the effects of foreign imperialism and massive peasant rebellions in the nineteenth century, then treats the sources and development of modern revolution in the twentieth century. The last third of the course focuses on attempts at social transformation in China since 1949. The course will draw on novels, short stories and films as well as standard historical sources.

Open to freshmen. Group C

HIST 204(F) The Making of Europe, 300-1300
The emergence of a specifically European civilization in the wake of the great disaster which had overtaken the classical civilization of the Mediterranean world. Discussion of the principal economic, political, religious and intellectual developments. Special emphasis on the flowering of European culture in the twelfth and thirteenth centuries.

Open to freshmen. Groups B and D

HIST 205(S) Europe from Reformation to Revolution: 1500-1815
Major historical developments in Western Europe during the early modern period. Emphasis will be on European-wide developments such as the Protestant and Catholic Re­formations; the seventeenth century crisis in government and society; the Scientific Revolution; the rise of absolutist states; the maturation of the aristocratic ancien régime; the Enlightenment; the French Revolution and Napoleonic Europe.

Open to freshmen. Groups B and D

HIST 206(F) Modern Europe, 1815 to Present
A topical study of modern European history. Emphasis is placed on those ideas, individuals, institutions and developments which have helped to shape the modern world. Readings include contemporary source material, biographies, novels and interpretive essays. Opportunity for independent study within the framework of the course.

Open to freshmen. Group B

HIST 208 A Distant Mirror: The Fourteenth Century
Barbara Tuchman's book argues that fourteenth century European society was much like our own in its anxiety, rapid change and political upheaval. This course will study the scope of fourteenth century life from its great catastrophes such as the Black Death, Hundred Years War and Great Schism, to the preoccupations and domestic details of everyday life. After examining this period through the literature, chronicles and personal writings of the time, the class will evaluate Tuchman's view that the fourteenth century affords us a valuable perspective on society today.

Discussion and lectures. Several short papers will be required.

Open to freshmen. Groups B and D

HIST 210(F) Colonial and Revolutionary America: 1607-1780
A study of the founding and growth of the British colonies in North America, the coming of the Revolution and the political settlement establishing the new nation. Source materials include biographies, community studies and contemporary propaganda. Particular emphasis on the interplay among demographic, economic and political developments; provincial society and religious ideas; and the problems of imperial rule versus growing ambitions for self-government. Lectures and discussion.

Open to freshmen. Groups A and D

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History

[HIST 211(S) The New American Nation: Politics and Culture from 1800 through Reconstruction (Not offered 1985-86.)
An analysis of the major social, economic and political trends that shaped the United States during the early and middle years of the nineteenth century. Particular attention will be paid to the relationship between national politics and the factors tending to divide Americans in an era that witnessed the rise of the two party system, Jacksonian Democracy, the beginnings of industrialization and a sharp increase in the rate of immigration, the deepening controversy between the North and the South, and the coming and aftermath of the Civil War. Readings will include contemporary sources, historical studies and biographies. Lectures and discussion.
Open to freshmen. Group A
Hour

[HIST 214 Modern America: 1929 to the Present
A study of the political, economic and social problems faced by Americans in recent years. Topics to be discussed include the coming of the Great Depression, the New Deal, World War II and its social and diplomatic consequences, internal crises and results of the Cold War during the Truman and Eisenhower years, Johnson’s “Great Society” as part of the legacy of the 1960’s, the anguish of the Nixon Presidency and contemporary efforts by Reagan and the Republican party to diminish the role of the Federal Government in domestic affairs.
Open to freshmen. Group A

[HIST 216 Greek History (Not offered 1985-86.)
The political, social, economic and cultural history of the Greek world from the Minoan period to the death of Alexander, with special emphasis on Fifth Century Athens and the rise and fall of the Polis.
Lectures and discussion. Consultation of the ancient sources in translation.
Open to freshmen. Group D
Hour

[HIST 217(S) Introduction to Islamic Civilization (Same as Religion 217) (Not offered 1985-86.]
(See under Religion for complete description.)
Groups C and D

[HIST 218 Roman History
The political, social, economic and cultural history of the Roman world from the foundation of the city through the reign of Diocletian, with special emphasis on the Roman Revolution and foundations of the Principate.
Lectures and discussion. Consultation of the ancient sources in translation.
Open to freshmen. Group D
Hour

[HIST 219 African History to 1900
The course will examine in detail select topics and themes of African history, concentrating on processes of social and cultural change at the local level prior to the nineteenth century. Topics to be studied include traditional society and culture, processes of change, the growth of states, and the impact of trade, including the slave trade, on social and cultural institutions. In the process, we will explore some of the more unusual sources historians use to reconstruct the African past, such as oral traditions, archaeology, comparative linguistics, ethnography and anthropology. Ethnographies, novels and films will also be used to gain a greater understanding of the African perspective.
Open to freshmen. Groups C and D
Hour
HIST 220  Modern Africa

African peoples have been conquered, colonized and regained their independence during the past century. The course looks at African society prior to the colonial conquest, and then explores responses of Africans to European control and settlement, the development of cash economies, urbanization, education and Christian missionary efforts. It closes with an examination of some of the problems facing Africa today. Ethnographies, autobiographies, novels and films will be used to supplement historical texts to achieve a greater understanding of values motivating African actors in the historical drama.

Open to freshmen. Group C

SPEAR

HIST 224(F)  Women in Western Culture (Not offered 1985-86.)

A topical survey of the role of women in Europe and America, from antiquity to the present, with a focus on the relation of the changing definition of woman's nature and power to the changing economic and political circumstances in which she lives. Special attention will be paid to the influence of religious doctrine and scientific development in both liberating and restricting women, the "woman question" in the political reforms of the modern era, and the crucial consequences for women of the Enlightenment's redefinition of the nature of childhood. Throughout the course, we will examine the usefulness of various ideological perspectives (liberal, Marxist, feminist) in illuminating the condition of women, and we will explore some of the ways in which the history of women challenges and enriches traditional approaches to political, social and economic history.

Classes will include lectures and discussion of readings and students will choose (in consultation with the instructor) among a variety of exam and research paper options.

Open to freshmen. Groups A, B and D

TRACY

HIST 226  Latin American History

A selective study of Latin America from pre-Columbian times through the present. Primary emphasis will be placed on Mexico, Peru, Argentina and Chile during the last century. Issues which will be traced through these historical periods include: land distribution, the role of the Catholic Church, the interaction of European and indigenous cultures, urbanization and modernization, and the economic and political relationship of Latin America to Europe and the United States.

Open to freshmen. Groups C and D

KEATING

HIST 253  Modern Japan

This course will utilize a wide variety of religious, social, political and literary materials to explore why Japan has developed into one of the major industrialized nations in the world. The syllabus will be divided into a section dealing with the relationship between traditional Samurai culture and Japan's response to the West, a section showing how the modernization process broke down during the period of Fascism, war and the American occupation and a section analyzing aspects of contemporary Japanese society. Each student may choose to write either two short papers on suggested topics or a research paper in an area of particular interest. There will also be a final examination designed to sum up basic issues raised in discussions.

Not open to freshmen. Group C

FROST

HIST 263  Introduction to Afro-American History

This course provides a survey of the Afro-American experience from the African background to the landmark Brown decision of 1954. The course will stress the development and abolition of slavery, Black leadership and strategies for racial advancement, the rise
History

of urban ghettos, and the role of Black institutions. Discussion course with two short papers and a final examination.

Group A

Hour

HIST 301 Studies in the Western Tradition

This course, designed primarily for History majors during the first semester of the junior year, focuses upon the emergence and development of ideas and institutions that have shaped the Western tradition. The specific content of the course may vary from year to year. The course is planned to enrich students’ understanding of European history and to give them a basis for comparing its traditions with those of America and the non-Western world.
Required course in the major.

Hours

HILDEBRAND

HIST 303(S) American Labor History

This course will trace the development of the American working class, beginning with the rise of the factory system in 1815 and ending with a contemporary assessment of labor's social and economic condition. Several specific topics will be discussed. Among them are the origin and changing purposes of trade unions; an historical evaluation of immigrants, Blacks and women as major segments of the working class; the impact of the factory system and advancing technology upon both skilled and unskilled laborers; and the relationship of the law and government with American labor.

Open to sophomores. Group A

HILDEBRAND

[HIST 305(S) Modern Germany (Not offered 1985-86.)

A survey of German History since the beginning of the nineteenth century to the present. Using literature, film, written documents and secondary sources, the history of modern Germany will be examined from a political, social, intellectual and cultural perspective. A central theme of the course will be the ongoing attempt of Germans during the last two centuries to define the German nation and to determine its place in Europe. A lecture/discussion course with the option of three short interpretative essays or one longer term paper and a final examination.

Open to sophomores. Group B

KOHUT

HIST 306 Medieval England

A history of England from the Anglo-Saxons to the Tudors with special attention given to the evolution of English society, law and political institutions. England will be studied in comparison with analogous developments in Scotland and Ireland. There will be heavy reliance on original sources including literature.

Lecture-discussion course. A research paper will be required.

Open to sophomores. Groups B and D

SWANSON

HIST 307(S) The French Revolution

An analysis of the origins, course and consequences of the French Revolution. The course will investigate the socioeconomic and political reasons for the Old Regime's collapse in the Revolution of 1789, the destruction of the constitutional Monarchy, the establishment of a radical revolutionary dictatorship, the struggle to overcome the forces of Counterrevolution, the Thermidorian Reaction, and the transformation of Revolutionary France into Imperial France under Napoleon I. Special attention will be focused on the intellectual and economic origins of the Revolution, the role of crowds, social classes, and revolutionary personalities, the causes and consequences of the Reign of Terror, the social origins of the Counterrevolution, and the impact of events in France on the rest of Europe. Conflicting historical interpretations will be discussed, and atten-
tion paid to the problem of using the events of the Revolution to develop a theoretical model of violent social and political revolution.

Open to sophomores. Groups B and D

HIST 308 Women and the Family in Modern America (Same as American Studies 308)

An investigation of the changing structures and functions of families in America from the early nineteenth century to the present, with particular emphasis on the evolution of attitudes toward children and the roles of women within the family and in the "public" world of work and politics. The analysis will focus on the ways that regional, class, ethnic, religious and racial differences among families have influenced variations in a) ideas about the "proper" roles of women and families, and b) patterns of behavior. We will also analyze significant historical movements (the shift from a rural to an urban society, immigration, mobilization for war, the civil rights and women's rights movements) from the perspective of gender differences and family life—and search for new ways to discuss and periodize important historical changes.

Reading and discussion course. Students will write two short essays and a longer research paper on topics of their choice.

Group A

Hour

HIST 310 Family and Community in Early America (Same as American Studies 310) (Not offered 1985-86.)

A study of the varied forms of family and household in pre-industrial America and the functions they served under different conditions of community organization. We will pay particular attention to: the influence of religious ideology, demographic factors and the frontier setting; variations in family organization among different racial and ethnic groups and economic classes; the changing roles of women and children; and the use of family relationships as metaphors for political and economic power. Extensive reading and discussion of primary and secondary sources. Written work in the course will be arranged in consultation with the instructor and will be keyed to student interests.

Open to sophomores and also to freshmen with Advanced Placement Credit in American History. Groups A and D

Hour

HIST 311(S) History of the Old South

During the course of the semester, we shall investigate two broad, interrelated topics: slavery in the antebellum South, and the impact of slavery on southern civilization. Our approach will be primarily topical. In the first half of the course, we shall look at subjects like the origins of slavery in British North America, the foreign and domestic slave trade, patterns of work and treatment, the nature of the master-slave relationship, resistance and rebellion and slave cultural, social and family life. The second half of the course will concentrate on the influence of the institution of slavery on the mind, social structure and economy of the Old South, and slavery's impact on southern politics and the decision for secession in 1860-61. Classes will be primarily discussion. A midterm, a final exam and a brief paper (to be worked out in consultation with the instructor) will be required.

Open to sophomores. Group A

Hour

HIST 312 History of the New South (Not offered 1985-86.)

A study of the history of the American South from 1877 to the present. Social, political and economic trends will be examined in some detail: the rule of the "Redeemers" following the end of Reconstruction; tenancy, sharecropping and the rise of agrarian radicalism; southern Progressivism; the coming of racial segregation and the destruc-
History

tion of the Jim Crow system during the years of the Civil Rights movement; southern politics during the depression and post-World War II years; and the economic emergence of the "Sunbelt" region in our own day. Classes will be primarily discussion. A midterm, a final exam, and a brief paper (to be worked out in consultation with the instructor) will be required.

Open to sophomores. Group A
Hour

[HIST 313(S) The Rise of American Business (Same as American Studies 313) (Not offered 1985-86.)]

An examination of the complex process that saw business enterprise move from a marginal position in the largely agrarian society of the early colonial period to become, by the twentieth century, one of the principal forces shaping American culture. Subjects to be considered: the business and political activities of colonial merchants, early American attempts at industrialization, the business careers of John D. Rockefeller and Andrew Carnegie and the growth, since 1900, of multidivisional corporations like DuPont and General Motors. Readings will include historical studies, biography, autobiography and fiction. Students will write a series of short analytical papers and will have the choice of either writing a longer, final essay or taking a final exam.

Open to sophomores and also to freshmen with Advanced Placement Credit in American History. Group A
Hour

[DALZELL]

[HIST 315(S) The Civil Rights Movement (Not offered 1985-86.)]

The course will examine and assess the civil rights movement in the United States. We will discuss how a broadbased coalition of Blacks, liberal whites, labor unions and other important groups cooperated during the 1950's and 1960's to end the bondage of secondclass citizenship imposed on Black Americans for nearly a century. We will trace the development of the movement from the landmark Brown decision in 1954 through the passage of the Voting Rights Act of 1965. The course also will focus upon the impact of the race riots of the late 1960's and the transition from civil rights to Black Power. The course will conclude with an assessment of the 1970's and with a discussion of the factors which decelerated the civil rights movement. Lecture-discussion course.

Open to sophomores. Group A
Hour

[HIST 318(F) America in the Thirties (Not offered 1985-86.)]

A detailed examination of the politics and culture of the New Deal era. Special emphasis on the diverse struggles for redefinition of modern American society—in government and politics, labor, gender and race relations, literature, photography and film, theatre, painting and popular culture. A lecture-discussion course. Students will write one short essay and a longer final paper.

Open to sophomores. Group A
Hour

[M. L. SMITH]

[HIST 319(S) Technology and American Culture, 1893 to the Present (Same as American Studies 319) (Not offered 1985-86.)]

An exploration of the social, political and cultural responses to technological change in modern America. Emphasis on the workplace, the environment, gender and technology, consumer culture, the atom bomb and the arms race. Case studies, political debates, photographs, films, advertisements and science fiction will help us examine American worship—and fear—of technology; technological determinism (what social choices underlie technological change?); and technological display (how do our perceptions of technology compare with its impact on society?). No technical background
History

required. Students may choose between a series of short papers and a more extensive research project.

Open to sophomores and also to freshmen with Advanced Placement Credit in American History. Group A

Hour

M. L. SMITH

[HIST 320(F)  Modern Britain (Not offered 1985-86.)

Beginning in 1815, an examination of English society and culture from the Victorian era to the present. Special emphasis on nineteenth century reform movements and their political and intellectual foundations; the impact of industry on society; imperialism; the evolution of the welfare state; the effects of two world wars.

Open to sophomores. Group B

Hour

BAHLMAN

HIST 322 (formerly 222)  Vietnam

This course uses a wide variety of readings, films, guest lectures and small group discussions to illuminate some of the major controversies surrounding the history of Vietnam in the twentieth century. While naturally concerned with topics as diverse as the relations of the major world powers to Vietnam and the role of the media in reporting the war, our main concern will be to analyze the sources of Communist Party strength in Indochina, the reasons why American counter-insurgency tactics failed, and the causes of continued instability in the area. Course requirements will include an hour test, a short paper on an approved research topic and a final examination.

Not open to freshmen. Group C

Hour

FROST

HIST 323(S)  Tudor and Stuart England, 1485-1714

The development of "Tudor absolutism" and the collapse of Stuart absolutism; the age of Elizabeth; the expansion of England; the growth of parliamentary power; religion, politics and civil war; the Restoration and growth of parties; the Glorious Revolution and the emergence of England as a Great Power.

Open to sophomores. Groups B and D

Hour

BAHLMAN

[HIST 324  The History of Warfare from Ancient to Modern Times (Not offered 1985-86.)

This course surveys the history of warfare from ancient to modern times. It will concentrate on episodes of major conflict, such as the Punic, Mongol, Napoleonic, American Civil and Arab-Israeli Wars, as well as World Wars I and II. Systematic consideration will be given to the historical consequences of changes in military technology, organization, strategy and tactics. The role of military leadership and the problem of the military mind will be explored through case studies of such leaders as Hannibal, Chingis Khan, Napoleon, Lee, Zhukov, MacArthur, Dayan and Giap. The causes and consequences of warfare, as well as the perplexing problem of why, despite all its horrors, warfare has been and continues to be a ubiquitous phenomenon, will also be investigated.

Open to sophomores.

Hour

WOOD

HIST 325  Modern European Intellectual History

An examination of the principal intellectual traditions of Western Europe since the Enlightenment. The works of individual thinkers—including Vico, Kant, Hegel, Spencer, Comte, Marx, Freud, Croce, Weber and Sartre—will be studied. The aim of the course is to familiarize the student with some of the most important ideas of modern Europe and to consider the role of ideas in history, how ideas respond to an intellectual, political, social and cultural environment and how they, in turn, influence that envi-
History

ronment. A lecture/discussion course with the option of three short interpretative essays or one longer term paper and a final exam.
Open to sophomores. Group B

[HIST 326 Modern France (Not offered 1985-86.)
A study of the development of France from the Revolution to the Fifth Republic. The recurrent crisis in French history during the nineteenth and twentieth centuries will serve as the focus for reading and discussion in the course and will be used to illustrate the continuity which underlies successive political upheavals. Special attention will be paid to the problems of contemporary France and the relationship to the crises of the past.
Open to sophomores. Group B

[HIST 328(F) History of Canada
A study of the emergence of Canada as a nation with emphasis on the contrast and conflict between the two historic cultural and ethnic groups—the French and the English—who comprise a majority of Canadians. Major themes of the course will also include the evolution of separate colonies into a self-governing Dominion, the subsequent development as an independent nation, and the search for a national identity which can accommodate both English and French Canadians.
Open to sophomores. Group A

[HIST 330(F) American Intelligence: An Historical Approach to the CIA
This course will examine the long standing practice among nations, through the experience of the United States, of procuring information regarding both the capabilities and intentions of foreign governments, and then acting upon that information. Among the topics that will be studied are the following: the nature of intelligence as a craft; the limited experience of the United States before 1940, during an age of security-strategic intelligence and the Pearl Harbor attack; OSS operations during World War II; case studies involving CIA since 1947 in Latin America, the Middle East and Africa; the crisis of the CIA during the 1970's; and questions relating to the establishment of standards and their enforcement, for an intelligence agency in a democracy.
Requirements, an hour test, final examination and two short papers will be required. A discussion course, enrollment will be limited to 30 if necessary.
Open to sophomores. Group A

[HIST 331 Southern Africa: Race, Class and Ethnicity in the Modern World
"Crisis" and "conflict" figure prominently in recent studies of Southern Africa as the last two decades have witnessed guerilla wars in Angola, Mozambique and Zimbabwe and continued racial violence in South Africa. The course will explore the roots of the present situation in the African and colonial past and examine some of the explanations, based on concepts of race, class and ethnicity, used to interpret it.
Open to sophomores. Group C

[HIST 332 Class, Gender and Community in China 1680-1980 (Not offered 1985-86.)
A study of rural Chinese society from the late imperial periods to the present. We will begin by analyzing the late traditional Chinese village: the structure of the family, lineage and clan organizations, the economic and social role of women, the village elite, landlord-tenant relations, production for the market, and forms of social protest. We will then explore changes in village life during the nineteenth and twentieth centu-
History

ries, examining the relationship of the village to larger national phenomena such as imperialism, war and revolution. Lecture-discussion course. Students will write one short essay and one longer research paper or essay (individual or collaborative) on topics of their choice.

Open to sophomores. Groups C and D
Hour

[HIST 333] Forgotten Europe: The Habsburg Empire and Eastern Europe, 1848 to the Present [Not offered 1985-86.]

A selective study of the political, social, economic and intellectual history of the Habsburg Empire and successor states from the revolutions of 1848 to the present. Particular attention will be paid to the problems besetting a multi-national state in an era of increasing state centralization and intensifying nationalism, the interaction between national and social conflict, and the strategic position of Eastern Europe in the European political system. The course will conclude with an examination of the problems and selected reform movements in contemporary Eastern Europe. Lecture-discussion course; final exam and three short interpretative essays.

Open to sophomores. Group B
Hour

[HIST 334] The Diplomacy of the United States as a World Power, 1900 to the Present

A history of the causes and consequences of American foreign policy in the twentieth century. Special attention will be paid to American imperialism and its decline; to early twentieth century Caribbean and East Asian policy; to the origins and results of United States involvement in two World Wars; to Russo-American and Sino-American rivalry in the context of the Cold War, and to changing American global concerns in the aftermath of the failure in Vietnam. There will be a continuing emphasis on the relationship between diplomatic commitments and military power, and the role of diplomacy and diplomats in a democracy. Approximately half the classes will consist of lectures and the other half will be class discussions based upon common reading.

Open to sophomores. Group A
Hour

[HIST 335] Early American Diplomacy: Nationalism and Expansionism, 1775-1900 [Not offered 1985-86.]

A history of American diplomacy from the eighteenth century to the Cuban-Spanish-American War. Special attention will be paid to the sources and expressions of isolation; the involvement of the United States in European conflicts; the Monroe Doctrine and its various interpreters; the causes and consequences of continental expansion—Louisiana, Oregon, Florida and Texas; the diplomacy of the Civil War; and America’s changing world outlook during the 1880’s and 1890’s.

Open to sophomores. Group A
Hour

[HIST 336(F)] The American West Since 1848 [Not offered 1985-86.]

A thematic study of the social, economic and political development of the West from the Mexican-American War to the present. Topics will include the overland experience, Indian policy, ethnicity in the West, the mining frontier, ranching, railroads, farmworkers and the rise of agribusiness, development versus environmentalism, Hollywood and the image of the West, federal management and regional identity.

Open to sophomores. Group A
Hour

[HIST 337] Russian History to 1855

A survey of Russian political, social, economic and intellectual history to the end of the Crimean War. Some attention will be paid to the Kievan and Novgorodian states,
but primary emphasis will be given to the political, cultural and social foundations and rise of the Muscovite autocratic state and its transformation into the Russian Empire beginning with Peter the Great, to the social, economic and political changes that accompanied this transformation and the increasing intrusion of the Russian Empire into European politics, and to the intellectual response to these changes and Russia’s increasing contact with Western Europe. Lecture-discussion course, options of exams and/or research papers.

Open to sophomores. Groups C and D

W. Wagner

HIST 338 Russian History, 1855 to the Present

This course will examine the main social, political, economic and intellectual currents that have shaped Russian and Soviet history from the end of the Crimean War to the present. Particular emphasis will be paid to the role of the state in the process of Russian and Soviet development; the role of social change, education, economic development and intellectual ferment in destabilizing the tsarist regime; the process of revolutionary change from 1917 to the early 1930s; and the emergence of Stalinism from revolutionary social change, Russian cultural tradition, Bolshevik ideology, and the process of state directed economic transformation. The course will conclude with a brief examination of the post-Stalin political and economic systems and of contemporary Soviet society. Lecture-discussion course; final self-scheduled exam and two short, interpretative essays required.

Open to sophomores. Group C

W. Wagner

[HIST 339 Religion and Revolution in Iran (Same as Religion 227) (Not offered 1985-86.)

This course explores the Iranian revolution as a case study in revolutionary change in the third world. The economic and social history of Iran in the twentieth century will be surveyed, but the religious and cultural elements that are so crucial for understanding the revolution will also be explored through literature. The immediate revolutionary period, 1978 until the present, will be examined in depth. Special attention will be focused on the articulation of a radical religious ideology, including its stance toward Marxism and imperialism and its vision of the place of woman. Since the Iranian revolution is one that confounds revolution theory, some attention will be directed to the implications of the Iranian case for theories of revolution.

Open to sophomores. Group C

Darrow]

HIST 343 The American City: 1900 to the Present

Metropolitan areas today are home to a majority of Americans, but only a century ago most of this country's population lived in rural areas. This course provides an opportunity to explore this transformation, as well as to take a closer look at change in U.S. society which were largely played out in an urban setting. Particular attention will be paid to the interrelationships between political institutions and traditions and specific topics such as suburbanization, transit innovation, race relations, sunbelt regional development and boss politics. The course will follow a lecture/discussion format. A 10-12 page research paper will be assigned and an examination will be required.

Group A

Keating

[HIST 347 The Renaissance (ca 1350-1520) (Not offered 1985-86.)

The principal political, economic, intellectual, cultural and religious developments of the period of the Renaissance. The focus will be on such topics as the “recovery” of antiquity, the rise of humanism, and the visual arts, and changing fortunes of the great Italian city-states.

Open to sophomores. Groups B and D

Wood]
History

[HIST 349  Post-War America, 1945 to the Present (Not offered 1985-86.)

This course provides an analysis of key political, social and economic trends in U.S. society from 1945 to the present. The basic political history of the period will be explored through its presidential elections and administrations. Building from this base, issues such as the expansion of the federal government and its budget, the civil rights movement, suburbanization, urban renewal, McCarthyism, the feminist movement, the shift of national economic growth from the northeast to the southwest, developments in mass media and the view from the home front of Korea and Vietnam will be explored. Particular attention will be paid to the key actors and personalities helping to shape post-war America.

Open to sophomores. Group A

Hour  [KEATING]

SEMINARS

HIST 352  Personality, Politics and Society: Germany During the Reign of Kaiser Wilhelm II

This seminar will consider the interrelation between personality, politics and society in Imperial Germany during the reign of Kaiser Wilhelm II (1888-1918). Given the profound social and political divisions within Imperial Germany and its precarious position as an emergent economic and military power in central Europe, the question of its survival as a nation will be addressed. What role did social and political divisions play in determining German foreign and military policy? To what extent did Germany's geographic and diplomatic position work to determine the domestic policies pursued by the German government? What role did the personality of the Kaiser and of those close to him play in shaping the government's foreign and domestic agenda? This fateful period in German history will serve to introduce students to the broader problem of understanding the interaction of psychological, political and social factors in history and of assessing their relative historical importance. Class will meet once a week for discussion of common readings and for reports on individual research problems.

Requirements are active participation in classroom discussion and one long research paper.

Group B  Enrollment limited.

Hour  [KOHUT]

HIST 354(F)  The Victorian Age

A study of English culture in the nineteenth century through reading and research in topics of political, social and intellectual history: domestic reform, the growth of democracy and industry, the conflict of science and religion. Special attention will be devoted to some of the 'great Victorians': J. S. Mill, J. H. Newman, Darwin, Disraeli and Gladstone.

Group B  Enrollment limited.

Hour  [BAHLMAN]

HIST 355 (formerly 345)  Man and Nature in America

An historical approach to the American environment and man's attitudes toward it from the seventeenth century to the present. Colonial views toward the wilderness and the Indian; nineteenth century settlement of the West; conservation and the use of natural resources. Literary and artistic sources will be studies as well as historical writings.

Open to sophomores. Group A  Enrollment limited.

Hour  [LABAREE]

HIST 356  The Origins of Modern Warfare

An investigation of the methods and institutions for waging war from the Hundred Years War to the wars of the French Revolution and Napoleon. Major topics for assigned readings and discussion will include: the transition from private to public armies, the development of permanent standing armies, the increasing use of military forces in
pursuit of national rather than particularistic or dynastic goals, and the relationship between these changes and current social, economic and technological developments. In addition, each student will write a substantial research paper on an aspect of military history during the early modern era. Topics for research may include warfare at sea as well as on land and may extend to non-European areas of the world where European military power was being exercised.

Groups B and D. Enrollment limited.

HIST 357(S)  The Diplomacy of the Cold War, 1945-1963
An intensive study of the diplomacy of the United States vis à vis the Soviet Union, the People's Republic of China and the Communist world during the origins and first two decades of the Cold War. Special attention will be paid to the following topics: the controversy over the origins of the Cold War as viewed by revisionist and non-revisionist writings; Truman-Acheson policies of containment in Europe and Asia, and the Communist reactions; Dulles-Eisenhower diplomacy; the transitional efforts of the Kennedy years; and the causes and consequences of the Johnson administration's embroilment in Vietnam.

Group A  Enrollment limited.

Hour

HIST 358(F)  Europe in the Era of World War I (Not offered 1985-86.)
A study of World War I as a significant turning point in the history of the western world; prewar society and politics; causes for the outbreak of war; changes in politics, economy and society brought about by the war; problems of peacemaking. Discussion, individual conferences and a term paper.

Group B  Enrollment limited.

Hour

HIST 359 Historians and History of China (Not offered 1985-86.)
This seminar will examine the ways in which certain attitudes, concerning the nature and character of Chinese society, have been formed through the writings of historians, travelers, social critics, and novelists who have looked at China from European and American experience and expectations. It begins with medieval visitors to China, the Papal envoys to the Great Khans and Marco Polo. It then explores China in the eyes of European, the concept of Oriental despotism, portrayals of the Chinese peasantry, and visions of the Chinese revolution. The course concludes with a critical examination of attitudes toward contemporary Chinese society.

Group C  Enrollment limited.

Hour

HIST 360(F)  Civil War and Reconstruction (Same as Afro-American Studies 401)
An examination of one of the most turbulent periods in American history, with special emphasis on the changing status of Afro-Americans during this era. During the war years, we shall study both the war itself and homefront conditions: military, naval, political, economic and especially social aspects will be examined in some detail. Our study of Reconstruction will concentrate on the evolution of federal policy toward the southern states and the workings out of that policy in the South, particularly as it relates to the freedmen. The major piece of work in the course will be a research paper based at least in part on primary sources.

Group A  Enrollment limited.

Hour

HIST 362  The American Revolution (Not offered 1985-86.)
An examination of the ideological and social aspects of the movement for American Independence, 1760-1790, with a focus on the communities and careers of selected Patriots and Loyalists, Federalists and Anti-federalists. We will also survey the historio-

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History of the Revolution, from contemporary accounts to recent analyses. Class will meet once a week for discussion of readings and progress reports on individual projects; requirements are substantial participation in classroom work and one long research paper.

Groups A and D  Enrollment limited.

Hour

HIST 363  Resurgent Islam (Same as African and Middle Eastern Studies 401 and Religion 225)
(See under Religion for full description.)

Group C

HIST 364  Social Change in China (Not offered 1985-86.)
This seminar will explore social transformation in China in the nineteenth and twentieth centuries by looking at the experience of specific social groups: peasants, women, intellectuals and youth. We will also evaluate the usefulness of gender and class analysis as tools of the historian. Class will meet once a week for discussion of common readings and reports on individual research projects. Requirements, active participation in classroom discussion and one long term paper.

Group C  Enrollment limited.

Hour

HIST 365(S)  Contemporary Asia (Same as Asian Studies 402)
This seminar is designed primarily to allow students who have had a course in the area the chance to pursue particular topics of interest. The first part of the course will compare historians' judgments of the reasons why Japan industrialized in the late nineteenth century while China did not, the relationship between this industrialization and the rise of fascism and communism, and the quality of life in Asia today. The remainder of the seminar will then be devoted to the preparation and presentation of individual student research papers. Comparisons with European or American civilizations will be encouraged.

Group C  Permission of instructor required. Enrollment limited.

Hour

HIST 367  Contemporary Africa (Not offered 1985-86.)
The end of colonial rule and the coming of independence in the early 1960's raised high expectations of political freedom and rapid economic development among African peoples; expectations which were rapidly modified as civil wars, corrupt, authoritarian and military regimes; and stagnant development followed. The seminar will be an intensive study exploring the problems of social change, of political consolidation and of economic development in the wider context of African history.

The seminar will meet once a week to discuss common reading and individual research projects and students will prepare a final research paper.

Group C  Enrollment limited.

Hour

HIST 371(S)  China and America: Cooperation and Conflict in Modern Times (Not offered 1985-86.)
An intensive study of American reactions—both official and unofficial—to a China undergoing a half century of drastic change in a time of nationalism, revolution and war. Special attention will be paid to an assessment of American policy in relation to the following: Chiang Kai-shek's Nationalist movement during the 1920's and 1930's; the Sino-Japanese conflict and World War II; the triumph of Mao and the Communists; the clash in Korea and its aftermath of Cold War in East Asia; the problem of Taiwan; the Kissinger-Nixon opening to China; and the normalization of relations with the People's Republic of China in 1979.

Hour

T  racy

S  hershatter

F  rost

S  pear

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Meetings will be held once a week to discuss common readings; students will also have the opportunity for independent research on subjects appropriate to the course. **Group A  Enrollment limited.**

**Hour**

[HIST 373(S)  Society in Revolution: Russia 1917 to 1931 (Not offered 1985-86.)](#)

This course is designed to provide both an intensive common study of the revolutionary upheaval and experimentation in Russian social, political and cultural life between the February Revolution of 1917 and Stalin's consolidation of power in 1931/1932 and an opportunity for students to explore some aspect of this upheaval in greater depth. Thus meetings will be held once a week to discuss common readings on selected topics, such as the development of the Bolshevik Party and Soviet political system, the influence of mass unrest on the course of the revolution, the role of literature in revolution, the conflict over revolutionary ideology, and the impact of the revolution on women and the family. In addition, students will undertake independent research on a topic of their choice, but approved by the instructor. The results of this research will be shared through oral reports and written reviews of each other's work. **Group C  Enrollment limited.**

**Hour**

[HIST 375(S)  Pathways to Utopia: Russian Radical Thought and Its Critics from Herzen to Lenin](#)

From the later 1830s a tradition of radical thought began to develop in Russia, as disaffected intellectuals searched for the sources of and means to overcome Russia's backwardness and their own alienation from tsarist society. This course will examine the development and main themes of this tradition, from the radical republican Belinsky and socialist Herzen, through Chernyshevskii, the populists, the anarchist Ravunin and the Marxists, to Lenin and the Bolsheviks. Conservative, nationalist and spiritualist criticisms of these ideas by such critics as the Slavophiles, Dostoevsky and Berdiaev will also be explored.

The seminar will meet twice weekly to discuss common readings and the students' own research. Students will also be required to prepare an independent research paper and to write a critique of another student's research. **Group C  Enrollment limited.**

**Hour**

[HIST 377  Creating the Past: The Historic Preservation Movement in the United States (Not offered 1985-86.)](#)

For more than a hundred years Americans have been working—both individually and in groups—to conserve the manmade, physical evidence of their past. The result has been a steady proliferation of "historic" museums, houses, districts, even whole communities, that seek to convey a sense of what life was like and how people lived, in the past. The seminar will devote itself to an analysis of that phenomenon. The emphasis will be on understanding the historic preservation movement as itself the product of a process of historical development that saw significant changes in goals, strategies, organization, support and personnel occurring over time. Roughly the first two-thirds of the semester will be spent studying a limited number of specific examples in detail—several at the actual sites themselves. Thereafter, students will prepare individual projects on topics of their own choice. **Group A  Enrollment limited.**

**Hour**

D. WAGNER
HIST 401  Studies in the American Tradition: Types of Social Change and the Historical Understanding
The purpose of this course is to consider how Americans have thought and acted about the process of change in society and whether or not an American "tradition" has developed over the years in response to the demands of social change. Selected case studies for analysis will be chosen from the following: the decision for independence in 1776; Lincoln, the abolitionists and segregation; imperialists vs. anti-imperialists in the 1890's; early twentieth century industrialists and reformers; controversy over the emergence of the welfare state; civil rights crusade of the 1950's and the women's rights movement of the mid-century and the 1970's; and the relationship between economic growth and environmental problems.
Optional requirement in the major.

OR

HIST 403  Studies in the Non-Western Tradition: Africa and Russia
The course focuses on the transformation of rural peasant societies in Africa and Russia during the late nineteenth and twentieth centuries and on some of the ways in which historians have sought to identify, understand and explain the changes which occurred. We will begin by discussing some of the standard historical and anthropological approaches to peasant societies. The impact of industrialization, urbanization and education on these societies will then be explored in specific case studies that focus on processes of change and on the ways these processes were perceived by contemporary analysts and the people themselves. We will conclude by reflecting on the degree to which the analytical tools traditionally employed by historians adequately explain the history of peasant societies.
Optional requirement in the major.

HIST W30  Senior Project
To be taken by candidates for honors other than thesis route.

HIST 493-W31-494  Senior Thesis
HIST 497, 498  Independent Study

HISTORY OF IDEAS (Div. II)
Chair, Professor Clara C. Park
Advisory Committee: Professors Edgeron, Lawrence, D. Park. Associate Professor Dunn. Assistant Professors Assefa, Kohut.

The fabric of every human society and culture is interwoven with ideas. Those which deal with the nature of human beings, of good and bad actions, of beauty and justice, of God and nature and the supernatural world express the individuality of the times and places they govern. Ideas do not occur at random in a society. They originate, grow, divide, flourish; sometimes they die. In effect, they have a history. The aim, then, of the interdepartmental program in the History of Ideas is to make it possible for students to consolidate some of their course elections in the humanities and social sciences in such a way as to focus in a coherent fashion on some aspect of that history as well as on the modes of inquiry peculiar to the field.
Students considering a concentration in the History of Ideas are urged to register with the Chair of the program during their sophomore year and to map out then, with his approval, their proposed cluster of courses. They will normally be expected to take six courses from at least three different departments. One of these courses should be chosen from among the “Foundation Courses” listed below. Four should be from the “Studies in the History of Ideas” electives and clustered in one of three broad areas: 1) History of Philosophical and Religious Thought; 2) Art, Literature, Science and the History of Ideas; 3) History of Social and Political Thought. The Chair may permit substitution of another Williams course, an approved Winter Study Project, or work completed elsewhere for one or more of those listed electives. The sixth course will be the History of Ideas 401 “Capstone Seminar” required for this concentration. Proposals for Honors work in the History of Ideas, normally involving at least a one semester thesis and an oral examination, must be submitted in writing by the beginning of the senior year and approved by the History of Ideas Committee.

Fulfillment of the requirements of the program will be recorded on the student’s official transcript.

**Foundation Courses**

All students are required to take at least one of the following courses, preferably near the beginning of their program.

- Economics 214 History of Economic Thought
- History 325 Modern European Intellectual History
- Philosophy 202 Greek Philosophy
- Philosophy 204 History of Philosophy: Locke to Hegel
- Political Science 231 Ancient and Medieval Political Philosophy
- Political Science 232 Modern Political Philosophy
- Religion 202 Christian Tradition

**Studies in the History of Ideas**

All students are expected to take four electives clustered in one of the following areas. Note that in some cases credit can be given for a course not included in this list, a WSP or work done elsewhere.

1) **History of Philosophical and Religious Thought**

- German 204 Nietzsche, Bismarck, Fontane, 1870-1889
- History 309 Catholic, Protestant, Puritan in the Age of Reformation (Deleted 1985-86.)
- History 361 Western Political Thought in Transition (Deleted 1985-86.)
- Philosophy 207 Philosophy of Religion (Deleted 1985-86.)
- Philosophy 227 Philosophy and Technology
- Philosophy 258 Nietzsche and William James (Deleted 1985-86.)
- Philosophy 321 Existentialism
- Philosophy 330 Wittgenstein (Deleted 1985-86.)
- Religion 201 The Jewish Bible/Old Testament
- Religion 203 Moses, Jesus, Muhammad
- Religion 204 The New Testament
- Religion 205 Religion and Modern Secularism
- Religion 207 Hinduism: Pathways to Salvation
- Religion 208 Buddhism: Ideals of Perfections
- Religion 209 The Sage, the Way and Zen
- Religion 213 Judaism and Islam
- Religion 215 Paul and Early Christian Theology
- Religion 223 Pilgrimage: The Center Out There
- Religion 233 The Sufi Way
- Religion 234 Indo-Tibetan Religious Thought (through 1984-85.)
- Religion 237 The American Puritan Tradition
- Religion 303 Kierkegaard and Hegel
- French 404 Albert Camus
2) History of Ideas

Art, Science, Literature and the History of Ideas

Art 247 Art and Science in the Renaissance (Deleted 1985-86.)
Art 442 Art and Science
Classics 101, 102 Classical Literature
Classics 104 Greek Mythology
English 220 Introduction to Afro-American Writing
English 301 The Middle Ages to the Enlightenment
English 302 The Enlightenment to the Early Twentieth Century
English 304 Dante
English 307 Arthurian Literature
English 373 Modern Critical Theory
English 375/Comparative Literature 301 Critical Skirmishes: Topics in the History of Literary Theory
English 377 The Female Body of Imagination
German 201 German Greats 1740-1848
German 202 German Greats 1848-1980
German 204 Nietzsche, Bismarck, Fontane, 1870-1889
History/American Studies 319 Technology and American Culture, 1893 to the Present
History 347 The Renaissance (ca. 1350-1520)
History of Science 213 Evolution: The History of an Idea
History of Science 246 Styles of Scientific Thinking in the European Tradition (Deleted 1985-86.)
History of Science 305 Technology and Culture
History of Science/English 342 American Literature and the History of Science
History of Science 353 Experiment in Scientific Argument: From Antiquity to the Early Modern Period (Deleted 1985-86.)
Mathematics 381 History of Mathematics
French 205 History and the Novel
French 303 The Novel, From Gide to Camus
French 404 Albert Camus
Russian 203 The Russian Revolution in Literature
Russian 210 The Russian Literary Intellect
Spanish 205 The Latin American Novel in Translation

3) History of Social and Political Thought

Anthropology 314 Theory and Method in Anthropology
Economics 312 Markets and Morals
Economics 394 History of Economic Thought
History 224 Women in Western Culture
History 361 Western Political Thought in Transition (Deleted 1985-86.)
History 369 Studies in the History of Thought (Deleted 1985-86.)
History 375 Pathways to Utopia: Russian Radical Thought and its Critics from Herzen to Lenin
Political Science 234 The Idea of Freedom (Deleted 1985-86.)
Political Science 235 Conservatism in Modern Political Thought
Political Science 236 Political Thinking About Women
Political Science 238 Democratic Theory
Political Science 332 Third World Political Theory (Deleted 1985-86.)
Political Science 336 The Social and Political Philosophy of Marxism
Political Science 338 American Legal Philosophy
Political Science 403 Seminar in Political Philosophy
Sociology 208 Sociology of Religion
Sociology 306 (formerly 2015) Conflict, Crisis and Change in Western Social Thought
Women's Studies 101/Philosophy 107 Introduction to Feminist Thought

HIDS 401 Seminar: Interpretation and the Human Sciences (Same as Political Science 339)

The seminar will explore recent disputes about the contribution of hermeneutic philosophy to the activity of interpreting received texts and the clarification of the human
History of Ideas, History of Science

sciences. The inquiry will begin with an examination of Hegel's analysis of the relationship between philosophy and history and proceed to a consideration of contemporary thinkers such as Gadamer, Habermas, Derrida, Foucault, Strauss, Skinner, Pocock and Taylor. Among the topics that will be discussed are the following: the nature and conditions for the possibility of historical understanding; validity in interpretation and the author's intention; the text and the boundaries of its context; the interpretive circle; hermeneutical nihilism and the authority of traditions; and hermeneutics and the critique of ideology.

Prerequisite, permission of the instructor.

Hour

HIDS 493-W31, W31-494 Senior Thesis
To be taken by candidates for honors in the History of Ideas.

Each year the History of Ideas Program sponsors a series of four or five public colloquia focussed on a common theme. Theme for 1985-86: The Idea of Critique.

HISTORY OF SCIENCE (Div. II & III)

Chair, Professor Donald deB. Beaver

Professors: D. Beaver, Vankin.


A major in the History of Science is not offered. Courses in the History of Science are designed primarily to complement and strengthen work in other major fields. Any of these courses may be taken separately, but their value will be enhanced if studied in conjunction with related courses in other departments.

The following will serve as examples: the 201 course constitutes an introduction to science-technology studies, and concentrates on key aspects of contemporary science and technology relevant to many issues of living in a technological society; the 208 course provides a basic background in the history of science and technology, useful in many fields, from the humanities to the sciences. History of Science 213 is related to courses in modern European History, History of Ideas and History of Philosophy. History of Science 201 and 305 offer materials which support work in a wide variety of fields: environmental studies, political science, history, philosophy and the sciences. History of Science 240 complements offerings in American History and American Studies; the 312 course provides a thorough introduction to the revolution in modern biology and its social implications of particular relevance to Biology, but of general interest to all.

HSCI 131 Computers and Society (Same as Computer Science 131)

This course examines the basic concepts and issues of computer usage which are necessary to make informed judgments about computer-related developments in modern Western society. Students learn to program in BASIC on microcomputers. In addition, the course surveys computer hardware, current applications of computer technology and social issues (e.g., data bases and privacy, artificial intelligence, ethical problems). Computer Science 131, 133 and 135 are introductions to computer science. All three courses teach a programming language and describe social issues relating to modern computing technology. Students who are primarily interested in a general overview of processing of information, who are probably not interested in taking more advanced computer science courses, or who are concerned about their problem-solving ability should enroll in Computer Science 131. Students who are interested in a thorough treatment of computer programming details or who are likely to take additional computer science courses should enroll in Computer Science 133 or 135.
Computer Science 131 does not grant Division III credit, nor does it serve as a prerequisite for further computer study. However, sufficiently motivated students may arrange with the mathematical sciences department for a program of study leading them directly into Computer Science 232.

First semester freshmen take this course as History of Science 131.

HSCI 201 Science, Technology and Human Values (Same as Science and Technology Studies 201)
A study of the natures and roles of science and technology in today's society, and of the problems which technical advances pose for human values. An introduction to science technology studies. Topics include: scientific creativity, the Two Cultures, the norms and values of science, the Manhattan Project and Big Science, the ethics and social responsibility of science, appropriate technology, technology assessment, and various problems which spring from dependencies engendered by living in a technological society, e.g., computers and privacy, automation and dehumanization, biomedical engineering. Satisfies one semester of Division II requirement. Open to freshmen.

HSCI 208 From Cuneiform to Computer: Science, Technology and their Cultural Impact
Crucial events in the development of science and technology, from the neolithic revolution to the present. How, when and why they happened and their social significance. A general introduction to the relations between society and its evolving science and technology, designed for both humanists and scientists. Satisfies one semester of Division II requirement. Open to freshmen.

HSCI 209 American Agricultural History (Same as Environmental Studies 209)
(See under Environmental Studies for a full description.)

HSCI 213 Evolution: The History of an Idea
Darwinian evolutionary theory not only brought about a revolution in scientific thought, but also was a paramount challenge to the traditional Christian world view that put man at the summit of God's creation. This course opens with a discussion of the general idea of evolution, followed by a summary of evolutionism in the Enlightenment. The changing view of nature and man and the studies of geology and natural history that preceded and set the stage for Darwin are reviewed. Darwinism, of course, is given lengthy treatment: its origins, the scientific debates it provoked, the religious and moral problems it raised, and its eclipse by later theories about 1890-1910. The evolutionary synthesis of 1930-1950 that resolved the confusion in evolutionary thought of about 1910-1930, by uniting Darwin's natural selection with Mendelian genetics is described, as are the modern debates about evolutionism, especially when the challenges come from within the scientific community. Finally, the social implications of evolutionism, such as social Darwinism, eugenics and, most recently, sociobiology, are discussed. Satisfies one semester of Division III requirement.

HSCI 240 Science and Technology in American Life (Will not be offered 1986-87.)
The historical and social development of science and technology in the United States, from the colonial period to the present. Particular attention is paid to major scientific and technological achievements, to the social history of the developments which have
led to American's pre-eminence in science, and to the role of technology in changing American culture. Satisfies one semester of Division II requirement.

**HSCI 305 Technology and Culture**

From the Neolithic to the Atomic Age: the role of technology in transforming civilization. An historical inquiry into the nature of technology, its effects upon society, and the social forces which affect its development and diffusion. Particular attention is given to the dynamics of the impact of technology on human values and conduct, especially where subtle and unexpected. Satisfies one semester of Division II requirement.

**HSCI 312 The Biological Revolution: 1944 to Date**

Avery, MacLeod and McCarty's 1944 research paper, the first clear-cut demonstration that DNA provided a chemical basis for biological heredity, may be taken as the starting point of the biological revolution. This course examines the ideas and research of the makers of that revolution, which, within 25 years, had completely reshaped all of previous biological understanding, and continues today in the discoveries which make genetic engineering a reality. We shall read Horace Freeland Judson's *The Eighth Day of Creation*, which interweaves extensive oral history by the researchers with lucid commentary by the author. We shall also evaluate Judson's important insights about the context of scientific activity, including the role and nature of paradigms, the philosophy of science, and the difficulty of defining scientific method. Satisfies one semester of Division III requirement.

**HSCI 497, 498 Independent Study**

COURSES OF RELATED INTEREST
(See respective departmental listings for full description.)

- Art/History of Ideas 247  Art and Science in the Renaissance (Deleted 1985-86.)
- Art 442  Art and Science
- History of Ideas 401/Political Science 339  Seminar: Interpretation and the Human Sciences
- Mathematics 381  History of Mathematics
- Philosophy 227  Philosophy and Technology

**JAPANESE (Division I)**

Co-ordinator, Peter K. Frost

Visiting Bernhard Professor: JORDEN.

**JAPN 101-102 Elementary Japanese**

An introduction to modern spoken and written Japanese. The course will emphasize oral skills in the fall semester and somewhat more reading and writing in the spring. The class will meet five times per week, with additional tutorial sessions scheduled to meet individual student needs. A Winter Study Sustaining Program will not be required.
JAPN 206  Language and Culture (Same as Anthropology 206)  
This course considers the ways in which the cultures of Japan and the United States are reflected in their languages. Some literature and film as well as more standard linguistic works will be used to discuss such issues as gender relations, family life and patterns of authority. No prior knowledge of Japanese will be assumed.  
Open to freshmen.  
Hour  

JAPN 497, 498  Independent Study  
Students who have completed more than one year of Japanese are urged to consult Professor Frost for details.  
Hour  

JEWISH STUDIES  
Williams offers no formal program in Jewish Studies, but students interested in the subject should note the following individual course offerings that pertain to it. (See respective departmental listings for the full description.)  

Critical Languages 201-202  (Hebrew offered if tutor available)  
English 344  Imagining American Jews  
Religion 201  The Jewish Bible/Old Testament  
Religion 231  Introduction to Judaism  
Religion 232  Modern Jewish Thought  
Religion 235  Women in Patriarchy: The Jewish Experience  

COURSES OF RELATED INTEREST  
(See respective departmental listings for full description.)  

Economics 227  Economics of the Middle East  
Religion 203  Moses, Jesus, Muhammad  
Religion 205  Religion and Modern Secularism  
Religion 211  Anti-Semitism, Misogyny and Racism (Deleted 1985-86.)  
Religion 213  Judaism and Islam  
Religion 226  Esotericism and Revolution (Deleted 1985-86.)  
Religion 234/Political Science 340  Religion and Law  

LINGUISTICS  

LING 101(S)  Introduction to Linguistics  
This course, presuming no previous study of linguistics, will be an inquiry into the nature of language and its scientific study. We will discuss the goals and methods of linguistics and its relationship to other disciplines. The principles used in analyzing the systems of sounds, grammatical forms and syntactic units found in language will be introduced. Historical linguistics, the study of changes undergone by language in the course of time, will be discussed.  
This is a lecture/discussion course with a midterm and final exam. In addition, students will be required to do some work on a linguistic topic (in the broadest sense of the word) of interest to them. This work may be done within a small discussion group or as an individual project.  
Hour  

Singleton
MATHEMATICAL SCIENCES (Div. III)
Departmental Staff for 1985-86

Chair, Professor Robert M. Kozelka
Acting Chair, Professor Guilford L. Spencer


MAJOR PROGRAM

Sequence Courses
Mathematics 108 Multivariable Calculus
Computer Science 135 Introduction to Computer Science
Mathematics 151 Discrete Mathematics
Mathematics 211 Linear Algebra
Mathematics 301 Real Analysis
Mathematics 311 Abstract Algebra I
Mathematics 401 Senior Major Course

Elective courses and projects
Three one-semester courses from among mathematics courses numbered 240 or above, of which at least one must form, with a sequence course or with another elective, an appropriate year sequence approved by the department. Two courses in computer science, of which one must be numbered 330 or above, may be substituted for one of the elective courses in mathematics.

Satisfactory participation by senior majors in the Senior Colloquium.

It is recommended but not required that one Winter Study Project offered by the department for majors be taken during the junior or senior year.

Variations in the sequence courses, adapting the program within the general course requirements to special needs and interests of the individual student, may be arranged in consultation with the department.

Students interested in attending graduate school or pursuing a career in mathematics are urged to take more upper division mathematics and computer science courses beyond those required for a minimum major.

THE DEGREE WITH HONORS IN MATHEMATICAL SCIENCES

The degree with Honors in Mathematics is awarded to a student who has demonstrated outstanding intellectual achievement in a program of study which extends beyond the requirements of the regular major. The principal consideration in recommending a student for the degree with Honors will be: Mastery of core material and skills, breadth and, particularly depth of knowledge beyond the core material, ability to pursue independent study of mathematics, originality in methods of investigation and, where appropriate, creativity in research.

Prospective Honors students are urged to consult with their departmental adviser at the time of registration in the spring of the sophomore or at the beginning of the junior year to arrange a program of study that could lead to the degree with Honors. Such a program normally comprises coordinated study involving a regular course, and independent study, undertaken during a regular semester and a Winter Study period. The study culminates in a significant piece of written work and an oral exposition. A major paper of an expository nature, original research, successful completion of appropriate examinations of the Society of Actuaries or a major computer project are examples of acceptable culminating written work.
If the program chosen consists of two independent study courses and one WSP independent study, the culminating written work should be a formal bound thesis.

Formal admission to candidacy is based on promising performance in the first two of the three units of study in the Honors program. Recommendations for the degree with Honors will be made for outstanding performance in the three Honors courses. Highest honors will be recommended for students who have displayed exceptional ability, achievement or originality.

ADVANCED PLACEMENT

The Mathematical Sciences Department attempts to place each student who elects a mathematics course in that course best suited to the student's preparation and goals. A freshman enrolling in Williams College is asked to complete a questionnaire with the help of the student's secondary school mathematics teacher, indicating the mathematical material covered by the student and the level of sophistication of the student's previous mathematical experience. The student is placed in the appropriate mathematics course determined by the results of the questionnaire, the results of the Advanced Placement Examination (AB or BC) if the student took one, and any additional available information. A student who receives a 4 or 5 on the BC examination and elects to continue the calculus is ordinarily placed in Mathematics 108 with credit given for Mathematics 107. A student who receives a 3 on the BC examination or a high grade on the AB examination and whose high school training indicates adequate preparation will receive credit for Mathematics 107 if he or she elects Mathematics 108 and completes it with a grade of C− or better. In any event students registering for mathematics courses are urged to consult with members of the department concerning appropriate courses and placement. The department reserves the right to place students at that point in the calculus sequence which is appropriate to their previous preparation.

Students interested in majoring in either mathematics or computer science should be aware that Mathematics 108 and 151 may be taken in either order. Mathematics 151 is a required course in both majors, as is Computer Science 135. First semester freshmen are not allowed to enroll in computer science courses. Therefore, although Mathematics 108 may seem to be a natural progression from a secondary school course in calculus, it may be worthwhile to consider electing Mathematics 151 in the first semester. Again, consultation with members of the department is recommended.

GENERAL REMARKS

Divisional Requirements

All courses listed may be used to satisfy this requirement unless otherwise indicated.

Alternate year courses

Courses numbered 241, 242, 302, 306, 313, 314, 315, 324, 325, 330, 331, 351, 352, 360, 371, 373, 375, 381, 432 and 434 are each normally offered once every two years. All other courses are normally offered every year.

Course Numbering

Courses numbered 200 and above are normally open to all students meeting the prerequisites. Students with questions about the level at which courses are conducted are invited to consult members of the department.

Course Descriptions

Descriptions of the courses in computer science are under that heading. More detailed information on all of the offerings in the Department is available in the Informal Guide to Courses in Mathematical Sciences that can be obtained at the departmental office.

Courses open on a pass/fail basis

Students taking a mathematics course on a pass/fail basis must meet all the requirements set for students taking the course on a graded basis.
Mathematical Sciences

With the permission of the department, any course offered by the department may be taken on a pass/fail basis. Permission will not be given to mathematics majors to meet any of the requirements of the major or honors degree on this basis. However, with the permission of the department, courses taken in the department beyond those requirements may be taken on a pass/fail basis.

Graduate School Requirements

There are an increasing number of graduate and professional schools that require mathematics as a prerequisite to admission or to attaining their degree. Students interested in graduate or professional training in business, medicine, economics or psychology are advised to find out the requirements in those fields early in their college careers.

[MATH 105 Mathematical Modeling (Not offered 1985-86.)]

Many real-world problems can be “modeled” using only elementary algebra and geometry. Some of the problems examined are: the elusive map coloring conjecture (finally established in 1976), the “instant insanity” puzzle, sanitation truck routing and elementary economic decision making. One of the results of this study is an understanding of elementary graph theory, game theory and other combinatorial techniques involved in this non-calculus type of mathematical thinking.

Credit will not ordinarily be given for this course to students who have previously received credit for Mathematics 108 or equivalent.

Hour

[MATH 106 Introduction to Linear Algebra (Not offered 1985-86.)]

An introduction to linear algebra recommended for students interested in the social sciences. Topics include matrices, vectors, transformations, linear equations, determinants and linear programming.

Credit will not ordinarily be given for this course to students who have previously received credit for Mathematics 108 or equivalent.

Hour

MATH 107(F,S) Introduction to Calculus

Functions, graphs, continuity. Derivatives and applications. Area and integration. Exponential, logarithmic and trigonometric functions.

Prerequisite, Quantitative Studies 100 (or demonstrating basic proficiency in diagnostic test—see Quantitative Studies).

NOTE: Students who have had less than one full year of calculus in high school should enroll in the sections which meet four times a week.

Hours 107(F) 107(S)

First semester: Adams, O. Beaver, Farrell, Spencer

Second semester: Adams, Bergstrand

MATH 108(F,S) Multivariable Calculus

Continuation of Mathematics 107. Techniques of integration; Taylor expansions; vector and analytic geometry in two and three dimensions; partial derivatives, multiple integrals.

Prerequisite, Mathematics 107 or equivalent.

Hours 108(F) 108(S)

First Semester: Bergstrand, Farrell, Levine

Second semester: Farrell, Spencer

Computer Science 131 Computers and Society (Same as History of Science)

(See Computer Science, and for complete description, see under History of Science 131.)

Computer Science 133(F,S) Introduction to Programming

(See under Computer Science for full description.)

Computer Science 135(F,S) Introduction to Computer Science

(See under Computer Science for full description.)
MATH 140  Calculus and Statistics
Elementary probability models, including continuous models derived from calculus
considerations. Theory of statistical inference by integration and normal curve properties.
The relationship between estimation and tests of hypotheses. Elementary bivariate
probability: discrete and continuous random variables.
Prerequisite, Mathematics 107.
Not open for major credit to junior or senior mathematical sciences majors.

MATH 151(F,S)  Discrete Mathematics
As a complement to the calculus, which is the study of continuous processes, this
course focuses on the discrete: finite sets and their interrelations and applications. Topics
will include set theoretic ideas, counting, logic, recursion, lattices, abstract graphs,
boolean algebras.
Prerequisite, Mathematics 107.
Hours 151(F) 151(S)
First semester: BRUCE
Second semester: BERGSTRAND, GRABOIS

MATH 210  Applied Mathematics for Scientists (Same as Physics 210)
(See under Physics for full description.)

MATH 211(F,S)  Linear Algebra
Geometric vectors, linear equations, vector spaces, linear independence and bases.
Linear transformations, matrices and determinants. Inner products.
Prerequisite, Mathematics 108 or 151.
Hour 211(F) 211(S)
First semester: ADAMS
Second semester: O. BEAVER

Computer Science 235(F,S)  Principles of Computer Science
(See under Computer Science for full description.)

Computer Science 236  Computer Organization
(See under Computer Science for full description.)

[MATH 241 Intermediate Statistics (Not offered 1985-86.)
Tests of statistical hypotheses, with emphasis on small-sample tests from normal
populations: t-test, chi-square. Contingency tables and other nonparametric tests. Ap­
plications directed towards the behavioral sciences.
Prerequisite, Mathematics 140.
Hour
]

[MATH 242 Random Processes (Not offered 1985-86.)
The study of probability situations which change over time. Some of the classical
probabilistic models which have been used in psychology, biology, economics and trans­
portation: queueing theory, birth and death processes, waiting times, Markov chains.
Prerequisite, Mathematics 108 or 140.
Hour
]

MATH 301  Real Analysis
The real and complex number systems. Elementary topology of the real line and
plane. Functions of a single variable: limits, continuity, differentiability, the Riemann
and Riemann-Stieltjes integrals. Sequences, series and uniform convergence.
Elementary topology of metric spaces and functions on metric spaces with emphasis on
R^n.
Prerequisites, Mathematics 211 and 151.

O. BEAVER
MATH 302  Complex Analysis (Will not be offered 1986-87.)
Analytic functions: Cauchy-Riemann equations, Cauchy's integral theorem and its
consequences, Taylor series and Laurent series. Applications, including some of
the following: calculus of residues, conformal mapping, harmonic functions and boundary
value problems.
Prerequisite, Mathematics 301.

Hour

[ MATH 306  Differential Equations (Not offered 1985-86.)
An introductory study of both ordinary and partial differential equations. Existence,
uniqueness, properties of solutions, as well as consideration of methods of solution.
Prerequisite, Mathematics 301.

Hour

MATH 311  Abstract Algebra I
Groups: normal subgroup, factor group, homomorphism, isomorphism.
Rings: ideal, quotient ring, polynomials, integral domain.
Fields: algebraic and transcendental extensions, introduction to Galois Theory.
Prerequisites, Mathematics 151 and 211.

Hour

[ MATH 313  Elementary Number Theory (Not offered 1985-86.)
Divisibility properties of the integers; prime and composite numbers. Congruence
modulo n; solutions of linear and quadratic congruences and of some Diophantine
equations. The distribution of primes. Problems in additive arithmetic and discussion of
some famous unsolved problems.
Prerequisite, Mathematics 211.

Hour

[ MATH 314  Abstract Algebra II (Not offered 1985-86.)
Continuation of Mathematics 311. Field theory: algebraic and transcendental exten­
sions, automorphism, finite field, Galois Theory. Other topics chosen from advanced
linear algebra, Lie Algebra Theory or representations and characters.
Prerequisite, Mathematics 311.

Hour

MATH 315(S)  Groups and Characters (Will not be offered 1986-87.)
Group theory with emphasis on topics having applications in the physical sciences
and with greater attention to examples than to proofs. Symmetry groups, group structure,
representations and characters over the real and complex fields, space groups (chemistry),
matrix groups (physics).
Prerequisite, Mathematics 211.

Hour

MATH 324  Topology (Will not be offered 1986-87.)
General spaces and the notions of continuity, connectedness, compactness. Metric
spaces. Introduction to homology and homotopy.
Prerequisite, Mathematics 301.

Hour

MATH 325  Topics in Geometry (Will not be offered 1986-87.)
Selected topics from projective geometry, geometric algebra, non-Euclidean geometry,
Hilbert's axiomatic development of Euclidean geometry.
Prerequisite, Mathematics 211.

Hour
MATH 330 Numerical Analysis
Solution of non-linear equations and linear systems, interpolation and approximation, numerical differentiation and integration, with attention to error analysis and efficiency of algorithms.
Prerequisites, Mathematics 211 and Computer Science 135.

SPENCER

[Computer Science 331 Programming Languages (Not offered 1985-86.)]
(See under Computer Science for full description.)

[MATH 351 Decision Theory (Not offered 1985-86.)]
Mathematical rules for and consequences of making decisions under various conditions: certainty, risk (known probabilities of outcomes), uncertainty (unspecified probabilities of outcomes). Linear programming and game theory, principally in matrix form, as examples of the first situation; duality between them. Utility theory of von Neumann as an example of the second; quantification of non-numeric prospects. Prior probabilities as an example of the third; how to modify guesses on the basis of data. Emphasis on discrete problems.
Prerequisite, Mathematics 211.

HOUR

[MATH 352 Combinatorics (Not offered 1985-86.)]
A study of the properties and characterizations of configuration of points and lines. Graphs, trees, criteria for planarity and map coloring will be considered, as well as applications in the physical and social sciences. The theory will be developed with an emphasis on independent work and problem solving.
Prerequisite, permission of the instructor.

HOUR

Computer Science 355 Algorithms
(See under Computer Science for full description.)

MATH 360 Mathematical Logic (Will not be offered 1986-87.)
Propositional predicate logic. Investigations of the correspondence between mathematical truth and provability. Soundness completeness and compactness theorems. Introduction to Gödel incompleteness and its philosophical consequences. Discussion of automated theorem proving and applications to artificial intelligence.
Prerequisite, Mathematics 151 or 202.

BRUCE

Computer Science 371 Computer Graphics (Will not be offered 1986-87.)
(See under Computer Science for full description.)

Computer Science 373 Artificial Intelligence (Will not be offered 1986-87.)
(See under Computer Science for full description.)

[Computer Science 375 Data Base Systems (Not offered 1985-86.)]
(See under Computer Science for full description.)

[MATH 381(S) History of Mathematics (Not offered 1985-86.)]
A survey of the development of mathematical thought from ancient times to the present, with some consideration of its place in political, social and intellectual history. Assigned problem studies will explore historical methods of solution, famous mathematical questions, the work of individual mathematicians and the rise of various branches of mathematics.
Prerequisite, Mathematics 211.

HOUR

V. HILL
Mathematical Sciences, Medieval Studies

MATH 397, 398, 497, 498 Reading
Directed independent reading in Mathematics.
Prerequisite, permission of the department.

MATH 401 Senior Major Course
The purpose of the course is to emphasize the unity and power of mathematics by studying in depth a particular area of mathematics. The content will be chosen to draw as widely as possible upon the backgrounds of the participants and to illustrate a variety of applications. The exact topics to be covered will be decided by consultation among staff and students.
Required of senior Mathematical Sciences majors.
Prerequisite, permission of the department.
Hour

Computer Science 431 Theory of Computation
(See under Computer Science for full description.)

Computer Science 432 Operating Systems (Will not be offered 1986-87.)
(See under Computer Science for full description.)

[Computer Science 434 Compiler Design (Not offered 1985-86.)]
(See under Computer Science for full description.)

MATH W30 Senior Project
Normally to be taken by candidates for honors in Mathematics other than by thesis route.

MATH 493-W31-494 Senior Honors Thesis

Senior Colloquium
Required of senior majors in the mathematics route. Meets every week for one hour both fall and spring.
Hour

MEDIEVAL STUDIES

Williams offers no formal program in Medieval Studies, but students interested in the subject should note the following individual course offerings that pertain to it.
(See respective departmental listings for the full description.)

Art 236 Early Medieval Art
Art 336 Romanesque and Gothic Art (Deleted 1985-86.)
Art 342 Renaissance Art in Italy
English 303 Introduction to Old English
English 304 Dante
English 305 Chaucer
English 307 Arthurian Literature
German 201 German Greats 1740-1848
German 302 Literature of the High Middle Ages
History 204 The Making of Europe: 300-1300
History 347 The Renaissance (ca 1350-1520)
History 361 Western Political Thought in Transition (Deleted 1985-86.)
History of Ideas/Art 247 Art and Science in the Renaissance (Deleted 1985-86.)
Music 209  Medieval and Renaissance Music
Music 301  Music in History I
Religion 202  Christian Tradition
Romance Languages 302  Introduction to Romance Linguistics
Spanish 304  Spanish Literature of the Middle Ages and Renaissance

COURSES OF RELATED INTEREST
(See respective departmental listings for full description.)

Art 343  Italian Art: 1500-1600
Classics 101, 102  Classical Literature
Classics 104  Greek Mythology
English 301  The Middle Ages to the Enlightenment
English 313  Renaissance Love Stories
English 314  Renaissance Drama
English 315  Milton and the Bible
English 317  Elizabeth and the Elizabethans
History 216  Greek History
History 218  Roman History
History 309  Catholic, Protestant, Puritan in the Age of Reformation (Deleted 1985-86.)
History 323  Tudor and Stuart England, 1485-1714
History of Ideas 101  The Greek Idea of Human Excellence (Deleted 1985-86.)
Mathematics 381  History of Mathematics
Philosophy 202  Greek Philosophy
Political Science 231  Ancient and Medieval Political Philosophy
Religion 203  Moses, Jesus, Muhammad
Religion 204  The New Testament
Religion 230  The Many Forms of Jesus

MUSIC (Div. I)
Departmental Staff for 1985-86

Chair, Professor DOUGLAS B. MOORE

Professors: D. MOORE, ROBERTS, SHAINMAN. Visiting Professor, SUDEBURG. Assistant Professor: ENNIS-DWYER. Visiting Associate Professor: KAZADIŞ. Lecturer: HEGYI.

MAJOR PROGRAM
Sequence courses
Music 103-104  Music Theory and Musicianship I
Music 201-202  Music Theory and Musicianship II
Music 301, 302  Music in History I (Medieval and Renaissance Music) and Music in History II (independent study and advanced work as part of one of the other "period" courses: Music in the Baroque Era or Music in the Classic Era or Music in the Romantic Era.)
Music 401  Senior Seminar in Music

Parallel courses
An additional year course or two semester courses in Music. The student is especially encouraged to enroll in those courses which will develop his critical skills in analysis and creative work in music, including independent study with one or more members of the faculty (See descriptions for Music 203, 204, 303, 325, 326, 425, 426.) It is required that music majors participate in departmental performance groups for four semesters or more. The student must petition to meet the requirements in an alternative way.
Music

THE DEGREE WITH HONORS IN MUSIC

The degree with Honors in Music may be awarded to a student who has exhibited outstanding work in any one or more of the following areas:

I. Thesis—in either of two specializations:
   a) Music History and Literature
   b) Composition or Theory and Analysis
      (The student should elect Music 203, 204, 325, 326 and 493-W31, W31-494)

II. Elective Courses plus "Mini-Thesis"
    (A program of courses plus a thesis program of one semester and a WSP)

III. Performance
    The demonstration of an outstanding performing ability within group musical activities sponsored by the college as well as by individual performances. Such students are encouraged to elect individual private instruction and/or Music 325, 326, 425, 426. Both the group and individual participation must have taken place throughout the student’s entire Williams collegiate experience.

These criteria are to form the basis for both an acceptance of candidacy and for the awarding of the degree after a re-examination which is to include additional and concluding work done by the student in the second semester of his senior year. The examination of credentials and final decisions for the degree with honors are to be made by members of the department.

There are three introductory courses in music at Williams College. The student is urged to read the descriptions of Music 101, 102 and 103-104 and to consult the instructors to determine which course will best assist his or her growth in understanding music.

MUS 101(F,S)  Listening to Music: An Introduction

Music as a means of human expression will be explored through a study of the major musical style periods and their representative composers from the Baroque through the twentieth century. This will be facilitated by an initial, non-technical investigation of the terms and concepts basic to music, such as rhythm, melody, harmony, tone color, form and structure.

(It is no longer necessary for students to take a follow-up music literature course to receive credit for Music 101, since it is no longer a hyphenated course. It is strongly suggested, however, that the student consider a second course in music, by enrolling in Music 106 through Music 127, to carry on the more strictly historical study of a selected area of music, and to refine the listening skills acquired in Music 101.)

Three lectures. No Prerequisite. Music 101(F) or (S) is not open to those students who have completed 103-104, but is open to those who have completed 102F.

Hours 101(F)  First semester: D. MOORE, KAZADI
101(S)  Second semester: D. MOORE

MUS 102(F)  The Language of Music: An Introduction

Intended for the non-major who is interested in aspects of musical notation and analysis.

This course is designed for those with little or no music literacy, those who want to obtain the basic skills of pitch and rhythmic notation. It will focus on: 1) the relationship of note names and clefs to the piano keyboard; 2) the concepts of scales, intervals, keys and chords; 3) the notation of conventional rhythms and meters; and 4) elementary principles of musical form.

Listening assignments will be made as a means of illustrating the above conventions, but the course makes no attempt to provide a survey of musical styles; for that the student should elect Music 101. Likewise, for the purposes of demonstration, music notation will be performed as a class by singing or clapping rhythms, but students will not be evaluated on the basis of their musicianship skills; for that the student should elect Music 103-104.
Music 102 is not open to those students who have completed Music 103 or 103-104, but is open to those who have completed 101.

**MUS 103-104  Music Theory and Musicianship I**

This course is designed for potential music majors and highly qualified singers and instrumentalists.

Equal emphasis is placed on reading and writing music in the “Common Practice” or tonal idiom.

The first half of Music 103 is devoted to a fast-paced introduction to pitch and rhythmic notation, intervals and triads. The remainder of Music 103 and 104 emphasizes the development of a working knowledge of harmonic progression, triad inversion, “voice-leading” and treatment of dissonance, elementary modulation and the analysis of formal design in single movement compositions.

“Musicianship Skills”, taught concurrently with written theory, will embrace: ear training (rhythmic, melodic and harmonic dictation), sight singing and keyboard harmony. Students are required to attend a weekly “Skills” laboratory session to develop these skills.

Students with advanced placement credit or the equivalent will be permitted to go directly into 201-202.

Credit will not ordinarily be given for both Music 101 and 103-104 or 102 and 103-104.

**NOTE:** Prerequisites for Music 106 through 127

For each course, varying degrees of musical experience are necessary. Students may consult with the instructor or simply attend the first class meeting. (Successful completion of Music 101 automatically qualifies the student for Music 106 through 127.)

**MUS 106  The Opera (Will not be offered 1986-87.)**

The development of opera from 1600 to the present, covering such masters as Monteverdi, Lully, Scarlatti, Gluck, Mozart, Rossini, Verdi, Bizet and Wagner. Emphasis on listening and cultural history. Short paper required.

**MUS 107(S)  Verdi and Wagner (Not offered 1985-86.)**

A study of the major works of these two nineteenth century masters of opera. Emphasis on listening and research projects. Short paper required.

(Recommended to follow Music 106.)

**MUS 108  The Symphony**

A study of symphonic development as observed in the eighteenth century and through the works of Haydn, Mozart, Beethoven, Berlioz, Brahms, Tchaikowsky and others. Emphasis on score reading and listening.

**MUS 109  The Concerto (Not offered 1985-86.)**

An investigation of the concerto as performed in the international concert halls of today and how this concerto form emerged from the seventeenth century. Emphasis is on listening as a means of permanent identification of a list of works currently in performance, together with concert attendance and research projects.
Music

[MUS 110  Chamber Music (Not offered 1985-86.)]
A study of chamber music, trios, quartets, quintets, as performed world-wide today. Emphasis is on listening and identification of works currently in repertoire, from the eighteenth century to the present, in conjunction with concert attendance and research projects. 
Hour

Hegyi]

MUS 111(S)  Music for the Piano (Will not be offered 1986-87.)
A survey of the major works for keyboard from the seventeenth century to the present, including those by Bach, Beethoven, Mozart, Chopin, Schumann, Brahms, Debussy and Ravel. Emphasis on listening. No ability at the keyboard is required.
Hour

Ennis-Dwyer

[MUS 112(F)  Choral Music (Not offered 1985-86.)]
A survey of the major works for chorus, from the mid-eighteenth century to the present. Works include Mozart Requiem, Haydn Creation, Brahms German Requiem and others by Berlioz, Elgar, Vaughan Williams and so forth. Listening and analysis. A short paper is required.
Hour

Roberts

[MUS 114  American Music (Not offered 1985-86.)]
A survey of musical development in this country from the seventeenth century psalters and eighteenth century New England tunesmiths through the genteel tradition, the rise of jazz, and the growth of art-music from the Boston academic tradition to the major American composers of the twentieth century.
Hour

Roberts

[MUS 116  Music Since 1945 (Will not be offered 1986-87.)]
Boulez and Stockhausen consider the year 1945 to be the year 0 in music. The course will survey the musical styles discovered as the Western World recovered from the shock of World War II and will examine in detail the experiments of innovative composers in both Western and Eastern Europe and in the Americas up to the present time. Opera, chamber music, choral and orchestral writing will be considered in addition to the newer multimedia forms involving theatre, art, mathematics and the happening. Concerts, lectures, listening assignments and a project (which might be a musical composition) will involve the student in this period and material.
Hour

Roberts

[MUS 117  Mozart (Not offered 1985-86.)]
A study of representative works combined with investigation of the man and the music world of his time. Emphasis on listening, concert attendance and study of performance practices of his music in today's concert halls.
Hour

Hegyi]

[MUS 118  Bach (Not offered 1985-86.)]
A study of representative works, both vocal and instrumental, from the variety of Bach's genius. Emphasis will be on listening; limited analysis or research projects may be assigned.
Hour

D. Moore]

MUS 120(F)  Beethoven (Will not be offered 1986-87.)
A consideration of selected compositions from each of Beethoven's creative periods. Special emphasis will be placed on the piano sonatas, the string quartets, “Fidelio,” and
the Ninth Symphony. The course will examine Beethoven's music in its historical context and evaluate the changes brought about by his art.

**Music**

**Hour**

[MUS 122(F) Afro-American Music (Not offered 1985-86.)]
This course is designed to trace the historical development of Afro-American music from its African beginnings to the present day. Through the use of live performances, as well as recordings, slides, film and tapes from field trips, the student will be introduced to Afro-American music throughout the African diaspora; this will include Latin America and the Caribbean in addition to the United States. Afro-American folk, popular and art music will be explored.

**Hour**

[MUS 123 Introduction to Electro-acoustic Music (Not offered 1985-86.)]
This course will be an historical survey of one of the most rapidly developing art forms of the twentieth century. Relevant aspects of acoustics, psycho-acoustics, aesthetics, major composers, schools of composition and basic techniques of sound recording and synthesis will be discussed and demonstrated. The course will begin with the early experiments of 1948 and culminate in live demonstrations of “state of the art” digital technology.

No prerequisite, no musical or technical expertise is assumed.

**Hour**

[MUS 124 Elementary Exercises in Electronic Music (Not offered 1985-86.)]
The course will consist of short exercises in 1) the operations of the recording facility, tape manipulation techniques and special effects; 2) basic functions of the Serge Modular Synthesizer, and the modifications of acoustic instruments; and 3) elementary functions of the Synclavier II Digital Synthesizer. This is a foundation course for advanced work in electronic music composition.

Prerequisite, Music 123 and permission of the instructor.

(Related follow-up courses, Music 203, 204, 325, 326, 425, 426.)

**Hour**

[MUS 125 Musical Cultures of the World (Will not be offered 1986-87.)]
A survey of musical expressions, musical instruments and dance styles in major culture areas of the world: Africa, Americas, Asia, Europe and Oceania. Attention will be given to culturally defined non-musical phenomena: social structure, history, language, environment, etc., which determine the stylistic uniqueness of each culture area. Classroom lectures will be enhanced with oriented listening, film viewing and live performances by traditional artists.

**Hour**

MUS 127 Mahler and His Era (Will not be offered 1986-87.)
An examination of the music of Gustav Mahler and of the period between 1870 and 1914, that era of the “end of time”, and of the musical culture of that time, including Strauss, Elgar, Rachmaninoff, Scriabin, in contrast to Mahler. Requirements, a short paper and some brief oral reports to the class will be required.

**Hour**

MUS 201-202 Music Theory and Musicianship II
Music 201 will be a study of music theory of the latter “common-practice” period (1750-1900), emphasizing the analysis and writing of music containing chromatically altered chords, extended tertian sonorities and advanced modulations. The effect of chromatic harmony on musical form will be studied and selected works analyzed. The course will also cover harmonic practices of the late Renaissance, i.e., the transition from modal to tonal harmony.
Music

Music 202 will be a study of music theory in transition from the tonal to the modern period (Wagner to the avant-garde). Major theories of composition will be discussed, emphasizing aural analysis and written illustration.

Advanced ear training, sight singing and keyboard demonstration of harmonic concepts will be integrated into both semesters.

(To obtain credit, students are required to attend a three-hour “Skills” laboratory session, to meet weekly.)

Prerequisite, Music 103-104 or permission of the instructor.

Hour

ENNIS-DWYER

MUS 203, 204 Composition

This is a beginning course in free composition meeting twice weekly: a private lesson (by appointment) which deals with the student's own creative projects (for acoustic and/or electronic media) and a master class covering topics such as contemporary compositional technique, aural analysis of twentieth century music and current trends and aesthetic questions. Each student is expected to arrange for the performance of his or her work(s) at least once a year.

Prerequisite, Music 103-104. Music 124 is needed as a prerequisite for electronic music composition. (Related courses, Music 325, 326, 425, 426, 493-W31, W31-494.)

Hour

SUDERBURG

MUS 209 Medieval and Renaissance Music (Not offered 1985-86; to be offered fall 1986-87.)

A survey of the musical culture in western Europe from the monophonic repertoires of the early Christian church through its development within polyphonic compositions and the increasing growth of secular forms of music. Special emphasis will be placed upon individual reports and class projects, including a Collegium Musicum, which bring to life some of the vitality of that musical culture.

Prerequisite, Music 101 and a second music literature course or Music 103-104. Students may not receive credit for both Music 301 and 209.

Hour

ROBERTS

MUS 210(F) Music in the Baroque Era (Will not be offered 1986-87.)

An examination of European music from the late-sixteenth century to mid-eighteenth century, showing contrasts between the musical styles of the late Renaissance and the new Baroque era. Special emphasis will be placed on listening, with individual research projects.

Prerequisite, Music 101 and a second music literature course or Music 103-104.

Hour

D. MOORE

MUS 211 Music in the Classic Era (Not offered 1985-86.)

An examination of the transition from the Baroque to the Classic style in music; the Rococo style; the Mannheim school; the Classic Symphony, Sonata, Concerto, Chamber Music and Opera; and the lives and music of important composers including Haydn, Mozart and Beethoven. Emphasis is placed upon listening.

Prerequisite, Music 101 and a second music literature course or Music 103-104.

Hour

ROBERTS

MUS 212 Music in the Romantic Era (Will not be offered 1986-87.)

A study of the period in music history beginning with the last works of Beethoven and ending with the year 1900. Emphasis on Schubert, Schumann, Brahms, Wagner and
Music

Tschaikowsky, in addition to examination of the social, political and economic scene. Score reading, listening and research projects. Prerequisite, Music 101 and a second music literature course or Music 103-104.

Hour

[MUS 301] Music in History I (Not offered 1985-86; to be offered fall 1986-87.)

A critical study of Medieval and Renaissance music. This course is a critical study of Medieval and Renaissance Music, and is comprised of independent study and advanced work as a part of Music 209 Medieval and Renaissance Music. Emphasis on listening, performance and individual research projects. Students may not receive credit for both Music 301 and 209.

Required of Music majors.
Prerequisite, Music 103-104. Music 201-202 is also recommended.
(Students with sufficient musical background may, with departmental approval, petition directly into this course without the prerequisite.)

Hour

SHAINMAN

[MUS 302(F,S) Music in History II]

This course is comprised of independent study and advanced work as part of one of the other "period" courses offered by the department (Music 210 Music in the Baroque Era, Music 211 Music in the Classic Era, Music 212 Music in the Romantic Era.)

Required of Music majors.
Prerequisite, Music 103-104. Music 201-202 is also recommended.
(Students with sufficient musical background may, with departmental approval, petition directly into this course without the prerequisite.)

First semester: D. Moore
Second semester: SHAINMAN

Hour

[MUS 303 Counterpoint in Tonal Harmony (Not offered 1985-86.)]

Writing and analysis of counterpoint in the style of J. S. Bach, and the application of similar techniques to the musical style of the Classic-Romantic period. Techniques include: linear implication of harmony, motivic development, free imitation, 2-3 voice invention, invertable counterpoint and 3-4 voice fugue.

Prerequisite, Music 201-202 or permission of the instructor.

Hour

ROBERTS

[MUS 308 Orchestration and Instrumentation (Will not be offered 1986-87.)]

Study of the use of the various standard instruments in orchestral music, including the special capabilities of each and their roles both as solo instruments and in combination. Orchestration of selected works for each family of instruments—[strings, woodwinds, brass]—as well as scoring for full orchestra. Analysis of examples from major orchestral compositions.

Prerequisite, Music 201-202 and some keyboard facility or permission of the instructor.

Hour

SUDERBURG

[MUS 401(S) Senior Seminar in Music]

A detailed consideration of topics in music. The topics covered will vary from year to year, depending on student and staff interest and may, at times, be related to works being performed in live concert at Williams. The course will be taught as a seminar with individual reports forming the core of the discussion.

Prerequisites, Music 103-104, 201-202 and 301, 302.
The completion of an additional analysis course under Music 325, 326, 425, 426 is strongly urged.

Hour

ROBERTS AND OCCASIONAL GUESTS/MEMBERS OF THE DEPARTMENT
MUS 394  Junior Thesis
Independent study in history or theory of music, under the supervision of a member of the department, as preparation for the senior thesis.

MUS 493-W31, W31-494  Senior Thesis
Recommended for honors candidates. Students pursuing I. do full year; students pursuing II. do one semester and a WSP.

MUS 497, 498  Independent Study

SPECIAL STUDIES IN THE MUSICAL ART

MUS 325, 326, 425, 426  Musical Studies
These courses are for work of a creative nature, based upon the talents and backgrounds of the individual student, working under the close guidance of a member of the department to fulfill some project established by the consent of teacher, student and department. The election is utilized to supplement the department’s course offerings, and may include such projects as:
private lessons in composition;
private study in the performance of and literature for the voice, the piano, the organ or an orchestral instrument;
work in music theory (critical methods and analysis, solfeggio, keyboard harmony, ear-training and dictation, counterpoint and orchestration);
coaching, rehearsal and performance in a chamber music ensemble.
The project may be continued by the election of the next-higher numbered course, or at that time the next-higher numbered course may be utilized for work within yet another facet of the musical art. The specific name of the project elected is to be specified after the title, “Musical Studies.”
325, 326 is for juniors or seniors electing Musical Studies for the first time. 425, 426 is for those who have completed Music 325, 326. Prerequisites, Music 103-104, 201-202 and permission of the instructor and department. The student should obtain and complete a special form for this course election, available at the music office, before the beginning of the semester in which they wish to do this course. Additional guidelines for students electing this course for private music lessons are also available at the Department Office. [Intended primarily for music majors.]

PHILOSOPHY (Div. II)
Departmental Staff for 1985-86

Chair, Professor LASZLO VERSENYI

Professors: KARELIS*, LAWRENCE, O’CONNOR, VERSENYI. Visiting Professor: ZEMACH. Associate Professor: TONG++. Assistant Professor: P. LIPTON, Visiting Lecturer: BEARN§.

MAJOR PROGRAM
Requirements
Philosophy 101  Individual and Society
Two courses in the history of philosophy:
Philosophy 202  Greek Philosophy
Philosophy/History of Ideas 203  The Philosophical Reformation (Deleted 1985-86.)
Philosophy 204  History of Philosophy: Locke to Hegel
Philosophy 303  Language and Reality
Philosophy 401  Senior Seminar
Four other electives in philosophy

The program in philosophy is designed to enable the student to think clearly, systematically and independently on philosophical issues and to acquaint the student with the fundamental works in the field. With one or two exceptions, philosophy classes are kept small. Class discussion and the writing of critical papers are stressed.

The courses in the history of philosophy (202, 204) introduce students to the classics of the Western philosophical tradition. Both of these courses have three aims: to understand the meaning of the classic texts in their historical setting, to assess the truth of the claims made in those texts and to find the pertinence of these claims in current philosophical discussion.

Philosophy 303 introduces the student to idioms and techniques which are widely used in contemporary work in philosophy.

THE DEGREE WITH HONORS IN PHILOSOPHY

Two alternative routes are available to those who wish to apply for the degree with honors.

The first of these involves the writing of a senior thesis. During their senior year candidates will be required to devote to their theses two semesters of independent study and the Winter Study Period (493-W31-494). Plans for this route must be approved by the department in May of junior year. In February of senior year the department will review the students' qualifications for honors candidacy to determine whether or not they should continue.

The second route is an intensive pattern of three clearly related courses. Only one of these may be counted in the nine courses regularly comprising the major. Of the additional two semester courses, one will be an independent study course (492) in the spring of senior year, culminating in the writing of a semester essay which synthesizes the work of the three course pattern. Students taking this route will be required to begin work on the project (W30) during the Winter Study Period of senior year. Plans for this route must be submitted for departmental approval by November 1 of senior year. A recommendation for graduation with honors will be made on the basis of the thoroughness, independence and originality of the student’s work.

PHIL 101(F,S)  Individual and Society

This introduction to philosophy focuses on ethical issues such as the nature of justice, the tension between individual fulfillment and social responsibility, freedom and equality, and the origin and meaning of the distinction between good and evil. Students already have opinions about such matters, although often vague and tentative ones. The aim of the course is to clarify and challenge these opinions by a careful consideration of several important classical and modern texts. The emphasis is on arguments, on what philosophers claim to be true, how they justify their ethical convictions, the importance of their disagreements, whether their accounts are coherent and satisfactorily explain our moral experience. The course aims to improve students’ powers of critical thinking; it should also enable them to get a sense of what philosophical activity is. Primary sources are used. Half the semester at a minimum is given to Plato’s *Republic* and Kant’s *Groundwork of the Metaphysics of Morals.*

Enrollment limited to 25 per section.

*Hours 101(F)
101(S)*

PHIL 104  Logic and Language

Logic is the study of reasoning and argument. More particularly, it concerns itself with the difference between good reasoning and bad reasoning, between strong arguments and weak arguments. Certain aspects of this study lend themselves to elegant
Philosophy

systems of formal analysis. This course will provide an introduction to three such systems and will consider the relationship between those systems and the informal arguments that are encountered in real life. We will also investigate some of the connections between logic and philosophy, especially the theory of knowledge.

PHIL 107(S) Introduction to Feminist Thought (Same as Women's Studies 101)

This course introduces students to major works of modern feminist theory and to some issues central to Women's Studies. It is divided into four parts: The first deals with feminist theory and its relation to some other major theories: Darwinism, Freudianism, Marxism, Existentialism. The second part focuses on feminist “politics”: liberal, radical, socialist and separatist. The third part poses questions about sexual inequality from a number of different perspectives. Special attention is paid to how one’s race, class and gender affects her or his understanding of sexual inequality. The fourth part of the course discusses feminists' attempt to tackle the puzzles of power by taking up questions of language and meaning.

This year the course will focus on questions such as the following: how large a role does gender, as compared to race and class, play in human oppression; to what extent are the roots of sexual inequality economic, social, psychological, biological or ontological; is there an inherent connection between sexuality and violence; where should the lines between public and private be drawn; are traditional ideas of masculinity/femininity inherently pernicious; how positive or negative is motherhood for women; do women speak a different language than men; are the various schools of feminist politics compatible?

Although texts will vary from year to year, readings will usually include selections from Darwin, Marx, Freud, Mill and Sartre and some of the following texts: S. de Beauvoir, The Second Sex; J. Mitchell, Women’s Estate; N. Chodorow, The Reproduction of Mothering; J. Elshtain, Public Man, Private Woman; M. Wittig, H. Cixous, J. Kristeva, L. Irigarary, The New French Feminisms; D. Dinnerstein, The Mermaid and the Minotaur; G. Joseph and J. Lewis, Common Differences; Conflicts in Black and White Feminist Perspectives; A. Jagger, Feminist Politics and Human Nature.

No prerequisites. Required course in the Women’s Studies Program.

PHIL 202(F) Greek Philosophy

The course begins with an examination of the types of critical inquiry initiated by the pre-Socratic philosophers and the Sophists. The central portion of the course is devoted to a study of selected Platonic dialogues focusing on Plato’s solution to the problems raised by his predecessors and his attempts to develop a comprehensive vision of reality. The course concludes with an investigation of some of the main features of Aristotle's philosophy.

Prerequisite, Philosophy 101.

PHIL 204 History of Philosophy: Locke to Hegel

The course concentrates on principal philosophies following the problems introduced by Descartes. Topics include the structure of the human mind and the role of experience in our knowledge of ourselves and the world about us. Current philosophy relies, in part, on this “early modern period” for its interests. The course may be useful for those who have a clinical curiosity about the background for structuralism and its deviant descendants. Principal authors are Locke, Hume, Kant and Hegel.

Prerequisite, Philosophy 101.

PHIL 205 Contemporary Aesthetics

Aesthetics has gone through radical changes in the last twenty-five years; new questions have been raised by new movements in art and literature, and new solutions have
been offered. In this course we shall discuss aesthetic ontology (What kind of existence do works of art possess?); semantics (Is there a language of art whose nature can be explicated by linguistic analysis?); and epistemology (Do we know better than our ancestors, how to evaluate objects aesthetically, and what kind of judgment is made by such evaluation?). We shall try to see whether analytic philosophy, which has so completely changed ethics and metaphysics, can have a far-reaching impact on aesthetics as well.

PHIL 208 Philosophy of Science
This course will consider how scientific theories are tested and how they are used to provide explanations. We will consider the nature of knowledge, understanding and progress in science. The readings will include work by Hempel, Goodman, Popper, Kuhn and Feyerabend.
Prerequisite, Philosophy 101.

PHIL 215(S) Philosophy of Law
This course is divided into three parts. The first deals with the nature of law in general. Special attention is paid to comparing natural law theory with legal positivism, to studying the relationship between law and morals and to analyzing the differences between criminal and civil law. The second part is a detailed analysis of the limits of the criminal sanction. Considerable time is devoted to explaining the principles grounding Anglo-American criminal law, to resolving the punishment versus treatment dilemma, and to discussing the strengths and weaknesses of the advisory system. The third part criticizes Anglo-American law first from a cross-cultural and then from a feminist point of view. Requirements, midterm exam and seminar-style paper.
Prerequisite, Philosophy 101.

[PHIL 227 Philosophy and Technology (Not offered 1985-86.)
This course focuses on the relationship among science, technology and philosophy and features an interdisciplinary approach to the social and ethical implications of contemporary technology. Considerable time is devoted to discussing not only the supposed fact-value dichotomy but also the worrisome transition from ethics to politics to science to technique as the dominant modes of discourse. Equal time is given to analyzing the ways in which technology affects the environmental order and the human order (e.g., work patterns, gender relations, family structure). Among the readings are selections from philosophers of science Kuhn, Feyerabend and Popper, environmentalists E.F. Schumacher (Small is Beautiful) and John Passmore (Man’s Responsibility for Nature), social critics Ivan Illich (Tools for Conviviality) and Jürgen Habermas (Toward a Rational Society) and feminist novelist Marge Piercy (Woman on the Edge of Time). Guest lecturers from political science, economics, the history of science and American Studies will supplement the instructor’s lectures and student’s class discussions.
Prerequisite, Philosophy 101 or permission of the instructor.

PHIL 228 The Sense of Beauty
The course is a comparative study of ideas of beauty, east and west. Plato’s Symposium and Santayana’s The Sense of Beauty represent western themes. Japanese views are studied in the authors Kawabata (Nobel Laureate), Mishima, So-seki and Ariyoshi (Japan’s outstanding woman novelist), together with major and minor haikuists and their paintings.
Prerequisite, Philosophy 101 or permission of the instructor.
Philosophy

PHIL 303 Language and Reality
Contemporary work on the traditional problems of philosophy stresses the analysis of language. We will begin by considering standard theories of meaning and some radical criticisms of them which have won adherents over the past decade. Then we shall apply our conclusions about meaning to two philosophical problems which have fascinated people since classical times: that of whether sensory perception gives us a correct picture of reality and that of the mind's relation to the body. Figures to be considered include Bertrand Russell, A.J. Ayer, D.M. Armstrong, Gilbert Ryle, Saul Kripke and A.M. Turing. Prerequisite, Philosophy 101 or 104.

[PHIL 306 Ethics (Not offered 1985-86.)]
This course is concerned with the current crisis in ethics. In the course of analyzing several major schools of normative ethics we shall identify certain problems which contrive to challenge the individual in his/her efforts to live freely and responsibly in community. Special attention will be given to understanding the relationships that respectively obtain between knowledge and virtue, reason and sentiment, duty and self-interest, pleasure and pain, character and action, and goodness and evil. One half of the course will be devoted to traditional or classical ethics (Aristotle, Hume, Kant and Mill); the other half will be devoted to modern ethics (Nietzsche, Camus, Rand, de Beauvoir). A sustained attempt will be made to understand the difference between traditional and modern ethics and to answer the question: is modern man as "ethical" as his traditional counterpart or is ethics passé?
Prerequisite, Philosophy 101.

[PHIL 310 Moral Dimensions of Public Policy (Same as Political Economy 310) (Not offered 1985-86.)]
This course seeks to help students identify moral issues in the context of public policy, to provide analytic skills to deal with these issues and to introduce relevant classical and contemporary writings. Part One deals with the epistemological, political and structural problems that contribute to policymakers' and policy experts' moral dilemmas. What, if anything, separates facts from values; what, if anything, is ethically suspect about cost-benefit analysis; what is the role of an expert in a democracy; can bureaucrats avoid getting their many hands dirty? Part Two deals with general ethical theories about justice, rights and liberty. Part Three considers the moral dimensions of specific policy problems: 1) elections, 2) taxing and spending, 3) blacks and women, 4) criminal justice, 5) environmental protection, 6) technological innovation and its assessment, and 7) biomedical issues.
Requirements, midterm exam and semester seminar paper.

PHIL 311 Epistemology
This course will be a detailed investigation of some of the central topics in the theory of knowledge, with readings drawn from both classic and contemporary sources. We will concentrate on attempts to determine the nature and scope of knowledge by rebutting skeptical arguments, arguments which attempt to show that we do not really know what we think we know.
Prerequisite, Philosophy 101.

PHIL 312 Philosophical Psychology
The first subject to be discussed is Emotions: What are they? How are they related to our cognitive system, on the one side, and to our desires on the other? Are they good or
bad for us? Why do we have them in the first place? Some historical material will be used, but the main focus of attention will be contemporary. The second subject of this class is Dreams. Again we shall ask for a definition: What are dreams; then how do they relate to other psychological faculties, and why do they exist? Was Freud right about the dreams and the unconscious, was he too radical or perhaps too timid?

PHIL 321 Existentialism
A study of the philosophical movement. Intensive reading in Kierkegaard, Sartre and selections from existential psychoanalysis. The course is not a literary investigation. It is an examination of the philosophical foundations of existentialism in Kierkegaard, together with a consideration of developments in atheistic existentialism, theistic existentialism and existential psychoanalysis.
Prerequisite, Philosophy 101. Philosophy 204 recommended, not required.

PHIL 333(S) The Biological Metaphor
An attempt to use a single structural paradigm—the concept of a “living” system—for ordering and integrating all fields of human experience. Readings selected from diverse disciplines are used as a starting point for a philosophical reflection aimed at testing the explanatory power of the biological metaphor. (Individual sections of the course are devoted to the following subjects: biology, neurophysiology, epistemology, language, religion, poetry, economics, ethics, technology.)
Prerequisite, Philosophy 101.

PHIL 401 Senior Seminar
Topics of contemporary philosophical interest studied in seminar fashion and with the aim of encouraging students to exercise skills of analysis and judgment developed in the course of the major program. Topics for the seminar vary according to which member of the department serves as instructor in a particular year.

Prerequisite, senior major status or permission of the instructor.

PHIL W30-492 Senior Essay (Honors Route 2)
Independent study under the supervision of a member of the department. The objective is to write a Senior Essay which synthesizes the work of a three course pattern of intensive study of some philosophical issue.

PHIL 493-W31-494 Senior Thesis (Honors Route 1)
Independent study under the supervision of a member of the department. The objective is the preparation and writing of a senior thesis.

PHIL 497, 498 Independent Study
PHYSICAL EDUCATION

Chair, DR. ROBERT R. PECK

Assistant Professors: BURTON, DAILEY, FARLEY FISHER, HUDSON-HAMBLIN, LAMB, MASON, MCCORMICK, ODELL, ORTON, PEARMAN, RUSSO, SAMUELSON, SHEEHY, SLOANE. Lecturer: PECK. Instructor: GREEVES.

Credit for eight units (8 quarters) of Physical Education, to be completed by the end of the sophomore year, represents one of the requirements for the degree. Extensions may be granted by the Dean of the College in consultation with the Physical Education Department.

Credit may be received, through the sophomore year, by participating in intercollegiate athletics on sub-varsity or varsity teams or through participation on sponsored club teams. Additionally, a maximum of two units may be realized through participation in the marching or pep bands and through the experience of managing a varsity or sub-varsity team during the freshman and sophomore years.

An additional program of instruction is offered to all students during the Winter Study Period.

Students must enroll in at least three different activities in fulfilling the requirement. At least two units must be devoted to one carry-over sport, a sport which can be played and enjoyed throughout one’s lifetime.

The physical education requirement is an attendance requirement. Students enrolled in classes meeting twice a week are permitted one absence, while students enrolled in classes meeting three times a week are permitted two absences.

Courses of instruction for the different quarters consist of:

**First semester:**

**First quarter**
- Golf, tennis, weight training, swimming, strength training for athletics, nautilus, softball, cycling, dance (ballet, modern, jazz, dancercise), volleyball, fitness testing, trail maintenance, rock climbing, camping, scuba diving, horseback riding, classical karate.

**Second quarter**
- Squash, skating, yoga, swimming, strength training for athletics, platform tennis, badminton, martial arts, dance (ballet, jazz, modern, dancercise), horseback riding, figure skating, fitness, archery, basketball, weight training, fencing, bowling, volleyball, racquetball, rock climbing, outdoor experiences, trail crew.

**Winter Study:**
- Yoga, weight training, nautilus, fencing, martial arts, swimming, broomball, volleyball, squash, basketball, figure skating, dance (ballet, jazz, pointe, modern, dancercise, ballroom), standard first aid and CPR, skiing (alpine and cross country) ice climbing, snowshoeing.

**Second Semester:**

**Third quarter**
- Squash, weight training, nautilus, yoga, fitness, broomball, team handball, bowling, badminton, paddle tennis, indoor soccer, martial arts, swimming, volleyball, fencing, basketball, racquetball, indoor lacrosse, skiing (alpine and touring), snowshoeing, dance, ice climbing, elementary school internship.

**Fourth quarter**
- Tennis, golf, life saving and water safety, swimming, trail maintenance, volleyball, softball, fitness, cycling, soccer, skin and scuba diving, rock climbing, orienteering, horseback riding, nautilus.

Students choosing selected off-campus activities such as horseback riding are advised to arrange scheduling through the Physical Education Office.
Four sections meet two times per week in seventy-five minute periods and four sections meet three times per week in fifty minute periods.

**PHYSICS (Div. III)**
Department of Physics and Astronomy
Departmental Staff for 1985-86

*Chair, Professor C. BALLARD PIERCE*

Professors: F. BROWN, CRAMPTON, D. PARK, PASACHOFF, PIERCE. Visiting Bernhard Professor: MILLS. Assistant Professors: JONES, KWITTER, STRAIT, WOOTERS. Lecturer: BABCOCK. Part-time Instructor: KIRKPATRICK.

### MAJOR PROGRAM

**Sequence courses**
- Physics 142 Mechanics and Special Relativity
- Physics 201 Electric and Magnetic Theory
- Physics 202 Waves, Optics and the Origin of Quantum Physics
- Physics 301 Introductory Quantum Physics
- Physics 303 Thermal and Statistical Physics
- Physics 401 Intermediate Quantum Mechanics or Physics 404 Solid State Physics
- or Physics 405 Electromagnetic Fields and Waves or Physics 406 Particles and Nuclei or Physics 411 Classical Mechanics

**Parallel courses**
- Mathematics 108 *Multivariable Calculus* (or the equivalent) must be taken concurrently with or prior to Physics 142, and is prerequisite to Physics 201 and all higher level physics courses.
- Mathematics/Physics 210 *Applied Mathematics for Scientists* may be taken for credit as either a Mathematics or a Physics course. It should normally be taken in the sophomore year, as it is prerequisite to all junior and senior level physics major courses except those jointly listed in Physics and Astronomy. Advanced placement students who take Physics 201 as freshmen should normally take this course in their freshman year also in order to take full advantage of their advanced standing.

A minimum of three physics courses in addition to the six sequence courses listed above must be taken as electives to bring the total number of courses in the department to nine, or else two physics courses plus two courses in Biology, Chemistry, Geology or Mathematical Sciences approved by the department. Mathematics/Physics 210 may count as one of the nine. Credit toward the major will also be given for one introductory physics or astronomy course having a number lower than 142 if taken prior to Physics 142.

**Introductory courses**
The first required course in the major sequence is Physics 142 *Mechanics and Special Relativity*. It is a spring course and has prerequisites of either a year of high school physics or a semester of college physics. Students must also have had or be taking concurrently, Mathematics 108 or the equivalent. Physics 141 *Twentieth Century Physics* is not a required part of the major sequence, but it is strongly recommended as a first course for students who have had a conventional high school physics course. It is an introduction at an elementary level to topics of current research interest which will not be touched upon otherwise until considerably later in the major sequence. An alternative first semester freshman course for potential majors is Astronomy/Physics 111 *Introduction to Astrophysics*, which also has a year of high school physics or a semester
Physics

of college physics as a prerequisite. This course is a required part of the Astronomy and Physics major sequence and is a prerequisite to all upper level astronomy courses. See under Astronomy for a more complete description. Physics 131, while designed as part of a one year survey course for natural scientists, is also appropriate as preparation for Physics 142 for students who wish to consolidate their understanding of basic physical principles before going on into the major sequence, or for students who have not taken high school physics and who are interested in opening up the possibilities of a physics major or a career in engineering. Physics 100 is intended primarily for students majoring outside of the sciences and is not ordinarily elected as preparation for any other physics courses. Physics 142 should normally be elected in the freshman year if a Physics or an Astronomy and Physics major is planned, but the requirements for both majors can still be met if it is taken in the sophomore year. Students with advanced placement often elect Physics 201 as their first course in physics, but this should be done only after consultation with the department chairman to determine if this is their proper point of entry into the major sequence. A placement test is normally given during Freshman Days to assist in this determination. Any questions regarding the proper route to the Physics major should be directed to the department chairman prior to registration.

The Physics major program is devoted to experimental and theoretical physics as elements of the liberal arts. It provides conceptual and quantitative understanding of the fundamental natural laws and phenomena which underlie all physical and biological systems and acquaints the students with the physical and mathematical techniques for studying them. The program serves both as a basis for understanding physical phenomena in their relation to our material and cultural environment and as preparation for advanced study of physics, engineering and other fields for which an understanding of physics and physical technology is useful. Students planning such advanced study should often expect to take more than the minimum number of physics courses, as well as additional mathematics and computer science courses. Such students are urged to consult with members of the department at each stage of their undergraduate careers in order to determine the sequence of courses best suited to their professional and intellectual goals.

The Astronomy and Physics major is described just after the Astronomy course listings.

THE DEGREE WITH HONORS IN PHYSICS

The honors degree in Physics will be awarded on the basis of a senior thesis presenting the results of an original experimental or theoretical investigation carried out by the student under the direction of a faculty member in Physics and Astronomy. There will be no grade requirements (other than college-wide requirements for remaining in good academic standing) for entry into the thesis research program. Students who wish to enter the program will normally choose a thesis topic and a faculty adviser early in the second semester of their junior year, and will write a substantial report during that semester demonstrating that they have carried out a significant amount of background study and have defined a potentially successful thesis project. During senior year those students whose preliminary proposals have been approved will elect two courses and a Winter Study Project in addition to the minimum requirements for the major. Preparation of the thesis will occupy at least one course (normally Physics 493) and the Winter Study Project (W31). At the end of the Winter Study Period the department will decide, in consultation with the student, whether to admit the student to honors candidacy and whether the second course will be another semester of research and writing (normally Physics 494) or a course from the regular department course offerings. Both a written thesis and a colloquium presentation of the results to faculty and fellow students are required, and the degree with honors will be awarded to those who meet these requirements with distinction. Honors candidates will also be required to participate in a departmental discussion program tied to colloquium talks. For approximately six selected colloquia each year, honors candidates (and other majors who so desire) will be expected to do some background reading and participate in both a pre-colloquium and a post-colloquium discussion to be led by a faculty member.

The department will be flexible with regard to the number and timing of courses devoted to thesis research within the general guidelines of two courses and a Winter
Study Project over and above the minimum major requirements and the written and oral presentations, especially in cases of students with Advanced Standing and/or summer research experience. Students considering unusual requests are urged to consult with potential advisers or the department chairman as early as possible.

EXCHANGE STUDENTS

Students from other institutions wishing to register for junior and senior courses in Physics should do so in person with a member of the Physics and Astronomy Department staff. Registration should take place by appointment during the spring semester prior to the academic year in which courses are to be taken. Registering students are requested to have with them transcripts of previous college work in mathematics and physics. Attention is particularly called to Physics 493-W31, W31-494, Senior Research, registration for which is only possible after consultation with and approval by the person who is to direct the thesis.

COURSES FOR NON-MAJORS

The department offers a number of courses to satisfy the interests and needs of nonphysics majors who wish to have or require some exposure to physics as an intellectual discipline. Physics 131, 132 is offered primarily to meet the needs of majors in other sciences who require a full year of college physics to satisfy prerequisites in their discipline or to meet requirements for graduate professional school admission. It is also appropriate for students majoring outside of the sciences who desire a relatively rigorous and quantitative full year survey of all of the major areas of physics. Physics 100 is intended as an alternative survey for students not majoring or planning to major in the sciences who would like a shorter and less technical introduction to areas of contemporary interest. Physics 141 serves both as a bridge to the major sequence for potential physics majors and as an appropriate terminal course for students who would like to exploit their elementary physics background to learn something about what is going on now in several areas of important current research. Finally, we offer 330 level courses without prerequisites which are designed to introduce special topics of significant current interest to juniors and seniors. At the present time these include Astronomy/Physics 330 The Nature of the Universe, Physics 333 Explaining the World and Astronomy/Physics 334 Exploration of the Universe. From time to time other courses are offered in this category. The 330 level courses are closed to physics majors and to freshmen and sophomores. As an aid to non-majors interested in taking physics courses we list separately at the beginning of the department offerings those courses which may be taken with no prerequisites. All courses in Physics satisfy the Division requirement.

ADDITIONAL INFORMATION about the major program, the thesis research program, courses for non-majors and faculty research interests can be found in an informal departmental guide, which is available at the Thompson Physics Laboratory or by writing to the department chairman. Special information about combined and exchange programs for prospective engineers can be picked up at the same place or obtained by writing to the Pre-Engineering Adviser.

COURSES FOR NON-MAJORS WITH NO PREREQUISITES

**PHYS 100(F)** Contemporary Physics

A broad non-mathematical survey of physics from the contemporary point of view, with extensive discussion of such modern topics as lasers, holography, relativity, black holes, superconductivity, energy sources and quarks, along with study of the basic concepts of physics. The goal of this course is to convey appreciation and understanding of the range of new developments and a feeling of excitement about current research. The course is intended for students who have little or no background in science and who are not planning to take additional courses in physics. It does not satisfy the
Physics

admissions requirements of most medical schools. Lectures, three hours a week; occasional optional extra meetings (to be used for discussions, laboratory work, films and videotapes). No prerequisite.

PHYS 131, 132  Survey of Physics

A comprehensive survey of the major areas of classical and modern physics which are of interest to our contemporary society. Topics will include classical mechanics, thermodynamics, waves, electromagnetic theory, relativity, the ideas of quantum theory and elements of atomic and nuclear physics.

Physics 131 and 132 are designed primarily to meet the needs of students who require a year of college physics with laboratory as background for the study of other natural sciences or for admission to graduate professional schools. They are also appropriate for majors outside the sciences who would like a full year survey of physics as part of their liberal arts experience. Physics 131 can serve as preparation for further study of physics for students with little or no high school physics background who need a review of basic principles before entering the major sequence. Students in the latter category will normally follow Physics 131 with 142 rather than 132.

Two lectures, one conference period each week and a two hour laboratory period. Prerequisite for 131, Quantitative Studies 100 (or demonstrating basic proficiency in diagnostic test—see Quantitative Studies). Credit will be given for Physics 131 without 132, but Physics 131 or its equivalent is prerequisite to 132. These courses do not require the use of calculus or any previous study of physics, but elementary algebra and trigonometry will be used freely.

Hour  Conferences: 131 132

Lab sections:  Pierce, Kirkpatrick

PHYS 330  The Nature of the Universe (Same as Astronomy 330) (Not offered 1985-86.)

(See under Astronomy for full description.)

PHYS 333  Explaining the World (Not offered 1985-86.)

There is by now a vast system of ideas which purport to explain at least in outline, how the physical world is constructed and how it works, from the elementary particles to the cosmos as a whole. It spins its web out of mathematics and concepts like space and time and then claims that all or much, has been explained. But what is an explanation anyhow? We look around us and do not see mathematics or space or time. These are abstractions of some kind; the world is real—or is it? In a series of detailed examples this course will study the relation of scientific explanations to the things they claim to explain and seek the answer to the question: What do I mean when I say I understand?

Lectures and reading, a single long paper and a final exam. Prerequisite, a working knowledge of high school algebra.

Hour  D. Park

PHYS 334  Exploration of the Universe (Same as Astronomy 334) (Will not be offered 1986-87.)

(See under Astronomy for full description.)

COURSES WITH PREREQUISITES

PHYS 111  Introduction to Astrophysics (Same as Astronomy 111)

(See under Astronomy for full description.)
PHYS 141 Twentieth Century Physics

A survey of some of the main ideas of modern physics, one of two recommended entrance courses to the Physics major. Topics include the nature of matter and of light and how they interact; the structure and transformations of the elementary particles; the theory of quarks and gluons and how it is tested in explaining the properties of the known universe in terms of processes occurring during the first few seconds of the Big Bang.

Lectures and discussion, three hours per week.
Prerequisites, Quantitative Studies 100 (or demonstrating basic proficiency in diagnostic test—see Quantitative Studies) and a year of high school physics or consent of instructor.

Hour Mills

PHYS 142 Mechanics and Special Relativity

Particle dynamics and the special theory of relativity. Emphasis will be placed on developing an ability to analyze the motion of simple systems using conservation laws and other first principles.

This course is intended for students who plan to major in physics or in one of the other sciences or mathematics as preparation for graduate study and professional work in those fields or in engineering.

Lectures and conferences, three hours a week; laboratory, three hours a week; problem sets.
Prerequisite, a year of high school physics or one semester of college physics. Students taking Physics 142 must have had or be taking Mathematics 108 or equivalent.

Hour Lab. sections: JONES

PHYS 201 Electric and Magnetic Theory

Electrostatics, steady currents and moving charges. Special relativity and the electromagnetic field, Maxwell’s equations. Microscopic theory of dielectrics and magnetic materials.

Lectures and discussion, three hours a week; laboratory, three hours a week; problem sets.
Prerequisites, Physics 142 and Mathematics 108 or the equivalent.

Hour Lab. sections: JONES

PHYS 202 Waves, Optics and the Origin of Quantum Physics

Introduction to the linear wave phenomena: superposition, normal modes, interference, diffraction, dispersion and polarization. Concepts of modern physical optics including aspects of coherent and incoherent light. The classical kinetic theory of gases will be introduced as well as Planck’s theory of black body radiation.

Lectures and discussion, three hours a week; problem sets; laboratory, three hours a week.
Prerequisite, Physics 201.

Hour Lab. sections: STRAIT

PHYS 204 Electronics

An introduction to modern electronics: basic circuit elements, network theorems, circuit analysis and design emphasizing digital and analog integrated circuits.

Lectures and discussion, three hours a week; laboratory, three hours a week; problem sets.
Prerequisite, Physics 201.

Hour Lab. section: BABCOCK

PHYS 210 Applied Mathematics for Scientists (Same as Mathematics 210)

Introduction to applied mathematics for physics, chemistry and mathematics students. Topics include differential and integral equations, Fourier series and integrals, orthonormal sets of functions and complex variables.

Lectures and discussion, three hours a week; problem sets.
Prerequisite, Mathematics 108 or equivalent.

Hour D. PARK
PHYS 301  Introductory Quantum Physics
The origins of quantum theory, development of the Schrödinger wave equation, exact and approximate solutions to the wave equation, applications to atomic and nuclear physics. Lectures and discussion, three hours a week; problem sets; laboratory, three hours a week.
Prerequisites, Physics 202 and 210.
F. Brown

PHYS 303  Thermal and Statistical Physics
Introduction to the terminology and methods of thermodynamics. Theory of systems consisting of large numbers of particles. Derivation of physical properties and their relations to the thermodynamic description. Applications to various thermal phenomena. Lectures and discussion, three hours a week; problem sets.
Prerequisites, Physics 201 and 210.
Crampton

PHYS 307  Modern Astrophysics (Same as Astronomy 307)
(See under Astronomy for full description.)

[PHYS 309  The Milky Way Galaxy (Same as Astronomy 309) (Not offered 1985-86.)]
(See under Astronomy for full description.)

PHYS 401(S)  Intermediate Quantum Mechanics (Will not be offered 1986-87.)
General formulation of quantum dynamics. Symmetry, spin and orbital angular momentum, scattering, radiation and theory of many-particle systems. Applications to atomic and nuclear physics. Lectures and discussion, three hours a week; problem sets.
Prerequisite, Physics 301.
Crampton

[PHYS 404  Solid State Physics (Not offered 1985-86.)
Crystalline structure, elastic and thermal properties, theory of electrons in metals, introduction to band theory, properties of semiconductors, magnetic and dielectric properties, crystal defects. Lectures and discussion, three hours a week; problem sets. Prerequisites, Physics 301 and 303 or permission of instructor.
]

PHYS 405(S)  Electromagnetic Fields and Waves (Will not be offered 1986-87.)
Fundamentals of electromagnetics, mathematical methods in potential theory, Maxwell's equations, electromagnetic waves, the field of an accelerating charge, radiating systems. Lectures and discussion, three hours a week; problem sets.
Prerequisites, Physics 202 and 210.
D. Park

PHYS 406(F)  Particles and Nuclei (Will not be offered 1986-87.)
Properties of nuclei and theories of nuclear structure. Experimental methods of particle physics. Conservation laws and dynamical principles. The quark model. Lectures and discussion, three hours a week; problem sets.
Prerequisite, Physics 301.
Mills
Physics, Political and Economic Philosophy

[PHYS 410] Topics in Astrophysics (Same as Astronomy 410) (Not offered 1985-86.)
(See under Astronomy for full description.)

[PHYS 411(S)] Classical Mechanics (Not offered 1985-86.)
Basic principles of theoretical mechanics, with particular regard to questions of physical formulation and mathematical method. Lagrange's equations, planetary motion, kinetics and dynamics of rigid bodies, correspondence of classical mechanics with quantum mechanics and other applications.
Lectures and discussion, three hours a week; problem sets.
Prerequisite, Physics 142 and 210.

PHYS 412 Solar Physics (Same as Astronomy 412) (Will not be offered 1986-87.)
(See under Astronomy for full description.)

PHYS 493-W31, W31-494 Senior Research
An original experimental or theoretical investigation is carried out under the direction of a faculty member in Physics and Astronomy, as discussed above under the heading of the degree with honors in Physics.
Senior course. Prerequisite, permission of the department.

PHYS 497, 498 Independent Study

Colloquia
The Faculty of the Physics and Astronomy Department meets weekly to discuss recently published and unpublished work. Members of other science departments and undergraduates are welcome and undergraduate majors are expected to attend.

POLITICAL AND ECONOMIC PHILOSOPHY

Courses which approach economic and political issues from a philosophical standpoint, raising fundamental normative questions, are offered in various departments. Because many students define their interests in these terms, the following list of relevant courses is presented here for students' convenience. See respective departmental listings for full descriptions.

Anthropology 204 Economic Anthropology
Economics 312 Markets and Morals
Economics 319 Radical Political Economy
Economics 354 Issues in Economic Theory
Economics 371 Economic Justice
Philosophy 227 Philosophy and Technology
Philosophy/Political Science 310 Moral Dimensions of Public Policy
Philosophy 333 The Biological Metaphor
Political Economy 301/Political Science 333 Analytical Views of Political Economy
Political Science 103 Justice, Freedom and Equality: An Introduction to Western Political Philosophy
Political Science 231 Ancient and Medieval Political Philosophy
Political Science 232 Modern Political Philosophy
Political Science 234 The Idea of Freedom (Deleted 1985-86.)
Political Science 235 Conservatism in Modern Political Thought
Political Science 236 Political Thinking About Women
Political Science 334 Issues in Political Philosophy
P and EP, Political Economy

Political Science 337 Marxist Thought and Controversy in the Twentieth Century
Political Science 403 Seminar in Political Philosophy
Sociology 101 Invitation to Sociology
Sociology 202 Sociology of Knowledge and Belief

POLITICAL ECONOMY (Div. II)

Chair, Professor MacAlister Brown

Advisory Committee: Professors: MAC BROWN, BRUTON††***, JACOBSOHN, LEWIS, SHEAHAN††††, TAUBER††. Assistant Professors: FAIRRIS, LEVY. Lecturer: BOOTH.

MAJOR PROGRAM

Political Science 101 Politics and Democracy in America
Economics 101 Introduction to Economics
Political Science 102 International Relations
Economics 251 Price and Allocation Theory† Note prerequisite: a 200 level Economics course
Economics 252 Income and Growth Theory
Political Science 206 Empirical Political Science
Political Economy 301/Political Science 333 Analytical Views of Political Economy
Economics 358 International Economics or Economics 360 International Finance
Political Science 214 Congress: Representation, Re-election and Policy or Political Science 217 State Politics and Policies (Deleted 1985-86) or Political Science 218 Presidential Power or Political Economy 302/Political Science 316 Public Policy Making in the U.S. (Deleted 1985-86.) or Political Economy/Philosophy 310 Moral Dimensions of Public Policy or Political Science 315 The Politics of U.S. Foreign Policy Making
Political Economy 401 Political Economy of International Affairs
Political Economy 402 Political Economy of Public Policy Issues

The major includes substantial study of the central analytical approaches in both political science and economics. In the junior and senior years a conscious merging of the approaches in the two fields is undertaken in the three required Political Economy courses. These courses are designed and taught jointly by political scientists and economists. Political Economy 301 examines alternative analytical frameworks which affect how an analyst views a political economic problem. Political Economy 401 examines interactions of political and economic forces in contemporary international affairs. Political Economy 402 examines such interactions in selected current public policy issues. Background for these senior courses is acquired through a course in international economics and a course relating to American public policy making.

The major seeks to surmount the sometimes artificial barriers of specialization that may characterize either subject taken by itself. It is designed to give those who enter politics, public service, business or law a grasp of the governmental and economic environment within which they will have to operate; and to give those who continue in academic work an opportunity to make the interdependence of political and economic forces the foundation of their more advanced studies.

THE DEGREE WITH HONORS IN POLITICAL ECONOMY

Due to the special demands of this interdisciplinary major, the only route to Honors in Political Economy is the thesis. Seniors may pursue the honors thesis course (Political Economy 493-W31) during the fall semester and Winter Study period. The third course contributing to such an honors program would normally be an elective in Political Science, Economics or Political Economy, taken during the junior year. This course,
which may be one of the required electives, must be closely related, indeed must prepare the ground for the honors thesis.

Juniors in the Political Economy major may apply for the honors thesis program by means of a written proposal submitted to the Chair at least ten days before the course registration in the spring. Written guidelines for such proposals are available in the Chair’s office. The proposal should have been discussed with at least two faculty members, and at least one faculty adviser from each discipline should be solicited by the student prior to submission of the proposal.

The Political Economy Honors sub-committee will review such proposals and advise students prior to spring registration whether the project has been provisionally approved. Final approval will be given by the end of the spring semester and the advisers will be indicated.

To achieve the degree with honors in Political Economy the thesis must be completed by the end of Winter Study period and be judged of honors quality by the Honors sub-committee. A thesis which is judged to be of particular distinction will qualify its author for the degree with highest honors.

AFRO-AMERICAN STUDIES AND AREA STUDIES

Students majoring in Political Economy who wish credit for a concentration in Afro-American or Area Studies may take either four regular courses in the field of concentration or three such courses plus one winter study project. In either case, one of the courses taken must be in economics and one in political science.

PECO 301 Analytical Views of Political Economy (Same as Political Science 333)

Political economy deals with the creation and distribution of values within a society, and the effects that the economy and the policy have on each other. What one sees in this field depends on what one looks for, i.e., on the analytic view adopted. This course emphasizes the classical laissez faire theory of Adam Smith, the dialectical theory of Karl Marx and the humanitarian liberalism of J. S. Mill and J. M. Keynes; and observes how interpretations of contemporary political economists are shaped by these alternative theoretical frameworks. Required in Political Economy major but open to non-majors. Prerequisites, Economics 101 and Political Science 101.

PECO 310 Moral Dimensions of Public Policy (Same as Philosophy 310) (Not offered 1985-86.)

This course seeks to help students identify moral issues in the context of public policy, to provide analytic skills to deal with these issues and to introduce relevant classical and contemporary writings. Part One deals with the epistemological, political and structural problems that contribute to policymakers’ and policy experts’ moral dilemmas. What, if anything, separates facts from values; what, if anything, is ethically suspect about cost-benefit analysis; what is the role of an expert in a democracy; can bureaucrats avoid getting their many hands dirty? Part Two deals with general ethical theories about justice, rights and liberty. Part Three considers the moral dimensions of specific policy problems: 1) elections, 2) taxing and spending, 3) blacks and women, 4) criminal justice, 5) environmental protection, 6) technological innovation and its assessment, and 7) biomedical issues. Requirements, midterm exam and semester seminar paper.

PECO 397, 398 Independent Study

Open to juniors or seniors majoring in Political Economy, with approval of a faculty supervisor and the chairman.

PECO 401 Political Economy of International Affairs

Analysis of how varying political and economic concerns of different nation states interact in contemporary international affairs both among the industrialized countries.
and between them and the developing countries. Particular issues may include Euro­
pean integration, international financial institutions and arrangements; exchange rate
and monetary policies among the industrialized countries and desirable limitations on
national autonomy; trade competition among Japan, the U.S. and West European
countries; the impact of the "Newly Industrializing Countries" as major actors on the
world scene; regional problems and comparisons; the world food problem; and North-
South relationships associated with questions of dependency and the New international
Economic Order.
Required in the major. Prerequisites, Economics 358 or 360 and Political Science 206.

**PECO 402 Political Economy of Public Policy Issues**
The course begins with an introduction to institutions and methods of making public
policy decisions and coping with social change through governmental actions in the
United States. The core of the course consists of analyses by student study groups of
particular current issues of public policy. The student groups investigate the interacting
political and economic aspects of an issue, do extensive reading, conduct interviews
(during spring recess) with public and private officials, write a major report on their
findings and recommendations, and defend it orally in a public session.
Required in the major.
Prerequisites, Political Science 214 or 216 or 217 (Deleted 1985-86.) or 218 or 315 or
Political Economy 302 or 310.

**PECO 493-W31 Honors Thesis**

**POLITICAL SCIENCE (Div. II)**

*Departmental Staff for 1985-86*

*Chair, Professor GARY J. JACOBSON*

Professors: BAKER, MAC BROWN, BURNS, GRENEE†, HASTINGS, JACOBSON, JORLING,
MARCUS, TAUBER††. Associate Professor: KROUSE. Assistant Professors: ASSEFA, W.
BROWN, COOK, EGAN*, MACDONALD, STIGLICZ. Lecturer: BOOTH. Visiting Lecturer:
BARNETT.

**MAJOR PROGRAM**
The major consists of a minimum of nine courses, including:

(a) Any two of the following, in any order:
   101 Politics and Democracy in America (Subfield A)
   102 International Relations (Subfield B)
   103 Justice, Freedom and Equality: An Introduction to Western
      Political Philosophy (Subfield C)
   104 Comparative Politics: Power, Legitimacy and Change in the Modern World
      (Subfield D)

(b) 206 Empirical Political Science

(c) Two distribution courses on the 200 level, one each in the two subfields which the
    student did not cover under (a) above.

(d) Three courses on the 200 or 300 level, two of which must be in the major's
    subfield of specialization.

(e) Senior Seminar or Individual Project (495-W32 or W32-496).

The Department offers four Seminars, one in each of the subfields. Each seminar is
open only to those majors who have had three courses (the 100 course or distribution
course and two additional electives) in the corresponding subfield. Similarly, the Indi-
Individual Project may be entered upon only by those who have had three courses in the subfield of the research proposal.

During the second semester of the junior year, students will elect the Individual Project or Seminar route for the completion of their major. Those electing the Project route must have their adviser and topic agreed upon before spring registration.

ADVISEMENT
Students who consider majoring in Political Science are advised to plan to take the two courses under (a) in their freshman year; the course under (b) and at least one of the courses under (c) in the sophomore year. In any event, Political Science 206 may not be postponed until the senior year. Majors must have completed both subfield specialization electives (see above, d) before taking the Senior Seminar or Individual Project. Exception to this must be approved by the Department Chair.

SUBFIELDS
Virtually all the courses in Political Science fall into one or another of the following four subfields.
Subfield A: American Politics (courses numbered in the 10's)
Subfield B: International Relations (courses numbered in the 20's)
Subfield C: Political Philosophy (courses numbered in the 30's)
Subfield D: Comparative Politics (courses numbered in the 40's)
The subfield designation follows the course description. You will notice that although most of the courses are subfield-specific, there are a few courses that qualify for two subfields.
Junior majors who can demonstrate that their interest in Political Science cannot be accommodated within one of the existing subfields, may petition the Department for permission to devise their own “subfield major” of a minimum of two Political Science electives and an Individual Project in the senior year.

Winter Study Project
Although the Department continues to welcome relevant WSP 99 proposals that can make important contributions to the students' understanding of public affairs and politics, no more than thirty can be accommodated in any one Winter Study Period. Majors, seniors and students without previous WSP 99 experience have preference.

ADVANCED STUDY IN AMERICAN POLITICS
The Department of Political Science provides the opportunity for an unusually gifted Senior to engage in an entire year's advanced research in American politics under singularly favorable conditions. Supported by income derived from an endowment fund, the student, designated the Sentinels of the Republic Scholar (after the name of the fund), receives a substantial research stipend to cover costs associated with the proposed project.
This unique research course (Political Science 481-W33-482) is designed to encourage the pursuit of excellence among the most talented Williams students of Political Science. Admission to it is awarded to the most distinguished candidate on the basis of demonstrated capacity for outstanding work and of the project's promise for creative contributions to the understanding of American politics, political institutions and thought.

AFRO-AMERICAN STUDIES, AREA STUDIES, ENVIRONMENTAL STUDIES AND WOMEN'S STUDIES
Students majoring in Political Science who are undertaking an Afro-American Studies, Women's Studies, Area Studies or Environmental Studies program, and who are candidates for the regular degree, may take two courses under these programs in other departments as the two-course variant of the students' non-subfield elective course (d), as long as the courses have political science content and have been submitted to the Political Science Department for approval.
Political Science

THE DEGREE WITH HONORS IN POLITICAL SCIENCE
The Political Science Department grants Honors to candidates who, 1) complete the Senior Seminar, 2) receive at least a grade of 9.5 on either a Senior Essay (491-W30 or W30-492: Honors Route 1) or a Senior Thesis (493-W31-494: Honors Route 2), and 3) have a minimum G.P.A. of 8.8 in Political Science.

To become a candidate for Honors, 1) the student must apply in the second semester of junior year, 2) the research proposal must be acceptable to the Department's Honors Committee, and 3) the applicant's G.P.A, in Political Science courses for the first six semesters must be at least 8.8.

THE JUNIOR YEAR ABROAD
A major in Political Science can be readily and usefully combined with study in a foreign country. Normally, no more than two semester courses taken abroad may be counted toward the requirements for a degree in Political Science. However, with the Department's prior approval of a petition, three semester courses can be applied toward the major requirements.

Students who are thinking about spending an entire year abroad, should make very certain that they will have taken Political Science 206 by the end of their sophomore year.

PSCI 101(F,S) Politics and Democracy in America
A survey of American politics focusing on the vitality and viability of democracy in the United States. It begins by examining what kind of political system the founders had in mind and reviews more recent theories of how and whether the people rule. After an overview of the politics of American national institutions—elections, Congress, the presidency and the Supreme Court—the course concludes by addressing three questions: How well does American democracy anticipate, assess and solve problems? Does everyone have a voice in the political process? Does democratic practice produce public policy which is equitable?
Requirements, midterm and final examinations and two short papers.
Hours 101(F) First semester: BARNETT, COOK, MARCUS
101(S) Second semester: KROUSE

PSCI 102(F,S) International Relations
A broad introductory survey of international relations dealing with three major substantive areas: 1) Nation-states—goals, interests, capabilities, concepts of power and security; 2) Decision-making and leadership in crisis and non-crisis situations; 3) the International System—political and economic integration, alliance relationships, intervention. A final section of the course deals with the effectiveness of international law and organization as instruments of conflict resolution. The course emphasizes current problems and gives a broad geographic coverage.
Requirements, midterm and final examinations and two short papers.
Hours 102(F) First semester: MAC BROWN, MACDONALD, BARNETT
102(S) Second semester: W. BROWN, STIGLICZ

PSCI 103(F,S) Justice, Freedom and Equality: An Introduction to Western Political Philosophy
This course presents some of the greatest examples of Western Political Philosophy with particular attention to the problems of social justice, legitimate authority, equality, freedom and the individual/society relationship. Through the writings of such thinkers as Plato, Aristotle, Hobbes, Locke, Rousseau, Burke, J.S. Mill and Marx as well as through examples of contemporary theorizing, this course also addresses the questions of the nature of political philosophy, of its functions in Political Science, of its relations to ideology and its contributions to political action.
Requirements, three short (4-5 pages) papers, a midterm exam and a final examination.
Hours 103(F) First semester: ASSEFA
103(S) Second semester: ASSEFA, TAUBER
PSCI 104(F,S) Comparative Politics: Power, Legitimacy and Change in the Modern World

There is a tendency to look at all politics through the prism of the American experience. This course will consider politics in other countries and the ways they are most fruitfully studied. To this end the course will apply the comparative method to show the similarities as well as the differences in seemingly disparate political settings. Substantively we will consider how such concepts as power, authority, legitimacy, consent and rebellion manifest themselves in other countries. By considering these concepts cross-nationally we will also learn the methods and difficulties of doing comparative analysis. In addition to required readings in political science we will draw on other less formal sources relevant to an understanding of comparative political behavior.

Requirements, midterm and final examination and two short papers.

Hours 104(F) 104(S)

First semester: MacDONALD
Second semester: BAKER

PSCI 206(F,S) Empirical Political Science (Same as Sociology 212(F,S) Empirical Social Science)

Three major problems of social and political science as disciplines developing theory: the logic of inquiry, measurement and language, and methodology. Critical emphasis is placed on the assumptions of the scientific method, quantification and techniques of secondary data analysis. Multivariate statistical techniques for cross-tabulation, correlation/regression and path analysis are covered. Analysis problems stress the inter-relationship of theory and research. Emphasis is placed on the use of the computer to obtain appropriate statistics rather than on hand-calculation. A knowledge of computer programming is not necessary.

Requirements, individual exercises, one group exercise, midterm examination, final examination and one analysis paper of 10-15 pages.

Hours 206(F) Lab. sections: 206(S) Lab. sections:

First semester: STIGLICZ
Second semester: MARCUS

PSCI 211 Public Opinion and Political Behavior (Same as Psychology 243)

Psychological and sociological variables affecting the formation and change of political attitudes. Pressure groups and the mass media of communication as they influence the formation of public opinion on current domestic and international issues. Perennial and ad hoc relationships between political opinions and candidate choice. A critical examination of polling as a research technique used in the measurement of public opinion. The class designs and executes a local public opinion survey. Each student analyzes that segment of the poll data reflecting his or her particular substantive interest.

Requirements, one hour exam and a project report.

Group A Prerequisite, Psychology 101 or Political Science 101.

Hour

HASTINGS

PSCI 214(F) Congress: Representation, Re-election and Policy

This course focuses on the most powerful legislative assembly in the world, the U.S. Congress, from the perspective of theories of representation. We examine both of the "two arenas of Congress" to evaluate how well, if at all, the activities of the members at home and in Washington represent the demands, needs and concerns of their constituencies and of the American people. The first half of the course is concerned with congressional elections and constituency relations. The second half studies the problems and prospects of congressional leadership, internal (dis)organization, the nature of the decision-making process and the impact of these internal components upon representative policy outcomes.

Requirements, two interpretive critical essays; final examination.

Group A

Hour

COOK
[PSCI 215 (formerly 216)  American Parties and Elections (Not offered 1985-86.)]

This course investigates contemporary American Political parties from three perspectives. The first portion of the course provides the fundamentals about parties, including the organization and structure of national and local party systems; the role parties play in influencing government decisions and policies; and the impact of parties on voters and candidates in election campaigns. The second portion of the course emphasizes elections, with special attention given to recent theories about voting behavior. The final perspective delves into current and conflicting interpretations about the evolving nature and usefulness of parties today.

There is no paper assigned in this course. Instead, everyone will perform a research exercise. This exercise will accomplish one or more of the following purposes: acquaint you with resource materials about parties and elections; allow you to test some of the textbook assertions; and/or bring you into contact with candidate and party activities. Possible exercises will be described on a hand-out.

Requirements, hour exam and final.

Group A

Hour

PSCI 218  Presidential Power

The American presidency is commonly seen as the focal point of American politics and the most powerful component of the federal government. This course investigates this modern “textbook presidency,” as set forth by Neustadt’s classic Presidential Power, by examining the presidency in an organizational context. During the semester, we consider: what presidents are expected to do and elected to do; the president’s personal impact on the presidency; and the extent to which Congress, the media, the bureaucracy and the public provide opportunities for and constraints against presidential leadership. The underlying concern is to assess the president’s power to influence domestic policy in the presidency, the federal executive and the American political system as a whole.

Requirements, research paper and final exam.

Group A

Hour

PSCI 219  Constitutional Law (Not offered 1985-86.)

A study of the courts in the American political system emphasizing the United States Supreme Court and the exercise of judicial review. The course focuses upon the role of the courts in a democratic society and the nature of the judicial decision-making process. Much of the reading is of Supreme Court opinions that illustrate and define the structure of power in a constitutional democracy and the rights of individuals under the Constitution.

Requirements, midterm and final examinations and a critical paper of short to medium length.

Group A

Hour

PSCI 220(F)  Politics and Film: Meaning and Aesthetics in Films of Violence, Revolution and War

The central concern of this course is to explore the relationship between aesthetic judgment and moral-political judgment within the analysis of cinema. Toward this end, we will analyze works bearing themes of violence, revolution and war by Antonioni, Bergman, Fassbinder, Godard, Herzog, Makavejev, Mizoguchi, Ophuls, Resnais, Riefenstahl, Rossellini, Syberberg and Wertmuller.

Requirements, analysis paper, final essay and critical viewing of required films.

Group B

Hour
[PSCI 221] Issues in U.S. Foreign Policy (Not offered 1985-86.)
The course concentrates on the superpower era after a brief consideration of pre-1945 policy. Attention is focused on relations with the U.S.S.R., allies and neutrals. These in turn are related to consideration of motivating factors—from economic concerns to human rights—that also affect the nation's foreign policy. Finally, we examine the impact changes in administrations have had on the course of U.S. diplomacy. Requirements, midterm and final examinations.

Group B
Hour

Greene

[PSCI 225] International Organizations: Promise and Pitfalls (Not offered 1985-86.)
The evolution of the United Nations system and other international organizations, examined with an eye to their origins, modes of operation, functions and future prospects. Problems such as food, refugees, economic development, conditions of labor, health, human rights, environmental protection and regional stability are examined in relation to the role of international organization. U.S. policy toward the U.N. is evaluated. A field trip to the United Nations General Assembly, Secretariat and national missions. Requirements, midterm and final examinations and report on the field trip or a research paper.

Group B  Prerequisite, Political Science 102.
Hour

Mac Brown

[PSCI 226] Origins and Consequences of Nuclear War (Not offered 1985-86.)
Exploring the trinity of philosophy, psychology and politics, we theorize about nuclear war origins and consequences. Examining Hiroshima and Nagasaki, we reflect on the gaping distance which separates “good” intentions from consequences that betray a “butchery of untold magnitude.” This leads to thought on the character of modern political circumspection and to study of related problems: superpower fatuity, deterrence as paradox, limits of rationality, alienation of human from artificial intelligence, nuclear war’s effect on the mind, the possibility of extinction, as well as denial, anxiety, nihilism, symbolic immortality, God, love and death in the nuclear period. Requirements, four 5-7 page assignments and participation in selected course exercises and simulations.

Group B  No prerequisite, however a commitment to multidisciplinary approach is desirable. Enrollment limited.
Hour

Stiglicz

A critical study of the theoretical and practical difficulties encountered in attempts to reconcile the following goals in nuclear strategy and policy: (a) the maintenance of deterrence in a world of political change, (b) arms control and reduction, and (c) the ability to wage war and win if deterrence fails. At semester’s end, each student participates in a simulation of the American and Soviet policy-making processes with respect to nuclear strategy. Requirements, midterm, final examination and medium length paper.

Group B  Prerequisite, Political Science 102 or permission of the instructor.
Enrollment limited
Hour

Stiglicz

PSCI 228 International Law
An introductory examination of the substance and role of international law in regulating such questions as warfare, territory, human rights, use of the sea, treaties, contracts, criminal liability, terrorism, protection of diplomats, the formation, recognition and
succession of states and expropriation of assets. Mock court cases are argued and written briefs prepared.

Requirements, midterm and final examinations and mock court participation or a research paper.

*Group B*  
Prerequisite, Political Science 102.

**PSCI 231  Ancient and Medieval Political Philosophy**

A study of ancient Greek and Judeo-Christian political thought. Readings include Aeschylus, Sophocles, Thucydides, Plato, Aristotle, the Old and New Testaments, Augustine and Aquinas. The course will focus on such themes as the nature of politics, justice and political knowledge and the formation and relation of 'public' and 'private' spheres of life—men and women, citizens and noncitizens. The texts will be treated historically, but with a concern for how their ideas contribute to the foundations of Western politics and contemporary political thinking.

Lecture and discussion. Requirements, two papers and a final exam.

*Group C*

**PSCI 232  Modern Political Philosophy**

A study of major political theorists in the Western traditions from the Renaissance through the nineteenth century. Readings include Machiavelli, Hobbes, Locke, Rousseau, Mill, Hegel, Marx. The course will focus on such themes as the nature of modernity and liberalism, conceptions of the nation-state, the individual, freedom, justice, equality, politics and authority; and on critical approaches to the dominant structures and formulations of modern political life.

Requirements, two papers and a final examination.

*Group C*

**PSCI 235  Conservatism in Modern Political Thought (Not offered 1985-86.)**

The course does two things: (1) it seeks to identify the essence of conservatism underneath or within the rich strand of political thought which emerged as a reaction to the French Revolution and to the social dislocations occasioned by the development of capitalism; (2) it analyzes the varied conservative theoretical responses to industrialization, democratization, corporate capitalism and the welfare state. Readings from the political works of the major Anglo-American and Continental Conservatives. In the case of contemporary authors, the relevance of their critique of present realities and of their position on current issues become a key concern.

Requirements, final examination and either several short interpretive essays or one term paper.

*Group C*

**PSCI 236(F)  Political Thinking About Women**

Most of "the greats" in Western political philosophy did not consider women suited for political/public life, or even for citizenship. Yet each of them pondered the nature and place of women, often in some depth, as they sought for a general theory of politics and society. Through a study of these theorists' understanding of women, we will explore 1) the ways in which the oppression and exclusion of women from public life have been institutionalized and justified; 2) elaborate and tenacious ideologies of womanhood and manhood in Western history; 3) specifically 'masculine' characteristics of political thinking and practice; and 4) the ways in which these historical phenomena condition and permeate contemporary public and private life.

Readings will include selections from Aristotle, Arendt, Mill, Marx, Rousseau and Lenin as well as feminist "rejoiners" to these and other theorists— Wollstonecraft, Kollontai, de Beauvoir, MacKinnon, O'Brien and others.
[PSCI 238] Democratic Theory (Not offered 1985-86.)
An examination of the evolution of democratic ideas and an inquiry into selected problems in the theory and practice of modern democracy. Among the topics considered are the meaning and justification of the democratic idea, the relationship between liberalism and democracy and problems of representation, participation and implementation.
Requirements, several short papers and a final exam.
Group C
Hour

W. Brown

PSCI 240 Religion and Law (Same as Religion 234)
(See under Religion for full description.)
Groups C and D

PSCI 243 (S) Socialist Regimes: Politics in Eastern Europe
This course examines contemporary Eastern European politics, especially the consolidation of Eastern European regimes in the decade after World War II; the economic, political and legitimation problems that have confronted them since; the influence of the Soviet Union on Eastern European regimes, and the latitude remaining to them; and the way the various regimes deal with enduring nationality problems. Although all of Eastern Europe will be considered, the course deals primarily with Hungary, Poland and Yugoslavia.
Requirements, one term paper and final examination.
Group D
Hour

MacDonald

PSCI 246 (F) Soviet Government: Problems of Political Change in Communist Systems
A study of the domestic political system in the Soviet Union, including its theoretical underpinnings. Special emphasis on questions of change and continuity since Stalin's death. Analysis of key historical experiences that have shaped the Soviet system from a perspective that emphasizes the interaction of power and ideas (from Marx, Lenin and Stalin) in a process of forced social change.
Lecture and reading course, hour and final examinations only.
Group D
Hour

Baker

PSCI 248 (F) Politics in the Far East
A study of recent political developments in the Far East. Major emphasis is placed on Japan under American occupation and after, the political revolution in China and its consequences and developments in contemporary India. This area is then examined with special reference to American and Russian roles in East Asia.
Requirements, two hour examinations or one hour examination and one medium length paper.
Sophomore and junior course. Group D
Hour

Greene

[PSCI 249] Latin American Politics (Not offered 1985-86.)
A comparative analysis of Latin American political and economic development from colonial times to the present. We will first focus on those factors which have stood in the way of achieving democracy, independence, and self-sustained economic growth, paying special attention to the role of Iberian, corporatist ideas, class, neocolonialism and
Political Science

world economy. We will then compare and assess the relative efficacy of reformist and revolutionary strategies of social change.
Requirements, midterm, research paper and final examination.  
Group D
Hour

PSCI 310(F) Psychology and Politics

An investigation into the links between political activity such as voting, political activism, leadership, mobilization and propaganda and psychological processes, such as cognitive processing, socialization, symbolic interaction, dissonance and balance theories. Substantively the course examines the effects of psychological forces in liberal-democratic societies.
Requirements, final examination and a term paper.
Junior and senior course.  Group A  Prerequisite, Political Science 101.
Hour

PSCI 311(S) The Politics of Sex Roles: Women, Men and Political Behavior (Not offer 1985-86.)

The “gender gap” in politics—a significant divergence between men and women in their political perceptions and perspectives—has become a much-noted phenomenon in American politics in the 1980’s. However, differences between men and women in their political behavior are far from new. This course examines the impact of gender and sex roles upon political behavior and, consequently, upon political outcomes in the United States. We consider the similarities and differences in the political values, beliefs and activities of women and men; the psychological and sociological barriers which have interfered with women’s political involvement; the ability of women to accommodate themselves to membership in male dominated political elites; the development of the women’s movement as a political force, and the responses to it among both mass publics and elites. In general, the course is concerned with the implications of integrating women into American political life.
Requirements, one major term paper based on original research; final examination.
Group A  Prerequisite, one course in Subfield A.
Hour

PSCI 313 (formerly 411) American Political and Intellectual Leadership (Will not be offered 1986-87.)

This course develops theories of leadership and analyzes them in terms of values, conflict, purpose and outcome. The New Deal and Fair Deal, World War II and the Cold War, the social revolts of the 1960’s and 1970’s and the Kennedy, Johnson and Reagan kinds of presidential leadership may be analyzed in terms of leadership theory. The ultimate goal of the course is to identify and analyze the processes and institutions of intellectual and political leadership and the role of such leadership in theories of historical causation.
Requirement, a substantial paper.
Group A  Enrollment limited to 12 with precedence given to Senior Majors in subfield A, but open to other Political Science Majors as well as Majors from other Departments by permission of the instructor.
Hour

PSCI 314  Mass Media in American Politics

An investigation of the impact of the mass media upon the American political process. The course considers how the media decide what is and is not “news,” define political events for both masses and elites, influence the electoral process, and political decisions, and shape popular conceptions of the United States and the world. Throughout the overriding theme is the dilemma of corporate control of information in—and hence the prospect of private manipulation of—the American democracy.
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Requirements, research paper of moderate length; regular monitoring of at least one mass medium and a final exam.

Group A

Hour

PSCI 315(S)  The Politics of U.S. Foreign Policy Making (Not offered 1985-86.)
An analysis of the struggle to formulate and control American foreign policy. The private interests, bureaucratic politics, congressional influences and the flawed coordinating devices of successive presidential administrations are examined in relation to issues ranging from military intervention to foreign aid, to negotiation, to legislation and appropriation. What is the optimal pattern of administrative relationships for generating and sustaining an effective U.S. foreign policy?
Requirements, midterm and final examinations and optional research paper.
Groups A and B  Prerequisite, Political Science 101 or 102.

Hour

PSCI 317(S)  Environmental Law (Same as Environmental Studies 317)
An introduction to the rapidly expanding process and body of law related to the environment. Emphasis is on an understanding of the opportunities and limitations of law in resolving and establishing environmental related public policy. The course includes a survey of both the process and substance of judicial law, legislation, administrative law, and emerging forms of international law, dealing with pollution control, environmental impacts and natural resource exploitation. Basic legal doctrines such as property rights and public trust are examined.

Group A

Hour

PSCI 318  Civil Liberties in the United States
A study of civil liberties in American society, emphasizing both theory and practice. Judicial decisions, historical materials, the works of political philosophers and contemporary social criticism are studied in an attempt to enhance the understanding of basic justifications of our civil liberties, and the factors and forces that restrict or enlarge them.
Requirements, hour and final examinations and a moderate length paper.
Group A  Prerequisite, Political Science 101 or 200 level Group A course.

Hour

PSCI 322  The Nation State and Foreign Policy (Not offered 1985-86.)
This course investigates the diplomacy of a variety of foreign states in the modern era. We examine major powers in Europe and East Asia, regional states on other continents (e.g., Brazil and India) and the stresses that confront smaller states. This includes a review of domestic factors and ideological forces that help shape national foreign policies. We ask whether recurrent patterns and similarities emerge from such comparative observations.
Requirements, one class presentation, one hour examination and one term paper on the foreign policy of a selected country.
Groups B and D  Prerequisite, Political Science 102 or 200 level Group B course.

Hour

PSCI 325  Diplomacy and Negotiation
The evolution and current problems of diplomacy and the process and techniques of international negotiation are examined. Essays and commentaries, historical case studies, written analytical exercises, simulation and student research are utilized to this end. Occasional lecture and regular class discussion. Particular emphasis on U.S. diplomacy.

Open to sophomores.  Group B  Prerequisite, Political Science 102.

Hour
Political Science

PSCI 333 Analytical Views of Political Economy (Same as Political Economy 301)
Political economy deals with the creation and distribution of values within a society, and the effects that the economy and the policy have on each other. What one sees in this field depends on what one looks for, i.e., on the analytic view adopted. This course emphasizes the classical laissez faire theory of Adam Smith, the dialectical theory of Karl Marx and the humanitarian liberalism of J.S. Mill and J.M. Keynes; and observes how interpretations of contemporary political economists are shaped by these alternative theoretical frameworks.
Group C Prerequisites, Political Science 101 and Economics 101.
Hours

PSCI 334 Issues in Political Philosophy
An intensive study of selected issues in political philosophy. The focus this year is upon recent theories of distributive justice. Among the works to be read are John Rawls, A Theory of Justice; Robert Nozick, Anarchy, State and Utopia; and Michael Walzer, Spheres of Justice. Among the topics to be considered are the Marxist critique of justice; equality of opportunity and affirmative action; and international distributive justice.
Requirements, midterm (take-home) exam and a substantial research paper.
Prerequisites, Political Science 103 or permission of the instructor.
Group C

PSCI 336 The Social and Political Philosophy of Marxism (Not offered 1985-86.)
Based upon the most significant works of Marx, this course follows the development of his social and politico-economic thought. After assessing Marx’s relationship to the philosophies of Hegel and Feuerbach, the discussion focuses on the nature of historical materialism and on Marx’s theories of alienation, ideology, capitalist contradictions, the state and revolution. In conclusion, the development of marxism in the twentieth century is exemplified through the writings of Antonio Gramsci and contemporary Marxists.
Requirements, a term paper and final examination.
Group C Prerequisite, Political Science 103 or Philosophy 101 or permission of the instructor.
Hour

PSCI 337[S] Marxist Thought and Controversy in the Twentieth Century
This course provides an introduction to the political and philosophical thought of some of the most creative Marxist theorists of our century. But deriving, as they did, from the vast and ambiguous legacy of Marx and Engels and reacting to the often radically different historical circumstances in which they found themselves, these theorists, their ideas and actions generated bitter controversies and repeated crises within the Marxist movement. The learning experience in this course includes both a critical reading of the major theoretical contributions to contemporary Marxist thought and the exploration of some of the historically most fateful controversies. The theorists to be studied are Lenin, Luxemburg, Lukacs, Gramsci, representatives of the “Frankfurt School” and the Yugoslav “Praxis Group” and Althusser. The political/theoretical disputes provide the topics for the students’ term papers.
Requirements, a term paper and final examination.
Group C Prerequisite, some prior acquaintance with the theoretical work of Karl Marx or permission of the instructor.
Hour

PSCI 338(F) American Legal Philosophy
An analysis of the problems, perspectives and controversies of American legal thought with particular emphasis on constitutional jurisprudence. The approaches include im-
Political Science

Important statements of the positivist, sociological, natural law and realist schools of jurisprudence. Students become acquainted with the contributions of such crucial figures as Marshall, Pound, Holmes, Cardozo, Frankfurter, Ely and Dworkin. Case materials illustrate the various perspectives on the law. An important object of the course is to consider and evaluate the application of the contrasting approaches to actual problems of constitutional adjudication. Among the broader issues discussed in the context of these considerations are the legal enforcement of morality, the moral grounds for disobedience to law, the nature and limits of judicial law-making and the rationale for legal punishment.

Requirements, midterm and final examinations and a short paper.

Groups A and C

Hour

Jacobsohn

PSCI 339 Interpretation and the Human Sciences (Same as History of Ideas 401)
The course will explore recent disputes about the contribution of hermeneutic philosophy to the activity of interpreting received texts and the clarification of the human sciences. The inquiry will begin with an examination of Hegel's analysis of the relationship between philosophy and history and proceed to a consideration of contemporary thinkers such as Gadamer, Habermas, Derrida, Foucault, Strauss, Skinner, Pocock and Taylor. Among the topics that will be discussed are the following: the nature and conditions for the possibility of historical understanding; validity in interpretation and the author's intention; the text and the boundaries of its context; the interpretive circle, hermeneutical nihilism and the authority of traditions; and hermeneutics and the critique of ideology.

Group C

Hour

Assefa

[PSCI 343 Settler Colonialism: Problems and Conflicts (Not offered 1985-86.)]
This course will deal with the distinctive nature and conflicts of settler colonialism. After considering the differences between settler and other forms of colonialism, we will deal with four discrete cases of settler colonialism—Northern Ireland, South Africa, Algeria and Israel—in hope of determining whether they generate characteristic problems, conflict and politics. We will pay particular attention to relations between the native and settler populations, the way threats to settlers unite them in intransigence, and the possibility of mutually satisfactory resolutions to political disputes.

Requirements, one term paper and final examination.

Group D

Hour

MacDonald

PSCI 347(S) Domestic Politics of the Middle East
An inquiry into the character and meaning of domestic political life in the Middle East, with primary focus on the Arab world. Selected political communities examined intensively on the local, regional and national levels. Problems of methodology explicitly considered, including the contrasting of conflict and equilibrium approaches and the evaluation of a variety of methodologies related to them.

Discussion format, research paper required.

Group D Prerequisite, one Political Science course in Group D.

Hour

Baker

[PSCI 348 Selected Topics in Soviet Politics (Not offered 1985-86.)]
An intensive study of a limited number of central problems, substantive and methodological, in Soviet domestic and international politics. While grounded in the Soviet experience, the topics discussed (such as the sources of legitimacy and consensus,
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the nature of the ideological and institutional contexts of political dynamics, and the character of change and stability) have a generalized importance for the comparative analysis of domestic and international politics.
Discussion format, research paper required.

*Groups D and B* Prerequisite, one Political Science course in either Group D or B or previous coursework in the Russian area.

*Hour*

PSCI 397, 398  **Independent Study**
Open to upperclasspersons with permission of the Department.

**SENIOR COURSES**

**PSCI 401(S)  Seminar in American Politics**
The focus this year is on how well the political institutions of the United States and the political behavior of Americans meet the standards of a democratic society.
Prerequisites, distribution requirements, 206 and two Group A electives. Political Science Majors in Subfield A have precedence.

*Group A*

*Hour*

**PSCI 402  Seminar in International Relations**
The focus this year is on power and conflict in the international relations of America, China, India and Russia.
Requirements, class presentation, analysis paper.
Prerequisites, distribution requirements, 206 and two Group B electives.

*Group B*

*Hour*

**PSCI 403(S)  Seminar in Political Philosophy**
The focus this year is on the nature of political rationality, authority and power in the modern capitalist nation-state. The following kinds of questions will be explored: What distinguishes this state from all previous incarnations of liberal and/or capitalist states? How have state and economy become so thoroughly welded together in the modern age? What is the role and power of "bureaucratization" in this process? How does a "liberal" state manage or direct a capitalist economy which is no longer freely competitive? What kind of political rationality inheres in this state? What is the nature of freedom and action under these conditions? What are the implications for individual identity and consciousness? We will make this exploration via social as well as political theory, political economy and psychoanalytic ("Frankfurt School") theory. Readings include: Marx, Weber, Arendt, Adorno, J. O'Connor, Marcuse and Habermas.
Requirements, one short paper and one long paper.
Open to qualified non-Majors with permission of the instructor.

*Enrollment limited to 15.  Political Science Senior Majors in Subfield C have precedence.
Prerequisites for Majors, distribution requirements, 206 and two Group C electives.*

*Group C*

*Hour*

**PSCI 404  Seminar in Comparative Politics**
The focus this year will be on revolution. We will discuss two or three revolutions (perhaps the Mexican, Soviet and Vietnamese) in light of several major theories. We will be concerned with what the word "revolution" means, examining revolutions comparatively as well as discretely, with the conditions promoting revolutions and counter-revolutions, with the logics revolutions follow and with the problems confronting revolutions after the seizure of power.
Requirements, oral presentations and research paper.  

Enrollment limited to 15. Open to qualified non-Majors with permission of the instructor. Senior Majors in Subfield D have precedence.  

Prerequisites for Majors, distribution requirements, 206 and two Group D electives.  

Group D  

Hour  

PSCI 481-W33-482 Advanced Study in American Politics  

A year of independent study under the direction of a member or members of the Political Science faculty, to be awarded to the most distinguished candidate based upon competitive admissions. Candidates submit a research proposal to the department prior to May 1 of their junior year. The successful candidate, designated the Sentinels of the Republic Scholar, receives a substantial research stipend to cover costs associated with the proposed project.  

Admission is awarded on the basis of demonstrated capacity for distinguished work and on the proposal's promise for creative contributions to the understanding of topics on: the federal system of government; the economic system; civil liberties; state, local and federal relationships; or the philosophical foundations or problems of American constitutional democracy. Proposals that deal with these topics from a variety of perspectives (such as domestic, comparative, international or philosophical) are welcome. Anyone with a prospective proposal should contact the department chair for further guidance.  

PSCI 491-W30 Senior Essay (Honors Route 1)  

The Senior Major, having applied for and been accepted into the Honors program during the second semester of the junior year, devotes a semester and the Winter Study period to an inquiry in the student's subfield of specialization and submits the results of the inquiry in the form of an extended essay to the departmental Honors Committee for evaluation.  

Prerequisites, Political Science 103 and 206 and at least one elective course in the Major's subfield specialization. (Specializers in Subfield D must also have previously taken either Political Science 304 or the second Subfield D specialization elective.)  

PSCI W30-492 Senior Essay (Honors Route 1)  

Same as Political Science 491 but offered in the second semester.  

PSCI 493-W31-494 Senior Thesis (Honors Route 2)  

The same as Political Science 491-W30 or W30-492, only extended over both semesters and the Winter Study period and requiring as a final product a more comprehensive and longer essay.  

PSCI 495-W32 Individual Project  

With the permission of the Department, open to those Senior Majors who are not candidates for Honors, yet who wish to complete their degree requirements by doing research—rather than taking the Senior Seminar—in their subfield of specialization. The course extends over one semester and the Winter Study period. The research results must be presented to the faculty supervisor for evaluation in the form of an extended essay. Prerequisites, Political Science 103 and 206 and at least one elective course in the Major's subfield specialization. (Specializers in Subfield D must also have previously taken either Political Science 304 or the second Subfield D specialization elective.)  

PSCI W32-496 Individual Project  

The same as Political Science 495 but offered in the second semester.  

PSCI 497, 498 Independent Study  

Open only to Senior Majors with permission of the Department.
PSYCHOLOGY (Div. II)
Departmental Staff for 1985-86

Chair: Professor THOMAS E. Mc Gill

Professors: CRAMER, CRIDER††, GOETHALS†, HASTINGS, Mc GILL. Associate Professors: KAVANAUGH, SOLOMON. Assistant Professors: CROYLE, GREENDLINGER, Heatherington, KASSIN*, KELLEY, B. STEPHENS. Part-time Lecturer: H. Smith.

MAJOR PROGRAM
(1) Psychology 101 Introductory Psychology
(2) Psychology 201 Experimentation and Statistics
(3) Three 200 level courses, with at least one from each of the following groups.
   Group A Psychology 203 Principles of Learning
       Psychology 211 Animal Behavior: Causation and Development
       Psychology 212 Brain and Behavior
       Psychology 221 Memory and Cognition
       Psychology 223 Sensation and Perception
   Group B Psychology 232 Developmental Psychology
       Psychology 241 Personality
       Psychology 242 Social Psychology
       Psychology 252 Psychological Disorders
(4) Three 300 level courses from at least two of the areas listed below:
   Area 1: Biological Psychology (courses with middle digit 1)
   Area 2: Cognitive Psychology (courses with middle digit 2)
   Area 3: Developmental Psychology (courses with middle digit 3)
   Area 4: Personality and Social Psychology (courses with middle digit 4)
   Area 5: Clinical Psychology (courses with middle digit 5)
   At least one of these courses must be from among those carrying the designation Empirical Project.
(5) Psychology 401 Perspectives on Psychological Issues
   With the approval of the department, students may substitute two courses in associated fields for one of the required 300 level courses. Students must apply in writing for this approval.

THE DEGREE WITH HONORS IN PSYCHOLOGY
Students who are candidates for Honors need take only two 300 level courses from two different areas, but they must enroll in Psychology 493-W31-494 and write a thesis based on original empirical or theoretical work. Presentation of a thesis, however, should not be interpreted as a guarantee to a degree with Honors. Guidelines for pursuing the degree with Honors are available from the department.

PSYCHOBIOLOGY
Psychology or Biology majors may emphasize studies in the area of Psychobiology. Interested students are encouraged to consult members of either Department in choosing courses. Recommended courses include Biology 217 Primate Biology and Behavior; Biology 215 (formerly 212F) Animal Behavior: Evolution and Function; Biology 351 Neurobiology; Psychology 212 Brain and Behavior; Psychology 211 Animal Behavior: Causation and Development; Psychology 203 Principles of Learning; Psychology 311 Neural Basis of Learning and Memory; Psychology 312 Issues in Comparative Psychology (Deleted 1985-86). Other courses may be selected according to the student's interests.

COURSE NUMBERING RATIONALE
As is the case in all departments, the first digit of a Psychology course number indicates the relative level of the course. Where appropriate, the second digit corresponds to the Areas listed above.
PSYC 101(F,S)  Introductory Psychology
An introduction to the major sub-fields of psychology: biological, cognitive, developmental, personality and social and psychological disorders and treatment. The course aims to acquaint students with the major methods, theoretical points of view and findings of each sub-field. Important concepts are exemplified by a study of selected topics and issues within each of the five areas.
Laboratory demonstrations, two hour exams, final exam.

Hour 101(F)
101(S)

Members of the Department

PSYC 201(F,S)  Experimentation and Statistics
This course is an introduction to the basic principles of research in psychology. We focus on how to design and execute experiments, analyze and interpret the results, and write research reports. Students conduct a series of experiments in different areas of psychology (e.g., social, personality, cognitive, perceptual, sensory) which illustrate basic design and methods of analysis. Requirements, four short papers, one long paper, midterm and final.
Prerequisite, Psychology 101.
Hour 201(F)
201(S)

First semester: Kelley
Second semester: B. Stephens

[PSYC 203  Principles of Learning (Not offered 1985-86.)
This course presents theories and models of learning in both animals and humans and considers the importance of such theories for an understanding of behavior. The relevance of research with laboratory animals to the study of human learning and memory is discussed. Practical applications of learning theories, including behavior modification, are also examined.
Satisfies one semester of Division III requirement.
Requirements, hour test, term paper, laboratory project and a final examination.
Open to freshmen with permission of the instructor.  Prerequisite, Psychology 101.
Hour Lab. section: McGill]

PSYC 205 (formerly 335)  Educational Psychology
A survey of the major issues in educational psychology. Discussion focuses on the contributions of psychological research and theory to the understanding and improvement of the teaching-learning process. Topics include an analysis of factors influencing school climate; a study of schooling from cognitive, social and behavioral perspectives; assessment of individual differences; and effective, research-based teaching strategies. Each student participates in a practicum program involving three hours per week in a local elementary school. Primarily for students contemplating teaching careers.
Requirements, practicum project reports, final exam.
Prerequisites, Psychology 101. Enrollment limited.
Hour H. Smith

PSYC 211(S)  Animal Behavior: Causation and Development
An examination of animal behavior with emphasis on problems of immediate causation and ontogeny. Introductory material covers the history and methods of the study of animal behavior. Topics include the nature-nurture controversy, behavior genetics, physiological control of behavior, critical periods and imprinting, sensory processes, communication, learning and motivation.
Two hour examinations and a final examination.
Satisfies one semester of Division III requirement.
Open to freshmen. Prerequisite, Psychology 101 or Biology 101 or permission of the instructor.
Hour McGill
PSYC 212 Brain and Behavior
A study of how the brain controls behavior. Topics include a survey of the basic structure and function of the nervous system including neuroanatomy, neurophysiology and neuropharmacology, sensory systems, learning and memory, language, consciousness, biological basis of psychological disorders and assessment of human brain damage. Two hour examinations, a final examination and optional paper; laboratory demonstrations and exercises.
Satisfies one semester of Division III requirement.
Open to freshmen. Prerequisite, Psychology 101 or Biology 101.

PSYC 221 Memory and Cognition
A survey of the experimental analysis of the mind. Topics include memory and forgetting, problem solving and creativity, imagery, attention, reasoning and learning of complex skills, including language. Special emphasis on the study of memory and thinking in everyday life. Lectures will be interspersed with frequent laboratory demonstrations. In addition, students will engage in original research. Laboratory work, midterm and final examinations.
Prerequisite, Psychology 101 or permission of the instructor.

PSYC 223 Sensation and Perception
A study of the ways basic sensory and perceptual processes influence human experience, focusing mainly on vision, audition and visual perception. Topics include sensory physiology, color and form vision, motion perception, sound localization, pitch perception, illusions, perceptual constancies and developmental aspects of perception. These topics provide the basis for discussion and evaluation of general theoretical orientations to the study of perception, e.g., empiricism, nativism and direct perception.
Requirements, two hour exams, final exam.
Prerequisites, Psychology 101 or Biology 101.

PSYC 232 Developmental Psychology
An introduction to the study of human growth and development from infancy through adulthood. Topics for discussion include perceptual and motor development, language acquisition, memory and intellectual development, and social and emotional development. These topics form the basis for a discussion of the major theories of human development, including social learning, psychoanalytic and cognitive-developmental models.
Requirements, two hour exams, final exam.
Open to freshmen. Prerequisite, Psychology 101.

PSYC 241 Personality
A survey course with critical evaluation of the major theories of personality, including psychoanalytic and psychoanalytic-related (e.g., Freud, Jung, Adler), learning and social learning (Skinner, Bandura, Rotter), humanistic (e.g., Maslow, Rogers) and trait (e.g., Cattell, Eysenck) theories. Throughout the course, we will examine the characteristic personality assessment techniques and research areas which have emerged from each theory.
Requirements, two hour exams and a final exam.
Prerequisite, Psychology 101 or permission of the instructor.

PSYC 242 Social Psychology
A survey of theory and research in social psychology. Topics include conformity, attitudes and attitude change, prejudice, aggression and interpersonal attraction. Special
Psychology

attention is given to topics such as political campaigning, advertising and indoctrination. Requirements, two one hour exams, final exam. 
Open to freshmen. Prerequisite, Psychology 101.

GRENDELINGER

PSYC 243 (formerly 209S) Public Opinion and Political Behavior (Same as Political Science 211)
(See under Political Science for full description.)

PSYC 252 Psychological Disorders
A study of the major forms of psychological disability, emphasizing changing conceptions of their nature and treatment. Analysis and application of historical and contemporary models of therapy and abnormal behavior, including psychoanalytic, biomedical, behavioral, humanistic and cognitive perspectives. Among the many disorders discussed are general anxiety, phobia, obsessive-compulsive disorder, depression, drug abuse, anorexia and bulimia, partner and child abuse, sexual disorders and schizophrenia.
Requirements, two hour exams, final exam and optional paper.
Open to freshmen. Prerequisite, Psychology 101 or permission of the instructor.

HOUR

CROYLE

PSYC 311 Neural Basis of Learning and Memory
A survey of the current work being conducted on brain mechanisms of learning and memory in both animals and humans. The topic is approached from several viewpoints including: possible brain systems involved, electrophysiological, biochemical and anatomical changes which may accompany learning, the role of drugs and hormones in modulating memory, genetic factors, the effects of brain damage and neuropathology (e.g., Alzheimer's disease and Korsakoff's syndrome) on human memory and amnesia. The initial part of the course will consist of a survey of the various areas. The latter part of the course will be comprised of student presentations.

The laboratory portion of the course will consist of a group project in which the class designs an experiment, acquires the necessary laboratory skills to conduct the experiment and analyzes and assesses the results.

Grades are based on written/oral presentations and laboratory work.
Prerequisite, Psychology 212 or permission of the instructor. Empirical Project

HOUR

SOLOMON

[PSYC 324 Cognition and Personality (Not offered 1985-86.)
A study of cognition within the broader context of human experience. In particular, the course considers the influence of factors such as mood and emotion, age, personality style, self-concept, and social psychological contexts on a wide variety of cognitive processes, including remembering and forgetting, problem solving, perceiving and attending. Students participate as experimenters and subjects in several laboratory demonstrations and conduct original research.
Requirements, two exams and a written/oral report of research.
Prerequisite, Psychology 221, 241 or 252 or permission of the instructor. Empirical Project

HOUR Lab. Sections:

KELLEY

PSYC 331 Language Development
A discussion of the acquisition and development of language in children. This course emphasizes the psychological questions of how language originates, the role that parents and peers play in the development of language, how language is used by children in various contexts and the applied problems of language in the deaf and the development of reading skills. Students working alone or in pairs will design and complete an empirical project.
Requirements, two hour tests, laboratory project.
Prerequisite, Psychology 232. Empirical Project

HOUR Lab. section:

HALL
Psychology

PSYC 333  Child Study
This course offers first-hand experience in the observation and study of children. Students learn observational skills in a nursery school setting, as well as having an opportunity to conduct an original experimental study. Topics include children’s social behavior, play, fantasy, learning and memory.
Two discussions and one laboratory meeting per week.
Requirements, hour test, project, final examination.
Prerequisite, Psychology 232.  Empirical Project

Hour
Lab. section: Cramer

[PSYC 334  Infancy (Not offered 1985-86.)]
A study of current methodological and substantive issues in infant behavior and development. The course explores conceptual and empirical issues in infant perceptual, cognitive, social and personality development. Students obtain direct experience with experimental and observational techniques that psychologists employ to investigate topics such as infant form perception, infant learning and memory, parent-infant interactions and temperament. Also, in either an individual or a collaborative effort, students design and conduct an original research project.
Requirements, two hour tests, short papers, written/oral report.
Prerequisite, Psychology 232 or consent of the instructor. Empirical Project

Hour

B. Stephens]

PSYC 335  Adolescent Psychology
The growth and transformation of basic psychological processes during the adolescent period of development, approximately ages 11 through 22. Topics include cognitive development; the influence of culture; biological changes, including puberty and their implications; sexuality; parent-adolescent relationships; morality; alienation; and psychological disturbance in adolescence. Emphasis on research data and methodological issues, as compared to those in other eras of the life span.
Requirements, hour exam and final exam.
Prerequisite, Psychology 241 or 232.

Hour

Hastings

PSYC 337 (formerly 354)  Childhood Disorders and Therapy
A consideration of the relationship between personality development and the types of problems specific to children, as found in school and clinical settings. Disorders include phobias, learning disabilities, childhood autism and schizophrenia. Discussions of therapy include non-directive play therapy, behavior modification and contemporary psychoanalytic approaches.
Requirements, hour test, final exam and term paper.
Prerequisites, Psychology 232 and 241.

Hour

Cramer

[PSYC 341  Race Relations (Not offered 1985-86.)]
A study of the development and modification of racial intolerance in the United States. Emphasized is a consideration of the psychological variables germane to the processes of attitude growth and change. The course also deals with practical means by which the incidence and strength of racial tension may be reduced. The content of the course is approached from the perspectives of both blacks and whites.
Evaluation is based on a midterm and final exam plus a semester paper reporting on individual project assignments.
Prerequisites, Psychology 101 and one other Psychology course.

Hour

Hastings

[PSYC 342  Social Perception (Not offered 1985-86.)]
A study of the psychological processes by which people come to know each other. The course focuses on the ways individuals utilize social information to interpret and pre-

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dict the behavior of others. Topics include impression formation, attribution, social judgment and the causes and consequences of expectancies and bias. Models of rational and irrational social perception will be compared. Requirements, two one hour exams, final exam, empirical project. Prerequisite, Psychology 252 or permission of the instructor. Hour

PSYC 343  The Psychology of Human Sexuality
An in depth study of theory and research on physiological, personality and social causes of: sexual arousal, fantasy and responsiveness; gender development; sexual preference; contraception and pregnancy; sexual diseases and dysfunctions; and coercive sexual behavior. Requirements, two hour exams and a final exam. Prerequisite, Psychology 241 or 242. Hour

PSYC 344  Individual Differences in Personality
This seminar deals with historically important topics in the study of individual differences and consistency in personality. Included are demographic variables such as gender and age, and personality dimensions such as aggression, attraction, authoritarianism, achievement motivation, introversion-extraversion and power and control. Requirements, two hour exams and an empirical project. Prerequisite, Psychology 241 or 242. Empirical Project

[PSYC 346 (formerly 353S)  Personality Assessment (Not offered 1985-86.)
This course focuses on the study of individual lives, as known through published autobiography, observation and psychological tests. In attempting to understand these lives, we will also want to understand the approaches used by psychologists to assess human personality. Among the topics to be considered are creativity, sex role orientation, achievement striving and psychodynamic defenses. Students will have firsthand personal experience in using techniques of personality assessment. Requirements, hour test, projects, final exam. Prerequisite, Psychology 241 or 343.

[PSYC 347  Social Influence (Not offered 1985-86.)
A social psychological study of deliberate attempts to control opinions and behavior. Topics include persuasion and the use of propaganda, social power, minority influence, conformity and resistance to persuasion. Contemporary theories and research are applied to political coercion, advertising and consumer psychology, social movements and cult phenomena. Each student conducts original research. Requirements, two hour exams and a written/oral report of empirical project. Prerequisite, Psychology 252 or permission of the instructor. Empirical Project

PSYC 351  Communication and Psychopathology
A study of communication patterns in normal human interaction (e.g., marital communication), psychopathology (e.g., adolescent family crises and schizophrenia) and psychotherapy (e.g., family therapy). The course emphasizes a "systems" or "interactional" approach to human communication, traces its evolution from interdisciplinary roots in mathematics, cybernetics, anthropology and psychiatry and compares it to other psychological perspectives. The course will also focus on methodological issues in the measurement of human social interaction and in the testing of theoretical propositions derived
from a systems perspective. Each student will conduct an empirical project which addresses a question of interest in the area of human interaction. Requirements, two hour exams. Prerequisites, Psychology 101 and 241, 242 or 252 or permission of the instructor. Empirical Project

Hour

PSYC 352 Clinical Psychology
A study of the history, theory, methods and professional issues in psychotherapy and the fields of community and clinical psychology. In addition to presenting fundamental material in this area, the course aims to enable students to apply their experience in academic psychology to field settings and to explore their own educational and occupational goals. The course includes a supervised field work placement arranged by the instructor, in a social service or mental health agency and will be conducted in a seminar format. Requirements, two hour exams, class presentation, final paper on field work experience. Prerequisites, Psychology 252 or its equivalent and permission of the instructor. Enrollment limited.

Hour

PSYC 354 Learning Disabilities
A study of the language (e.g., reading and writing), learning (e.g., arithmetic) and attentional problems of school age children. This course focuses on how learning-disabled children are identified, what remedial steps are possible following diagnosis and what is known about theoretical basis of particular disabilities. The course emphasizes the importance of identifying specific disabilities and tailoring remedial programs to the needs of the child. Current assessment techniques and modes of intervention are discussed in detail. Students read, discuss and debate the cognitive, neuropsychological and educational approaches to the study of learning disabilities. Requirements, hour test, final exam, term paper and oral presentation of term paper. Prerequisite, Psychology 232 or permission of the instructor.

Hour

PSYC 355 Juvenile Delinquency
An intensive look at juvenile delinquency as a prevalent social problem. Covered are major theories and related empirical evidence regarding the etiology of juvenile delinquent behavior. Current procedures for the control and prevention of delinquency are also studied. The class meets once a week (Tuesday) at the regularly scheduled hour. In addition, each student makes a weekly half-day visit to The Berkshire Farm Center and Services for Youth located in Canaan, New York. The purposes of the field trips are (1) to observe first hand the structure and daily operations of an institution for juvenile delinquent boys, (2) to have direct contact with the youngsters themselves, and (3) to explore with staff members the functions of this institution as they relate to the Farm's therapeutic program. During the final two weeks of the semester, each student prepares a written report on a selected aspect of juvenile delinquency, and in class presents an oral summary of same. A midterm, no final exam. Prerequisite, Psychology 242 or 252 or permission of the instructor. Enrollment limited to 20 students.

Hour

PSYC 356 Stress and Behavioral Medicine
This course considers recent developments in our understanding of stress and its relationship to physical and mental health. Topics include the nature of stress, the stress-illness relationship, psychosomatic disorders, pain, biofeedback and other psy-
Psychological interventions for managing medical conditions. Laboratory projects demonstrate psychophysiological and biofeedback principles.

Requirements, three laboratory reports, midterm and a final exam.
Prerequisite, Psychology 242 or permission of the instructor.

Hour Lab. section: Crider

**PSYC 397, 398 Independent Study**
Open to upperclassmen with permission of the Department.

**PSYC 401 Perspectives on Psychological Issues**
This course deals with controversial psychological topics of both historical and current interest. The course will be conducted in a debate format. For each topic, the entire group will initially meet with the three instructors to introduce the topic. The class will then divide into three sections to prepare the debate and to design and conduct research projects. The debates will use both library research and data generated from empirical projects. Planned topics for this semester are the nature of intelligence and sex differences.

Requirements, participation in class discussions and debates, one position paper, one empirical project and report, log of notes on readings.

*Required course in the major.*

Hour Croyle, Solomon, B. Stephens

**PSYC 493-W31-494 Senior Thesis**
Independent study and research for two semesters and a winter study period under the guidance of one or more members of the department. After exploring the literature of a relatively specialized field of psychology, the student will design and execute an original empirical or theoretical research project, the results of which will be reported in a thesis. Detailed guidelines for doing a thesis are available from the Department.

Prerequisite, permission of the department.

QUANTITATIVE STUDIES

*Co-ordinator, Robert D. Kavanagh*

Advisory Committee: Professors: Art (Biology), Chang (Chemistry), Kozelka (Mathematical Sciences), Pierce (Physics). Assistant Professor: Fairris (Economics).

**QUST 100(F)** An introduction to the mathematical skills required in selected natural and social science courses. This course begins with a review of algebra and includes basic analytic geometry, functions, graphing and simple trigonometry. The course is taught in small sections and emphasizes problem solving rather than rote memorization.

Quantitative Studies 100 is a prerequisite for Astronomy 111, Biology 101, Chemistry 101-102, Mathematics 107 and Physics 111, 131 and 141, for any student who fails to demonstrate basic proficiency on a diagnostic test administered at the beginning of the academic year. Enrollment in Quantitative Studies 100 will be limited to students selected by the diagnostic test.

The Department of Mathematical Sciences urges students who successfully complete Quantitative Studies 100 to consult with the department placement officer before enrolling in any mathematical science courses.

**Hours**

**Beginning with the Class of 1989.**

Cooley

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RELIGION (Div. II)
Departmental Staff for 1985-86

Chair, Professor H. Ganse Little, Jr. 
Acting Chair, Professor Norman R. Petersen, Jr.

Professors: Eusden, Little, Petersen, Taylor. Assistant Professors: Darrow, Haberman, J. Wegner.

MAJOR PROGRAM
The major program in Religion is designed to perform two related functions: to expose the student to the methods and issues involved in the study of religion as a universal phenomenon of psychological, sociological and cultural/historical dimensions; and to confront students with the beliefs, practices and values of specific religions through a study of particular religious traditions. It is a program that affords each student an opportunity to fashion his/her own sequence of study within a prescribed basic pattern constructed to ensure both coherence and variety. It consists of at least nine semester courses as follows:

Required sequence courses
- Religion 101 Introduction to Religion
- Religion 301 Psychology of Religion
- Religion 302 Religion and Society
- Religion 401-402 Issues in the Study of Religion

(For 1985-86 senior majors in Religion will take Religion 402 in the form of Religion 444.)

Elective courses
Four additional courses in Religion to be selected in such a way that at least one course is taken in both the Western and non-Western traditions.

The listed prerequisites will determine in part the manner in which elective courses can be chosen. Students will construct their sequence in consultation with departmental advisers and subject to their approval.

Students are advised to elect additional courses in related fields (e.g., psychology, sociology, anthropology, art, history, philosophy) in order to gain a clearer understanding of the social and cultural contexts in which religions appear.

For those who wish to go beyond the formally listed courses into a more intensive study of a particular religious tradition, methodological trend or religious phenomenon (e.g., ritual, symbol formation, mysticism, theology, etc.) there is the opportunity to undertake independent study or, with the approval of the department, to pursue a thesis project.

THE DEGREE WITH HONORS IN RELIGION
The Degree with Honors in Religion may be awarded either on the basis of independent study and a thesis, or on the basis of undertaking a special concentration of study staged around a cluster of three courses which are programmatically related to one another, substantively or in terms of the methodologies on which their inquiry depends.

The thesis option entails a three-semester program of independent study culminating in a thesis as follows:
- required and elective sequence courses;
- one semester of independent study in Religion in the junior year;
- Religion 493-494 Senior Thesis in the senior year.

The concentration of study in a cluster of three related courses may be patterned according to the following guideline:
- If the program of study falls wholly within the major, one of the courses (most likely an independent study project) will be specifically designed to coordinate
the pattern. At least two of the three related courses, one of which will be a Winter Study Project (Religion 30) must be taken in addition to the number normally required for the major.

b) If the program of study is an interdisciplinary one involving work outside the major, two courses offered by other departments or programs will be included in the three-course honors requirement. The third course will be an independent study or a Winter Study Project (Religion 30) or a course specifically designed to explore the interdisciplinary topic. All such courses must be taken in addition to the number normally required for the major.

Students who wish to be candidates for the Degree with Honors in Religion will submit proposals for a program of studies which is consistent with these guidelines to the department in the Fall of their junior year. When a student has completed two-thirds of his or her honors project, the department will examine the student’s achievement and determine whether the student is admitted to honors candidacy.

REL 101(F,S) Introduction to Religion
An examination of the structure and dynamics of certain aspects of religious thought, action and sensibility—employing psychological, sociological, anthropological and philosophical modes of inquiry. The course offers a general exposure to basic methodological issues in the study of religion, and includes consideration of several cross-cultural types of religious expression in non-literate and literate societies.
Requirements, midterm paper and a final examination.

Members of the Department

REL 201 The Jewish Bible/Old Testament
An introduction to major literary and religious texts in the Jewish Bible. Legal, narrative, prophetic, revelatory and wisdom literature will be examined in the context of the history of the people of Israel from the formation of the Israelite Nation to the Maccabean revolt (2 c., C.E.). The historical character of Israelite thought will also constantly be at issue in connection with the opposing forms of the royal (Davidic) and Mosaic ideologies, each of which arises out of Israelite history and serves both to shape and to interpret it.
Requirements, midterm paper and a final scheduled examination.
Open to all classes without prerequisite.

Petersen

REL 202 Christian Tradition (Not offered 1985-86.)
An exploration of the development of the Christian tradition from the second century A.D. to the Reformation. The inquiry will focus on pivotal theological-philosophical controversies and social-cultural crises that have shaped Christian history. Consideration will be given to such issues as the relation between early Christianity and the Roman Empire, Christianity’s encounter with Gnosticism, early Christological and Trinitarian debates, the medieval synthesis and the rise of the Reformation. The course will examine the relation between theological problems and the historical-cultural conditions from which they emerge.
Requirements, midterm paper and a final examination.
Open to all classes without prerequisite.

Taylor

REL 203(S) Moses, Jesus, Muhammad
An examination of the religious significance of Moses, Jesus and Muhammad as represented in selected scriptural, legendary and mystical texts from the religions associated with them. Because the legendary and mystical interpretations blur the differences between these three persons, we will be concerned with two issues. One issue is the development of the images of Moses, Jesus and Muhammad within their respective religions. The other is the ways in which, and the reasons why, legendary and mystical interpretation have each produced such similar images of historically and scripturally
Religion

different characters. Accordingly, we will attempt to assess both the religious motives of these three central figures and those of their later followers.

Requirements, three four page papers and a final examination consisting of a question announced in advance.

Open to all classes without prerequisite.

Hour


An introduction to Jesus and early Christianity as represented in narrative, epistolary and apocalyptic writings in the New Testament: the four gospels, selected Pauline and post-Pauline letters, and the Revelation to John. Problems and options of interpretation will be entertained throughout the course.

Requirements, two eight page papers and a final examination.

Open to all classes without prerequisite.

Hour

[REL 205] Religion and Modern Secularism (Not offered 1985-86.)

An inquiry into the religious background of and response to various trends in modern and post-modern consciousness. Attention will be given to the thought of Eric Auerbach, Ricoeur, Freud, Marx, Peter Berger, Mary Daly, Ernst Becker, N. O. Brown, Jacques Derrida and others. The course will focus on themes such as relativism, homelessness, brokenness, pluralism and survival in an effort to explore some of the ways in which the varieties of contemporary religious and secular experience have been identified by theologians, artists, feminists, Holocaust survivors, critical theorists, sociologists and psychoanalysts.

Open to all classes without prerequisite.

Requirements, a journal, a midterm paper and a final paper.

Hour

REL 207 Hinduism: Pathways to Salvation

An examination of the fundamental texts, doctrines and practices of Hinduism. The course will follow the historical development of the Hindu tradition, paying special attention to the religious options and strategies involved in the three paths (mārgas) of Hinduism: the path of knowledge (jñāna), the path of ritual action (karma) including yoga, and the path of devotion (bhakti). Particular consideration will be given to the various attitudes towards the world, the self and the Ultimate. Textual readings will include the Vedas, the Upanishads, the Yoga-sūtra, the Bhagavad-gītā, Shankara’s Crest Jewel of Discrimination and selections from the medieval bhakti poets.

Requirements, two short essays and a longer term paper.

Open to all classes without prerequisite.

Hour

REL 208 Buddhism: Ideals of Perfections

An examination of the fundamental texts, doctrines and practices of South Asian Buddhism. This course explores the historical development of Buddhism in South Asia from the formative period on, but will focus specifically on an investigation of the differing concepts of the Buddha and concomitant notions of human perfection. Attention will be given to such issues as suffering and freedom, human effort and divine grace, concepts of the self, and types of religiosity. The course will concentrate primarily on the three traditions: Theravāda, Mahāyāna and Vajrayāna, and their three respective ideals: The arhat, bodhisattva and mahasiddha. Textual readings will include selections from the Pali Canon, the Lotus, Heart and Diamond Sūtras, the Bodhicharyāvatāra of Shantideva and the biography of Milarepa.

Requirements, two short essays and a longer term paper.

Open to all classes without prerequisite.

Hour
REL 209  The Sage, the Way and Zen
An examination of the central Chinese and Japanese traditions of Confucianism, Taoism and Zen. Consideration will be given to conceptual, structural and historical aspects, as well as to the art, practice and discipline of these religious perspectives. The majority of readings will be in primary sources.
No prerequisite.
Requirements, midterm paper, journal and a final examination.

REL 210  Fairy Tale, Legend, Myth (Not offered 1985-86.)
An introduction to some basic forms of folk narrative and their interpretation. The course will be equally divided between consideration of folk texts and interpretative approaches to them (e.g., folkloristic, history of religions, literary, psychological). The investigation of fairy tales, legends and myths will focus respectively on some of the classic tales of the western world, on local legends and on creation stories from around the world. Three short papers will concentrate on: the world of the tale and the real world; psychoanalytic interpretation of fairy tales; sexuality as a metaphor for creation.
Requirements, three five-seven page papers.
Open to all classes without prerequisite.

REL 213  Judaism and Islam (Not offered 1985-86.)
An introduction to the fundamentals of post-Biblical Judaism and Islam, two faiths of Abraham, to be followed by a comparative study of themes and issues that arise in both traditions: the nature of God and His attributes, causality and free will, the interpretation of scripture, reason and revelation, religious law and community and mysticism and messianism. Attention will be given to the common encounter with the classical philosophical tradition, with readings drawn from Saadya Gaon, Judah Halevi, Maimonides, Ashari and Ghazali. Two case studies of the encounter with modernity will be made, namely, the status of women and the religious dimensions of the Arab-Israeli impasse.
Requirements, three five-seven page papers.
Open to all classes without prerequisite.

REL 215  Paul and Early Christian Theology
This course is concerned with the forms and contents of thoughts that are foundational to Christianity. It might have been called "biblical theology," except that "theology" is but one form of Christian thought and expression. Letter, narrative and sermon are earlier and more fundamental forms, so much so as to suggest that "theology" is not biblical. What, then, are the distinctive features of Christian thought and expression? The focus of the course will be on Paul's letters, because he is the pivotal figure in the emergence of Christian thought, but it will also entertain early orthodox and recently discovered heretical transformations of his thought—into theologies. New insights from literary criticism and the sociology of knowledge will be considered, as well as developments in "narrative theology."
Requirements, one ten page paper and a self-scheduled final examination.
Open to all classes without prerequisite.

REL 217(S)  Introduction to Islamic Civilization (Same as History 217) (Not offered 1985-86.)
The rise of Islamic civilization at once continues and transforms the heritage of the ancient world, serving as both stimulus and threat in the history of Western Europe. This course will survey the expansion, articulation, cultural consolidation and political fragmentation of the Islamic empire from Spain to India during the first seven centuries of Islam. Topics covered include the career of the prophet Muhammad, the...
Religion

rise of the Islamic state, the Abbasid revolution, the flowering of Helleno-Islamic culture and the disintegration of the empire. Special emphasis will be given to the emergence of Islamic institutions, the conversion process, connections with European developments and the bases for political and social cohesion in Islamic society.
Requirements, two five-seven page papers and a final examination.
Open to all classes without prerequisite.
Hour

[REL 222 Problems in Religious Ethics (Not offered 1985-86.)]
A study of ethical perspectives and reasoning as found in the Western religious tradition and in certain Eastern religions. Particular attention will be paid to selected issues in contemporary American culture, e.g., the conception and use of energy, nuclear armament, religion and the Constitution, human sexuality, aging and dying.
Requirements, midterm paper and a final examination.
No prerequisite.
Hour

REL 223 Pilgrimage: The Center Out There
An inquiry into the religious phenomenon of pilgrimage. Effort will be made to generate and critically to use a comparative model while examining pilgrimage in Hinduism, Islam, Christianity and Japanese religions. The course will also include an examination of the aspects of pilgrimage in Jack Kerouac's *On the Road* and *The Dharma Bums*. Special attention will be given to the theories of Victor Turner who has suggested that pilgrimage is an initiatory journey on which one discovers who he or she really is outside of any "structure." A number of films will be viewed in the course.
Requirements, a class presentation and a fifteen page term paper.
Open to all classes without prerequisite.
Hour

REL 224(F) Nuclear War: History, Ethics and the Environment (Same as Environmental Studies 224)
A study of the implications of nuclear war in its environmental, ethical and historical settings. Attention will be paid to the effects of nuclear war on the social and physical environment, to the problem of weapon inventory, development, proliferation and control, to the history of American involvement in nuclear technology and weapon development. The course will deal with Judeo-Christian concepts of war, perspectives from other religious traditions, the ethics of coercion and control, and the problem of despair in the nuclear age. Visiting lecturers will include Michael Smith of the History Department and MacAlister Brown of the Political Science Department.
Hour

REL 225 Resurgent Islam (Same as African and Middle Eastern Studies 401 and History 363)
The resurgence of Islam can be viewed as a response to the dilemmas of modernity in the Islamic world. This course will explore the historical background and articulation of Islamic parties and movements in selected countries including Nigeria, Senegal, Sudan, Egypt, Libya, Saudi Arabia, Iran and Pakistan. Students working in teams will specialize in one country and will relate their research to the resurgence of Islam as a multifaceted modernizing ideology that supersedes nationalism as a means to secure social and individual identity. Three specific methodological issues will be addressed. First, how do Marxist, Neo-Marxist, structuralist and post-structuralist modes of reading aid in reading the discourse of Islamic resurgence? Second, in terms of comparative politics, how might we compare the organizational forms these parties and movements take? Finally, what are the implications of these phenomena for a critique of Western theories of development and Western orientalism?
Requirements, one 20-25 page research paper.
Enrollment limited.
Hour

DARROW

REL 222 Problems in Religious Ethics (Not offered 1985-86.)
A study of ethical perspectives and reasoning as found in the Western religious tradition and in certain Eastern religions. Particular attention will be paid to selected issues in contemporary American culture, e.g., the conception and use of energy, nuclear armament, religion and the Constitution, human sexuality, aging and dying.
Requirements, midterm paper and a final examination.
No prerequisite.
Hour

REL 223 Pilgrimage: The Center Out There
An inquiry into the religious phenomenon of pilgrimage. Effort will be made to generate and critically to use a comparative model while examining pilgrimage in Hinduism, Islam, Christianity and Japanese religions. The course will also include an examination of the aspects of pilgrimage in Jack Kerouac's *On the Road* and *The Dharma Bums*. Special attention will be given to the theories of Victor Turner who has suggested that pilgrimage is an initiatory journey on which one discovers who he or she really is outside of any "structure." A number of films will be viewed in the course.
Requirements, a class presentation and a fifteen page term paper.
Open to all classes without prerequisite.
Hour

REL 224(F) Nuclear War: History, Ethics and the Environment (Same as Environmental Studies 224)
A study of the implications of nuclear war in its environmental, ethical and historical settings. Attention will be paid to the effects of nuclear war on the social and physical environment, to the problem of weapon inventory, development, proliferation and control, to the history of American involvement in nuclear technology and weapon development. The course will deal with Judeo-Christian concepts of war, perspectives from other religious traditions, the ethics of coercion and control, and the problem of despair in the nuclear age. Visiting lecturers will include Michael Smith of the History Department and MacAlister Brown of the Political Science Department.
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Requirements, one 20-25 page research paper.
Enrollment limited.
Hour

DARROW
REL 227  Religion and Revolution in Iran (Same as History 339) (Not offered 1985-86.)

This course explores the Iranian revolution as a case study in revolutionary change in the third world. The economic and social history of Iran in the twentieth century will be surveyed, but the religious and cultural elements that are so crucial for understanding the revolution will also be explored through literature. The immediate revolutionary period, 1978 until the present, will be examined in depth. Special attention will be focused on the articulation of a radical religious ideology, including its stance toward Marxism and imperialism and its vision of the place of woman. Since the Iranian revolution is one that confounds revolution theory, some attention will be directed to the implications of the Iranian case for theories of revolution.

Requirements, two five-seven page papers and a final examination.
Open to all classes without prerequisite.

REL 228  Women Saints

An examination of the lives and experiences of famous women saints from India and the West, including Akka Mahadevi, Mirabai, Anandamayi Ma, Rabia of Basra, Teresa of Avila and Julian of Norwich. This course will investigate the socio-religious context (e.g., mythological images, social status, developmental patterns, etc.) of the representative women saints, examine their life experiences and then proceed to compare these experiences to see what generalizations can be drawn.

Requirements, a class presentation and a fifteen page term paper.
Open to all classes without prerequisite.

REL 230  The Many Forms of Jesus

The Gospels of Matthew, Mark, Luke and John, together with Gospels that did not get into the Bible, present different pictures of Jesus, perhaps different Jesuses. We see him as a fabulator in the parables, as a "magician" in miracle stories and as a teacher or revealer, sometimes human, sometimes divine. We also see him as a revolutionary executed by the establishment and as one whose death was the paradoxical means of his enthronement as a heavenly king. Focusing on Gospels, both within and outside of the New Testament, we will explore the many forms in which Jesus is represented, the kinds of Christianity they express and the question of who he really was.

Requirements, one ten page paper and a self-scheduled final examination.
Open to all classes without prerequisite.

REL 231  Introduction to Judaism

Jewish religious thought and practice from Old Testament origins to the present. Primary selections from Scripture and Mishnah illustrate aspects of Israelite religion and pre-rabbinic Judaism that were later incorporated into "normative" rabbinic Judaism, while readings from the Dead Sea scrolls and Philo of Alexandria recall forms of early Judaism that did not survive. Rabbinic theology of creation, revelation and redemption, and of Israel's relationship with the God of history and with the world, is illustrated by selections from traditional synagogue liturgy, while readings from Maimonides and Judah Halevi demonstrate the influence of Islamic culture on mediaeval Jewish thought. Finally, the course explores the effect of the Enlightenment on Jewish thought and surveys the major trends that Emancipation generated in nineteenth and twentieth century European and American Judaism. Secondary readings include works of Jacob Neusner and other scholars of Judaism.

Requirements, a midterm paper (five-seven pages) and a take-home final examination.
Open to all classes without prerequisite.

243
REL 232  Modern Jewish Thought
A study of representative works by major Jewish thinkers from Moses Mendelssohn to
Abraham Joshua Heschel. Selections from Mendelssohn, Abraham Geiger, Samson Raphael
Hirsch, Asher Ginzberg (Ahad Ha-Am), Hermann Cohen, Franz Rosenzweig, Martin
Buber, and A.J. Heschel illustrate modern reformulations of classic themes of Jewish
religious tradition (God, Torah, the election of Israel, exile and redemption). Interpretation
shows how these works reflect Jewish appropriation of post-Enlightenment pat-
terns of thought. The course focuses on the need of Judaic scholarship, following
Emancipation, to reconcile traditional Jewish ethnocentrism, and its stress on ethnic
obligation, with modern insistence on individual moral autonomy and a universal
religious ethic. Requirements, a short paper (four-five pages) and a final paper (ten-
twelve pages).
Open to all classes without prerequisite.

REL 233  The Sufi Way (Not offered 1985-86.)
Sufism, the mystical tradition of Islam, is a rich and many faceted spiritual tradition
that both enriches and criticizes orthodox Islam. This course will explore the origins of
Sufism in Islamic piety; the development of the tradition; its manifestation in art,
poetry and folklore; and the development of Sufi orders and meditation practices. In
addition to readings in the Persian and Arabic Sufi poets and philosophers such as
Rumi, Attar and Ghazali, the course will explore the articulation of the mystic theoso-
phy of later Sufism in Ibn Arabi. Special attention will be devoted to Henri Corbin's
and Toshihiku Izutsu's interpretations of the nature of human transformation in this
tradition.
Requirements, two five-seven page papers and a final examination.
Open to all classes without prerequisite.

REL 234  Religion and Law (Same as Political Science 240)
A cross-cultural inquiry into the relationship between religion and law. Topics in-
clude (among others): lawmaking authority in the ancient Near East; law and social
change in Judaism and Islam; revelation and reason in theocracy, precedent and equity
in English law, positivism and realism in American jurisprudence; the conflict between
individual rights and societal needs expressed in American constitutional cases involving
the first-amendment guarantee of freedom of religion. Primary readings range from
selections from ancient law codes to contemporary Supreme Court decisions. Secondary
readings are drawn from the work of historians of religion and law and prominent
British and American jurists.
Requirements, a short paper (four-five pages) and a final paper (ten-twelve pages.)
Open to all classes without prerequisite.

REL 235  Women in Patriarchy: The Jewish Experience
This inquiry into the image and status of women in Jewish culture illustrates the
position of women in patriarchal societies. Analysis of biblical and mishnaic rules that
still govern women's status in Jewish law highlights the impact of the past on the
contemporary quest for equality of the sexes in Jewish life. The status of Jewish women
in various historical settings is placed in perspective by comparison with the position of
women in the dominant cultures of Greece and Rome, Christendom and Islam. Primary
texts include selections from Jewish Scripture and oral tradition, New Testament and
Qu'ran. Secondary readings in history, anthropology, feminist studies, and Jewish and
Christian feminist theology include Simone de Beauvoir, E.E. Evans-Pritchard, Mary
Douglas, Sarah Pomeroy, Rosemary Reuther, Cynthia Ozick and Blu Greenberg.
Requirements, a short paper (four-five pages) and a final paper (ten-twelve pages).
Open to all classes without prerequisite.
[REL 236  The Japanese Religious Aesthetic (Not offered 1985-86.)
An inquiry into the nature of the beautiful as manifested in Japanese Shinto and Buddhist art and literary form. Aesthetic theories of contemporary Japanese thinkers, artists and crafts people will be discussed. Specific attention will be paid to certain shrines and temples, painting and sculpture, tea ceremony, selected novels, gardens, poetry forms.
Requirements, a midterm paper and a final examination.
Open to all classes without prerequisite.
Hour  
EUSDEN]

[REL 237  The American Puritan Tradition (Not offered 1985-86.)
Beginning with the Reformed tradition on the Continent and in England, the course will focus on the characteristics of American Puritanism in its surrounding culture, and on its contributions to that culture, from the 1630's through the time of Jonathan Edwards, Puritan concepts of religious "affection," covenant, the nature of man and society, literary style, the "good life," and the Bible will be considered.
Requirements, a midterm paper and a final examination.
Open to all classes without prerequisite.
Hour  
EUSDEN]

[REL 301  Psychology of Religion (Not offered 1985-86.)
An exploration of the psychological dimensions of religious awareness and practice. An effort will be made to establish the relationship between psychological issues such as dream analysis, textual interpretation, personality structure and development and religious belief and conduct. Special attention will be given to the interplay of death, violence and sexuality in myth and ritual. Authors to be considered include: Freud (Interpretation of Dreams, Beyond the Pleasure Principle), Bataille (Death and Sensuality), Girard (Violence and the Sacred), Kristeva (Powers of Horror), Nietzsche (Will to Power) and Derrida (Spurs).
Prerequisite, Religion 101 or 205 or Psychology 101 or 241 or 242 or permission of the instructor.
Requirements, midterm examination and final paper.
Hour  
TAYLOR]

[REL 302  Religion and Society (Not offered 1985-86.)
An inquiry into the theoretical foundations of certain classical perspectives on religion. Various ways in which religious orientations intersect with other aspects of social existence in creating, legitimating, criticizing and transforming human relations will be inspected. Attention to be given to current semiotic discussions of language, myth and ritual. The course will be organized around some of the major ideas of Freud, Durkheim, Ferdinand de Saussure, Lévi-Strauss and Max Weber.
Prerequisite, Religion 101 or Anthropology 101 or permission of instructor.
Requirements, two short papers and a final paper.
Hour  
LITTLE]

[REL 303  Kierkegaard and Hegel (Not offered 1985-86.)
A detailed investigation of two pivotal nineteenth century philosophers/theologians. An effort will be made to establish a dialogue between Kierkegaard and Hegel in which their similarities and differences emerge. Special attention will be given to the interpretation of religion in the work of each author. In addition to acquiring familiarity with these formative thinkers, the course is intended to help students begin to develop the background necessary for substantial work in current religious, philosophical and social scientific inquiry.
Requirements, midterm examination and a final paper.
Prerequisite, Religion 101 or 202 or History of Ideas 102 or Philosophy 101.
Hour  
TAYLOR]
Religion, Research Seminars, Romance Languages

REL 401-402 Issues in the Study of Religion
To be conducted as a working seminar or colloquium. Major issues in the study of religious thought and behavior will be taken up in a cross cultural context enabling the student to consolidate and expand perspectives gained in the course of the major sequence. Topics will vary from year to year. In keeping with the seminar framework, opportunity will be afforded the student to pursue independent reading and research. Requirements, class reports, papers and substantial research projects. Prerequisite, senior major status or permission of instructor. Hour

REL 444 A French Hegel (taken by Senior Religion majors as Religion 402 1985-86 only)
A reexamination of Hegel’s System in light of critiques of Hegelian philosophy developed by major French thinkers during the past 25 years. The course will concentrate on a series of seminal works by leading French philosopher-critics: Kojève, Introduction to the Reading of Hegel; Merleau-Ponty, The Visible and the Invisible; Levinas, Totality and Infinity; Blanchot, The Space of Literature; and Derrida, Glas. A special effort will be made to explore the implications of these criticisms of Hegel for contemporary literary criticism. Prerequisite, Religion 205 or 301 or 302 or 303 or Philosophy 204 or English 373. Hour

REL W30 Senior Project
To be taken by honors candidates.

REL 493-494 Senior Thesis
REL 497, 498 Independent Study

RESEARCH SEMINARS
Each year a few faculty members are selected to offer special research seminars. These seminars, which are open to other members of the faculty as well as to students, are focused on the area of the instructor’s current research. The seminars for 1985-86 are:

Biology 451 The Neurosciences: Regeneration Within the Central Nervous System
(See under Biology for full description.)

Religion 444 A French Hegel
(See under Religion for full description.)

ROMANCE LANGUAGES (Div. I)
Departmental Staff for 1985-86

Acting Chair, Associate Professor ANTONIO GIMÉNEZ

Professors: PIPER, PISTORIUS, SAVACOOL. Associate Professors: BELL-VILLADA, DUNN, GIMÉNEZ. Assistant Professor: APTER*. Visiting Assistant Professor: COOPER. Part-time Visiting Lecturers: DESROSIERS, NICASTRO. Teaching Assistants: JULIEN, VERDEJO.
MAJOR PROGRAM
The French major consists of nine courses above the 103-104 level. These nine courses must include French 202, 301, 303 and 402, 404, or 406 (formerly 304). Students entering the major program at the 109 level may, with the permission of the Department, choose as part of their major program, one course in Art, History, History of Ideas, Philosophy, Comparative Literature or other subjects that relate to and broaden their study of French. Students entering the major program at the 200 level may, in some cases and with the permission of the Department, include two such courses in their major program.

The major seeks to provide training in literary analysis and linguistic expression through the study of selected texts. Emphasis is placed on the changes in form and subject matter from the seventeenth century to the modern era.

Students intending to major in French, and who are considering spending their junior year in France, should discuss their program with a member of the department during the sophomore year.

Inasmuch as all courses in French assume the active participation of each student in discussions conducted in the foreign language, regular attendance at class meetings is expected.

THE DEGREE WITH HONORS IN FRENCH
Two alternative routes are available to those who wish to apply for the degree with honors.

The first of these involves the writing of a senior thesis; honors candidates are required to devote to their theses two semesters of independent study (beyond the nine courses required for the major) and the Winter Study Period of their senior year (493-W31-494). The thesis will be written in French and will usually be in the range of from forty to sixty pages. Candidates are encouraged to submit thesis proposals in May of their junior year. By the end of the first semester of the senior year, students will normally have finished the research for the thesis. By the end of the Winter Study Period, candidates will submit to the Department a completed first draft of their work. At this time, the student will make a presentation of his project at a departmental colloquium. The thesis will be discussed and evaluated to determine whether or not the student should continue in the honors program. The second semester of independent thesis work will be spent revising and rewriting the thesis. The completed dissertation in its final form will be due at the end of April.

The second route is a group of three clearly related courses (offered by the Department of Romance Languages or by other Departments, such as History, Art, Philosophy, English, etc.), only one of which may be counted in the nine courses comprising the major. One of the courses will be an Independent Study (plus senior year WSP) in the spring of the senior year, at the end of which the student will write an essay that synthesizes the content of the three related courses. Students may apply for this route by November 1 of the senior year.

In the case of both routes to the degree with honors, the Department's recommendation for graduation with honors will be based on the originality and thoroughness of the finished project.

PLACEMENT
The CEEB French Test is administered at Williams at the opening of the fall semester. Incoming freshmen who register for any French course above the 101-102 level must take this test, regardless of their previous preparation, unless they have taken the CEEB Achievement Test during the preceding academic year.

(Division I distribution credit is granted for all French courses above the elementary level.)
Romance Languages

LANGUAGE AND CIVILIZATION COURSES

RLFR 101-W-102  Elementary French
A year long course which offers a thorough introduction to basic French language skills: understanding, speaking, reading and writing. The class meets five hours a week.

Students are required to register for a sustaining course meeting three hours a week during Winter Study. **Credit granted only if both semesters are taken.**

For students who have taken less than two years of French in high school.

*Hour*  

COOPER

RLFR 103  Intermediate French I
Continuation of French 101-102.

Intensive review of French grammar with some practice in speaking, writing and building vocabulary. The class meets four hours a week. In addition, students spend two half-hour periods every week in the Language Laboratory.

Students may take French 103 without taking 104, although the two courses constitute a year's program at the end of which the student may enter 105 (Third Year French) or 109 (Introduction to French Literature).

Prerequisite, French 101-W-102 or two years of French in secondary school.

*Hours*  

SAVACOOL

RLFR 104  French Conversation (Intermediate French II)
This course is designed to improve speaking and listening skills. Course work includes discussions of weekly films, reading selections from modern French literature and from the contemporary French press, listening assignments in the language laboratory and weekly compositions. Grammar review, having taken place in French 103, will not be stressed.

Prerequisite, French 103 or permission of the instructor.

*Hours*  

SAVACOOL

RLFR 105  Third Year French
For students who have had two years of college French (or their equivalent) this course offers further development of language skills with emphasis on grammar, translation, stylistics, composition and conversation. **Conducted in French.**

Prerequisite, French 104 or a score of 550 on the placement test.

*Hour*  

COOPER

RLFR 208  Advanced French: Composition and Translation
This course is conducted as a workshop in composition and translation. Each student will receive individual attention so that students with varying degrees of proficiency may be accommodated. We will concentrate on the translation of literary texts from English into French with emphasis on style, vocabulary and grammar. There will also be short assignments in creative and expository writing. Class time will be devoted to discussion and correction of assignments. **Conducted in French.**

Prerequisite, French 105 or any French course above 105 or permission of the instructor.

*Hour*  

COOPER

LITERATURE COURSES

RLFR 109  Introduction to French Literature, Part I: The French Tradition
An introduction to the masterpieces of French literature through close reading and analysis of French theatre and prose. The course examines French Classicism, Romanticism and Realism. There is emphasis on the continuity of the French intellectual and literary tradition. Authors represented include Corneille, Racine, Chateaubriand, Nerval, Balzac and Flaubert. **Conducted in French.**
Romance Languages

Prerequisite, an honors grade in French 104 or 105 or a score of 580 or higher on the CEEB placement test or permission of the instructor.

Dunn, Savacool

RLFR 110 Introduction to French Literature, Part II: The Quest for the Authentic Self

A study of the central problem posed in the French récit (short novel) from the seventeenth century to the present: a character’s search for identity and authenticity. How does he reach self-awareness and self-understanding? What are the obstacles in his path? Questions of genre (the nature of récit: style, form and point of view) will also be explored. Authors represented include Mme de Lafayette, Voltaire, Constant, Maupassant, Gide, Saint-Exupéry, Proust and Camus. Conducted in French.

Prerequisite, French 109 or permission of the instructor.

Dunn, Savacool

RLFR 201 Romanticism

A study of the poetry and theatre of the literary movement which dominated the first half of the nineteenth century in France. Authors studied include Lamartine, Vigny, Musset, Hugo and Baudelaire. Conducted in French.

Prerequisite, French 109 or 110 or permission of the instructor.

Pistorius, Savacool

RLFR 202 Nineteenth Century Novel

A study of romantic themes and the realistic tradition in nineteenth century fiction. Texts include Balzac’s Le Père Goriot, Stendhal’s Le Rouge et le Noir, Flaubert’s Madame Bovary and Zola’s Germinal. The course examines these four major novels with attention to the historical and intellectual context of the period, but the primary concern is the novel as a literary form. Conducted in French.

Prerequisite, French 201 or 203 or permission of the instructor.

Cooper

RLFR 203 Eighteenth Century Novel

The eighteenth century French novel was a new and experimental literary form. Writers composed fictional memoirs, epistolary novels, anti-novels, realistic novels, as well as erotic literature and philosophical tales. This course is a study of the nature of the novel in prerevolutionary France and of the revolutionary themes of happiness, freedom and equality. Authors included are: Marivaux, Montesquieu, Diderot, Rousseau, Prévost and Laclos. Conducted in French.

Prerequisite, French 109 or 110 or permission of the instructor.

Pistorius

RLFR 205 History and the Novel

Many modern novelists depict modern man in a solitary social state; the hero is an ahistorical being, confined within the limits of his own experience and consciousness. In this course, we will concentrate on another kind of novel in which social and historical problems are in the forefront. In these novels, concerned for the most part with questions of revolution and war, we will study attitudes towards history, politics, time, change, repetition and eternity and the relation between history and fiction. Works studied include Hugo’s Ninety-three, Malraux’s Man’s Fate, Faulkner’s Absalom, Absalom!, Koestler’s Darkness at Noon, Sartre’s Nausea, Silone’s Bread and Wine, and Doctorow’s Ragtime. Conducted in English.

Prerequisite, permission of the instructor.

Dunn
RLFR 301  Classical Theatre
A detailed study of plays by Corneille, Racine and Molière. Lectures, readings and written reports. Conducted in French. Prerequisites, French 201, 202 or 203 or permission of the instructor. *PISTORIUS*

RLFR 303  The Novel, From Gide to Camus
A study of the existentialist theme as reflected in twentieth century French fiction. Novels by Gide, Mauriac, Saint-Exupéry, Malraux, Sartre, Camus. Conducted in French. Prerequisite, French 201, 202 or 203 or permission of the instructor. *PISTORIUS*

RLFR 306  The Idea of Theatre in Twentieth Century France (Not offered 1985-86.)
Readings, analyses and discussions of plays which have made the twentieth century a golden age for French theatre. Texts by Jarry, Apollinaire, Claudel, Cocteau, Giraudoux, Anouilh, Sartre, Camus, Beckett, Ionesco and Genet. Conducted in French. Prerequisite, French 201, 202 or 203 or permission of the instructor. *SAVACOOL*

RLFR 307  Twentieth Century Poetry
The aim of this course is to characterize the French Poetry of the twentieth century through its relation to the Arts. This relationship reveals some aspects of the sensibility of the poet as well as the technical aspects of his writing. The course will focus on Apollinaire and Reverdy and their strong response toward the Cubist experience. The work Equation de l’Objet trouvé by André Breton, founder and theorist of the surrealist movement, will be studied in relationship with the work of Alberto Giacometti (1901-1966), who, after passing through a cubist period, attracted attention as an avant-garde sculptor. Finally, in its third part, the course will study in greater depth the work of Pierre Jean Jouve, an important poet known also for his commentaries on the painters Delacroix, Courbet and Balthus. These great moments of the French poetry since 1910 will be studied in the perspective of Baudelaire’s heritage whose influence is also essential in the quest of the poetry of our time. Conducted in French. *BONNEFOY*

RLFR 402  The Symbolist Movement (Not offered 1985-86.)
This seminar will involve close readings of seminal works in poetry and prose by Baudelaire, Rimbaud, Verlaine and Mallarmé. An attempt will be made to define Symbolism as a movement—its situation within an historical context, its role in the evolution of modernist aesthetics, its formal innovations in theory and practice, and its aesthetic corollaries in the other arts. The course will focus thematically on the problem of the symbolic representation of the self, the poet and the symbol itself. Conducted in French. Open to non-majors by permission of the instructor. *BONNEFOY*

RLFR 404  Albert Camus (Not offered 1985-86.)
A detailed study of Camus: his works, his milieu, his era and his place in French literary history. Conducted in French. Open to non-majors by permission of the instructor. *BONNEFOY*

RLFR 406 (formerly 304)  Marcel Proust and his Precursors
A study of Nerval, Alain-Fournier and Proust, three authors in search of lost time. Nerval’s Sylvie (1853) and Alain-Fournier’s Le Grand Meaulnes (1913) constitute a brief introduction to a study of Proust’s A La Recherche du temps perdu, one of the major...
works of twentieth century fiction. Combray and Un Amour de Swann will be read in
their entirety, A l’ombre des jeunes filles en fleurs, La Prisonnière and Le Temps retrouvé
in substantial extraits.
Prerequisite, French 201, 202 or 203 or permission of the instructor.

PISTORIUS

RLFR 493-W31-494   Senior Thesis

RLFR 497, 498   Independent Study

RLFR 501-502 (101-102)   Elementary French
This course consists of the regular undergraduate introductory course with the addi-
tion of specially selected readings for the graduate students of art history in the second
semester. Graduate students are not required to take the Sustaining course during the
Winter Study Period. The class will meet five hours a week.

COOPER

RLFR 509   Readings in Art History and Criticism
Texts will be selected from fundamental works of art history and criticism and from
the specialized literature required in concurrent art seminars of the Graduate Program
in Art History.
Prerequisite, French 501-502 or the equivalent.

DESROSIERS

ITALIAN (Div. I)

RLIT 101-W-102   Elementary Italian
A year long course which offers a thorough introduction to basic Italian language
skills: understanding, speaking, reading and writing. The class meets five hours a
week; in addition, as part of their preparation, students work with taped materials on a
regular basis. Students are required to register for a sustaining course meeting three
hours a week during Winter Study. Credit granted only if both semesters are taken.  En-
rollment limited to 25.

NICASTRO

ART 473   Giacometti: The Art and Poetics
(See under Art for full description.)

French 205   History and the Novel
(See under French for full description.)

[Spanish 205   The Latin American Novel in Translation (Not offered 1985-86.)]
(See under Spanish for full description.)

[World Literature in English 220   The Novel (Same as English 214) (Not
offered 1985-86.)]
(See under World Literature for full description.)

ROMANCE LANGUAGES (Div. I)

RLAN 302   Introduction to Romance Linguistics
A consideration of the various political, social and intellectual forces which brought
about the regionalization of Vulgar Latin and its eventual transformation into the
modern vernaculars of Italy, France, Spain and Portugal. Emphasis will be given to such
Romance Languages

linguistic problems as phonetic change, loan-words, semantics and the dominance of speech over the written word.
Prerequisite, reading knowledge of Latin and/or a Romance Language.

Hour

SPANISH (Div. I)

The Spanish major consists of nine courses above the 103-104 level. These nine courses must include 301, 401, 402 and Romance Languages 302.

The major seeks to provide training in literary analysis and linguistic expression, as well as an appreciation of Hispanic civilization, through the study of the major writers of the Spanish-speaking world.

Students intending to major in Spanish, and who are considering the possibility of taking their junior year in Spain or Latin America, should discuss their program with a member of the department early in the sophomore year.

Students majoring in Spanish and who are also registered in Latin American Area Studies may replace one of their Spanish electives with an Area Studies course offered in another department.

Inasmuch as all courses in Spanish assume the active participation of each student in discussions conducted in the foreign language, regular attendance at class meetings is expected.

THE DEGREE WITH HONORS IN SPANISH

Two alternative routes are available to those who wish to apply for the degree with honors.

The first of these involves the writing of a senior thesis; honors candidates are required to devote to their theses two semesters of independent study (beyond the nine courses required for the major—and the Winter Study Period of their senior year (493-W31-494). The thesis will be written in Spanish and will usually be in the range of from forty to sixty pages. Candidates are encouraged to submit thesis proposals in May of their junior year. By the end of the first semester of the senior year, students will normally have finished the research for the thesis. By the end of the Winter Study Period, candidates will submit to the Department a completed first draft of their work. At this time, the student will make a presentation of his project at a departmental colloquium. The thesis will be discussed and evaluated to determine whether or not the student should continue in the honors program. The second semester of independent thesis work will be spent revising and rewriting the thesis. The completed dissertation in its final form will be due at the end of April.

The second route is a group of three clearly related courses (offered by the Department of Romance Languages or by other Departments, such as History, Art, Philosophy, English, etc.), only one of which may be counted in the nine courses comprising the major. One of the courses will be an Independent Study (plus senior year WSP) in the spring of the senior year, at the end of which the student will write an essay that synthesizes the content of the three related courses. Students may apply for this route by November 1 of the senior year.

In the case of both routes to the degree with honors, the Department’s recommendation for graduation with honors will be based on the originality and thoroughness of the finished project.

(Division I distribution credit is granted for all Spanish courses above the elementary level.)

RLSP 101-W-102 Elementary Spanish

Grammar, elementary composition, practice in conversation and reading of easy modern prose.

This course is conducted by the intensive oral method. The class meets five hours a week. In addition, as part of their preparation, students are required to spend two
half-hour periods every week in the Language Laboratory. Credit granted only if both semesters are taken. Students electing Elementary Spanish are also required to register for a sustaining Spanish course, meeting three hours a week, during the Winter Study period.

For students who have studied less than two years of Spanish in secondary school.

**Hour**

**RLSP 103-104 Intermediate Spanish**

Continuation of Spanish 101-102. Review of grammar. Stress on the spoken as well as the written tongue. Reading of literary selections of the modern period.

The class meets four hours a week. In addition, students are required to spend two half-hour periods every week in the Language Laboratory. The two courses in this sequence normally constitute a year’s program. A student may elect 104, only by special permission of the department.

Prerequisite, Spanish 101-W-102 or two years of Spanish in secondary school.

**Hour**

**Conferences:**

First semester: BELL-VILLADA

Second semester: PIPER

**Hour**

**RLSP 105 Advanced Composition and Conversation**

Intensive practice in speaking and writing. Students are expected to participate actively in daily conversations based on selected short stories by Peninsular writers. Weekly compositions, plus regular exercises in the language laboratory.

Prerequisite, Spanish 103-104 or three years of Spanish in secondary school.

**Hour**

**RLSP 106 Advanced Composition and Conversation**

This course may be taken separately or as a continuation of Spanish 105. Written and oral work will be based on selected short stories by Latin American writers. Weekly compositions, plus regular exercises in the language laboratory.

Prerequisite, Spanish 103-104 or three years of Spanish in secondary school.

**Hour**

**RLSP 111 Spanish Civilization**

An analysis of contemporary Spanish life, focusing on current political events, institutions, customs and myths as they have emerged from Spain’s cultural history. Class discussions, oral presentations and two short papers. Conducted in Spanish.

Prerequisite, Spanish 103-104 or three years of Spanish in secondary school.

**Hour**

**RLSP 112 Latin American Civilization**

An introduction to the multiple elements constituting Latin American culture. Class assignments include readings from selected Latin American essayists and screenings of classic films. Particular focus of the conflict between local and foreign cultural traditions.

Areas to be considered: Spanish Catholicism, the influence of European liberalism and U.S. expansion, the Indian and African contribution and the cultural impact of social revolution in Mexico and Cuba. Conducted in Spanish.

Prerequisite, Spanish 103-104 or equivalent or three years of Spanish in secondary school.

**Hour**

**[RLSP 201 Spanish Romanticism and Realism (Not offered 1985-86.)**

An examination of the two major literary movements in nineteenth century Spain. Readings in such representative writers as Larra, Espronceda, Zorrilla, Bécquer, Valera and Galdós. Class discussions and two short papers. Conducted in Spanish.

Prerequisite, Spanish 105 or higher.

**Hour**
Romance Languages

RLSP 202    The Generation of 1898
An exploration of the cultural and political forces which determined the course of Spanish letters between the disaster of 1898 and the founding of the Second Republic. Readings in Unamuno, Baroja, Azorín, Valle-Inclán, Ortega y Gasset and Machado. Class discussions and two short papers. Conducted in Spanish.
Prerequisite, Spanish 105 or higher.
Hour

RLSP 203    Major Latin American Authors; 1880 to the Present
A survey of some of the leading imaginative writers of Hispanic America. Readings will begin with the modernista poets and go on to include fiction of Mexico by Azuela and Rulfo, a wide sampling of verse by Pablo Neruda and narratives of the “Boom” period by authors such as Borges, Cortázar and García Márquez. Conducted in Spanish.
Prerequisite, Spanish 105 or higher.
Hour

[RLSP 204 Modern Hispanic Poetry (Not offered 1985-86.)]
A close study of some of the major poets active in Spain and Latin America since 1930. Emphasis will be given to the works of Lorca, Guillén, Aleixandre, Vallejo and Neruda, among others. Conducted in Spanish.
Prerequisite, Spanish 105 or higher.
Hour

[RLSP 205 The Latin American Novel in Translation (Not offered 1985-86.)]
A course specifically designed to enable students who have no knowledge of Spanish to read and discover those Latin American authors currently attracting world-wide attention. Among the texts to be discussed: Borges, Labyrinths; Cortázar, Blow-up and Hopscotch; lesser works by Fuentes and Puig; and by Nobel Prize-winner Gabriel García Márquez, One Hundred Years of Solitude.
Does not carry credit for the Spanish major.
Hour

[RLSP 301 Cervantes' “Don Quijote” (Not offered 1985-86.)]
A critical study of Europe's first “modern novel,” with special reference to the literary and philosophical currents which helped determine its form and content. Consideration will be given to such problems as the role of the “self-conscious author,” the emergence of the “autonomous character,” and the interplay of fiction and reality. Conducted in Spanish. Prerequisite, any 200 level course.

RLSP 302    Introduction to Romance Linguistics

RLSP 303    Spanish Theater of the Golden Age
A close study of La Celestina (1499) will be followed by readings from the four major playwrights of seventeenth century Spain: Lope de Vega, Tirso de Molina, Guillén de Castro and Calderón de la Barca. Conducted in Spanish.
Prerequisite, any 200 level course.

RLSP 304    Spanish Literature of the Middle Ages and Renaissance
Through readings of some of the major works of these two periods (Poema de Mío Cid, Libro de buen amor, the mystics and the picaresque novel) an attempt will be made to trace the gradual shift from a deeply religious view of the world to a more profane interpretation stemming from the influence of the Reformation and Humanism. Conducted in Spanish.
Prerequisite, any 200 level course.
RLSP 401  Studies in Modern Spanish Literature  
A senior seminar on a major twentieth century Spanish writer, theme or genre. The topic will vary from year to year. Conducted in Spanish. 
Prerequisite, any 300 level course. 
Hour  
Giménez

RLSP 402  Studies in Modern Latin American Literature  
A senior seminar on a major twentieth century Latin American writer, theme or genre. The topic will vary from year to year. For 1985-86 it will be: The Works of Gabriel Garcia Márquez. Conducted in Spanish. 
Prerequisite, any 300 level course. 
Hour  
Bell-Villada

RLSP 493-W31-494  Senior Thesis

RLSP 497, 498  Independent Study

RUSSIAN (Div. I)  
Departmental Staff for 1985-86

Chair, Professor Edson M. Chick§  
Acting Chair, Assistant Professor B. Kieffer §§

Professor: Fersen***. Assistant Professors: Goldstein, Prednewa. Visiting Assistant Professor: Singleton. Teaching Associate: Maly.

MAJOR PROGRAM in Russian (with Russian Area Studies)  
Sequence courses (Conducted in Russian)  
Russian 103  Intermediate Russian  
Russian 106  Introduction to Russian Literature  
Russian 201  Nineteenth Century Prose or  
Russian 202  Twentieth Century Prose  
Russian 205  Topics in Advanced Russian  
Russian 401(S)  Seminar in Russian Literature: Selected Genre (The Novel)  
Russian 402(F)  Seminar in Russian Literature: Special Authors (Russia’s Women Poets)

Parallel courses (Conducted in English)  
Any three semester courses from the following:  
Russian 203  The Russian Revolution in Literature  
Russian 208/Art 276  Art of the Russian Avant-Garde  
Russian 210  The Russian Literary Intellect  
Russian 301  Russian Classics in Translation  
Russian 302  Soviet Literature in Translation  
Russian 303  Tolstoy in Translation  
Russian 307  Dostoevsky in Translation  
Russian 308/Theatre 315  Russian Theatre  
Russian 310/Russian, Soviet and East European Studies 402  Literature of the Gulag  
Economics 222  Comparative Economic Systems  
History 337  Russian History to 1855  
History 338  Russian History, 1855 to the Present  
History 373  Society in Revolution: Russia 1917-1931  
History 375  Pathways to Utopia: Russian Radical Thought and Its Critics from Herzen to Lenin
THE DEGREE WITH HONORS IN RUSSIAN (with Area Studies)

At the beginning of the second semester of the senior year, students majoring in Russian (with enrollment in the Russian, Soviet and East European Studies Program) may nominate themselves to candidacy for the degree with honors. By the end of the junior year at the latest, however, they will have established in consultation with the Department, their qualifications for embarking on the project, the pattern of study to be followed and the standards of performance.

Students may earn a degree with honors (1) by submitting a senior thesis (493-W31-494) of honors quality; or (2) by satisfactory completion of three integrally related courses, one of which must be independent study and one of which may be a Winter Study Project; or (3) by completing a special project consisting of a program of study at a Soviet university. To qualify, a student must submit a plan listing a specific area of interest on which he/she will concentrate while in the USSR. Upon returning, the student will present to the Department a substantial written work dealing with the chosen subject.

Candidates for honors will normally be expected to complete a minimum of nine courses plus a Winter Study project or the equivalent in the field.

(Division I distribution credit is granted for all Russian courses above the elementary level.)

RUSS 101-W-102  Elementary Russian

A non-traditional approach to the fundamentals of Russian which aims to develop basic language skills: understanding, reading and speaking.

The class meets five hours a week; in addition, as part of their preparation, students are required to work with taped materials on a regular basis. Credit granted only if both semesters are taken.

Students electing this course are required to attend and pass the sustaining program in the Winter Study period.

For students who have studied less than two years of Russian in secondary school.

Hour

First semester: PERSEN
Second semester: SINGLETON

RUSS 103  Intermediate Russian

Continuation of grammar, composition and conversation. Selected readings from Russian and Soviet short stories.

The class meets four hours a week.

Prerequisite: Russian 101-102 or two years of Russian in secondary school.

Hour

RUSS 106  Introduction to Russian Literature

Readings selected from Russian and Soviet stories, poems and plays. Emphasis on literary analysis, composition and conversation. Conducted in Russian.

The class meets four hours a week.

Prerequisite, Russian 103.

Hour
RUSS 201(S) Nineteenth Century Prose
Prerequisite, Russian 106.

GOLDSTEIN

RUSS 202 Twentieth Century Prose (Not offered 1985-86.)
Russian twentieth century prose and its historical background. A study of works by Zoschchenko, Zamiatin, Olesha, Sholokhov, Solzhenitsyn, Kazakov, Shukshin and others. Special emphasis on the literary and ideological debates of the NEP period, the development of socialist realism, the post-Stalin thaw and recent “village prose.” Conducted in Russian.
Prerequisite, Russian 106.

GOLDSTEIN

RUSS 203(S) The Russian Revolution in Literature
This course will examine the Russian Revolution as a cultural phenomenon reflected in the literature of the period. Works of fiction, non-fiction and poetry will be examined to see how writers of different political and stylistic allegiances attempted to come to grips with the changing society. Both strident Bolsheviks and politically ambiguous figures will be read to place the Revolution in context and re-imagine it through their evocations. Readings from Mayakovsky, Blok, Trotsky, Sholokhov, Zamiatin, Bulgakov, et al. Conducted in English.
No prerequisite.

GOLDSTEIN

RUSS 205 Topics in Advanced Russian
This course aims to produce a significant leap in comprehension, conversation and reading skills. Vocabulary building, treatment of complex grammatical points, discussion of more difficult literary and non-literary texts including newspaper articles and historical documents. Students are advised to take this course before attending language programs in the USSR. Conducted in Russian.

GOLDSTEIN

RUSS 208 Art of the Russian Avant-Garde (Same as Art 276) (Not offered 1985-86.)
An introduction to the major Russian avant-garde artists, including Malevich, Lissitzky, Rodchenko, Popova and Tatlin. The course will consider the theories to such utilitarian arts as textile, poster, book and industrial design. The close collaboration between artists and writers will be traced. Another major point of investigation will be the relationship between social upheaval and the arts, from the flowering of Russian avant-garde culture in the teens to its demise under Socialist Realism in the early 1930’s.

GOLDSTEIN

RUSS 210 The Russian Literary Intellect
A study of the dominant themes in nineteenth century Russian literature and intellectual history, examined through the novels of Gogol, Turgenev and Dostoevsky and their contemporary critics. Themes include: the “accursed question,” serfdom as slavery, the superfluous man, the birth of the Russian “Intelligentsia,” nihilism and anti-nihilism, utilitarianism and the rebuttal, the “woman question,” Russian messianism. Readings include: Gogol’s Dead Souls; Turgenev’s Fathers and Children; Herzen’s Who is to Blame?; Dostoevsky’s Crime and Punishment; Chernyshevsky’s What is to be Done?
Conducted in English.

PREDNEVA
RUSS 301  Russian Classics in Translation
A study and interpretation of representative works from the great classic tradition in the nineteenth century. Readings include Pushkin, Gogol, Tolstoy, Dostoevsky, Turgenev, et al. A major task of the instructor will be to point out the intense involvement Russian authors showed in their fiction with the social, political and philosophic actualities of their day. The causes, aspects and results of such a driving and spontaneous concern will be discussed alongside topics customary in a more conventionally literary approach. Conducted in English. Not open to freshmen. Preference given to seniors. Enrollment limited to 50.

FERSEN

[RUSS 302  Soviet Literature in Translation (Not offered 1985-86.)
Beginning with a glance at Chekhov, a bridge between the old and the new, this course will survey the Russian literary scene from 1917 to the present. Readings include Blok, Zamiatin, Babel, Sholokhov, Pasternak, Solzhenitsyn, et al. In examining an era when politicization of the arts was taken for granted, it is instructive to observe how and with what degree of success the writers endeavored to maintain their artistic integrity. Conducted in English.

Hour

FERSEN]

RUSS 303  Tolstoy in Translation
A study in depth of the life and works of L. N. Tolstoy in the context of Russian and Western intellectual thought. Isaiah Berlin has employed the terms “hedgehog” and “fox” to describe the conflict between Tolstoy, the thinker, who struggled to find a single, universal principle in life and Tolstoy, the artist, who saw phenomena in their complexity and contradictory multiplicity. This dynamic tension is reflected in everything that Tolstoy wrote and colored his views on marriage and the family, the role of women, organized government and the Orthodox Church. Readings include War and Peace, Family Happiness, Anna Karenina, Kreutzer Sonata, What is Art? and The Death of Ivan Ilyich and The Devil.

Conducted in English.

FERSEN]

[RUSS 307  Dostoevsky in Translation (Not offered 1985-86.)
A study of the life and works of F. M. Dostoevsky in the context of Russian and Western intellectual thought. Readings include Dostoevsky’s early works Poor Folk, The Double and Notes from Underground as they develop the paradoxical dialectic of man; Dostoevsky’s first major novel, Crime and Punishment and The Possessed, which are studied in conjunction with the notebooks and early drafts; and Dostoevsky’s masterpiece, The Brothers Karamazov, which synthesizes the author’s philanthropic, psychological, philosophical and religious themes. Conducted in English.

Hour

PREDNEWA

RUSS 308(F)  Russian Theatre (Same as Theatre 315)
From the mummers’ Misha (bear) to Mayakovsky’s Klop (bedbug.) An excursion through Russian stage literature. Chekhov, although often referred to, will not be on the syllabus. Attention will focus on Russian stage classics less widely known in the West, by authors such as Fonvizin, Pushkin, Griboyedov, Ostrovsky, Tolstoy, Gorky, Mayakovskiy... perhaps even Blok. Gogol and Turgenev, of course, will be represented. A considerable amount of actual dramatic reading will be done in class alongside lectures and discussions. Conducted in English.

Hour

FERSEN

RUSS 310  Literature of the Gulag (Same as Russian, Soviet and East European Studies 402)
Literature of the Soviet period having as a common theme the phenomenon of the labor camps, whether experienced from the inside or witnessed from without. Class
discussions will not be limited to a literary analysis of the texts but will also consider
the larger problems of morality and survival. Readings from Solzhenitsyn, Shalamov,
Akhmatova, Ginzburg, N. Mandelshtam, Sinyavsky and others. Conducted in English.

GOLDSTEIN

RUS 401(S) Seminar in Russian Literature: Selected Genre (The Novel)
An extensive survey of a single literary genre: its origins, growth and development.
The novels examined will include: Lermontov's A Hero of Our Time; Turgenev's Rudin;
Dostoevsky's The Gambler; Zamiatin's We, among others. Critical analysis and integration
of the reading with previous work in other departmental courses. Conducted in Russian.
Required course in the major. Open to qualified juniors.

PREDNEWA

RUS 402(F) Seminar in Russian Literature: Special Authors (Russia's Women Poets)
An intensive study of the women poets who have influenced the course of contemporary
Russian lyrical poetry: Gippius, Akhmatova, Tsvetaeva, Akhmadulina. Their lives,
works and eras. Critical analysis and integration of the reading with previous work in
other departmental courses. Conducted in Russian.
Required course in the major. Open to qualified juniors.

GOLDSTEIN

RUS 493-W31-494 Senior Thesis

RUSS 497, 498 Independent Study

[World Literature in English 220 The Novel (Same as English 214) (Not offered 1985-86.)]
(See under World Literature for full description.)

RUSSIAN, SOVIET AND EAST EUROPEAN STUDIES

Chair, Professor NICHOLAS FERSEN§
Acting Chairman, Assistant Professor W. WAGNER§§

Advisory Committee: Assistant Professors: FAIRRIS, GOLDSTEIN, MACDONALD, PREDNEWA.

Beginning in 1984-85 for the Class of 1985, Russian, Soviet and East European Studies
was introduced as an interdisciplinary program focusing on the culture, historical de-
velopment, societies and politics of Russian and Eastern Europe. The program offers an
individualized course of study involving work in several departments and the opportu-
nity to study abroad. Attainment of some knowledge of the Russian language is re-
quired. Students may deepen their knowledge of the region through advanced indepen-
dent study in the Honors Program.

Students considering completing the program are urged to register with the Chair
of the program during their sophomore year. Each plan of study will be worked out
individually. Normally students will be expected to take six courses from at least three
different departments. One of these courses should be from among the "Concepts Courses"
listed below. Four should be from the "Core Courses" electives. The sixth course will be
the Russian Studies 402 "Capstone Course" required for this concentration. Students are
couraged to participate in semester and summer abroad programs in the Soviet Union
and Eastern Europe, credit for which will be determined on an individual basis. In
special cases the chair also may permit substitution of an approved Winter Study Project
for one of the electives.
All students enrolled in the program are required to demonstrate a knowledge of the Russian language equivalent to that obtained in Russian 101-102. Honors candidates will be expected to use Russian as well as other sources for their senior research project (reading proficiency in Russian at least equivalent to that obtained in Russian 103, 106 will be necessary for this research).

Fulfillment of the requirements of the program will be recorded on the student’s official transcript.

HONORS PROGRAM in Russian, Soviet and East European Studies

The Honors Program enables students to use their linguistic ability and interdisciplinary study of the region to explore a well-defined topic or issue in more depth. In addition to the above requirements, honors candidates must undertake an independent research project based on significant use of Russian language sources. This project will normally be completed during the senior year in an Independent Study Project (491 or 492) and independent Winter Study (W30). (Reading proficiency in Russian at least equivalent to that obtained in Russian 103, 106 will be necessary for this research.)

Students wishing to be considered as candidates for honors should submit to the chair of the program, preferably in the spring semester of their junior year, a written proposal outlining their intended research project. At that time a faculty adviser for the project will be chosen. The student, adviser and program chair then together will determine how the student’s work is to be presented and evaluated.

The final decision to award honors will be made by the faculty teaching in the program in consultation with the student’s adviser, and will be based on the results of the student’s research project and on his or her general performance in the program.

Concepts Courses

Students are required to take one of the following courses, preferably near the beginning of their program.

- Anthropology 101 The Scope of Anthropology
- Anthropology 209 Human Ecology
- Anthropology 314 Theory and Method in Anthropology
- Economics 204 Economic Development
- Economics 222 Comparative Economic Systems

Core Courses

Students are required to take four of the following area courses, normally chosen from at least three different departments. In special cases dispensation from the latter requirement may be given, and credit can be given for a WSP or for work done elsewhere.

Russian Language

- Russian 101-W-102 Elementary Russian
- Russian 103 Intermediate Russian
- Russian 205 Topics in Advanced Russian

Russian Literature (in Russian)

- Russian 106 Introduction to Russian Literature
- Russian 201 Nineteenth Century Prose
- Russian 202 Twentieth Century Prose
- Russian 401(S) Seminar in Russian Literature: Selected Genre (the Novel)
- Russian 402(F) Seminar in Russian Literature: Selected Authors (Russia’s Women Poets)

Russian Literature (in English)

- Russian 301 Russian Classics in Translation
- Russian 302 Soviet Literature in Translation
- Russian 303 Tolstoy in Translation
Russian, Soviet and East European Studies, Science and Technology Studies

Russian 307 Dostoevsky in Translation
Russian 308/Theatre 315 Russian Theatre
Russian 310 Literature of the Gulag

Russian, Soviet and East European History and Political Science
History 333 Forgotten Europe: The Habsburg Empire and Eastern Europe, 1848 to the Present
History 337 Russian History to 1855
History 338 Russian History, 1855 to the Present
History 373 Society in Revolution: Russia 1917 to 1931
History 375 Pathways to Utopia: Russian Radical Thought and Its Critics from Herzen to Lenin
Political Science 243 Socialist Regimes: Politics in Eastern Europe
Political Science 246 Soviet Government: Problems of Political Change in Communist Systems
Political Science 336 The Social and Political Philosophy of Marxism
Political Science 337 Marxist Thought and Controversy in the Twentieth Century
Political Science 348 Selected Topics in Soviet Politics
Russian 203 The Russian Revolution in Literature
Russian 208/Art 276 Art of the Russian Avant-Garde
Russian 210 The Russian Literary Intellect

RSEE 402 Literature of the Gulag (Same as Russian 310)
(See under Russian for full description.)

RSEE 491-W30, W30-492 Senior Project
To be taken by candidates for honors in Russian, Soviet and East European Studies.

SCIENCE AND TECHNOLOGY STUDIES
Chair, Professor DONALD DEB. BEAVER

Advisory Committee: Professor MOOMAW. Associate Professor TONG††. Assistant Professor HALSTEAD.

Science and Technology Studies (SCTS) is an interdisciplinary program concerned with science and technology and their relationship to society. In addition to being concerned with the historical development and a philosophical understanding of the ideas and institutions of science and technology, SCTS also examines their ethical, economic, social and political implications.

The role that science and technology have played in shaping modern industrial societies is generally acknowledged, but few members of those societies, including scientists and engineers, possess any understanding of how that process has occurred or much knowledge of the complex technical and social interactions that direct change in either science or society. The SCTS program is intended to help create a coherent course of study for students interested in these questions by providing a broad range of perspectives. At the present time courses are offered which examine the history or philosophy of science and technology, the sociology and psychology of science, the economics of research and development and technological change, science and public policy, technology assessment, technology and the environment, scientometrics and ethical-value issues.

To complete the requirements of the program, students must complete six courses. The introductory course and senior seminar are required, and three elective courses are chosen from the list of designated electives. Students may choose to concentrate their electives in a single area such as Technology, American Studies, Philosophy, History of Science, Economics, Environment, Current Science or Current Technology, but are encouraged to take at least one elective in History, History of Science or Philosophy. The
Science and Technology Studies

Sixth course necessary to complete the program is one semester of laboratory or field science in addition to the College’s two course science requirement. Other science courses of particular interest include Chemistry 200, Biology 282 (formerly 200) and Environmental Studies/Science and Technology Studies 220.

The program is administered by a Chair and an Advisory Committee of faculty who teach in the program. Students who wish to enroll normally register with the Chair and an Advisory Committee of faculty who teach in the program. Students who wish to enroll normally register with the Chair by the fall of their junior year.

SCST 201 Science, Technology and Human Values (Same as History of Science 201)

A study of the natures and roles of science and technology in today’s society, and of the problems which technical advances pose for human values. An introduction to science technology studies. Topics include: scientific creativity, the Two Cultures, the norms and values of science, the Manhattan Project and Big Science, the ethics and social responsibility of science, appropriate technology, technology assessment and various problems which spring from dependencies engendered by living in a technological society, e.g., computers and privacy, automation and dehumanization, biomedical engineering. Satisfies one semester of Division II requirement.

Open to freshmen.

D. Beaver

SCST 220 Environmental Engineering (Same as Environmental Studies 220)

(See under Environmental Studies for full description.)

SCST 401 Senior Seminar: Critical Perspectives on Science and Technology (Offered on a tutorial basis 1985-86; to be offered as a regular course beginning 1986-87.)

This is a research oriented course that is designed to give students direct experience in evaluating and assessing scientific and technological issues. Students will initially study particular techniques and methodologies by employing a case study approach. They will then apply these methods to a major research project. Students may choose topics from fields such as biotechnology, computers, biomedical engineering, energy and other resource development. Students will apply their background of historical, philosophical and technological perspectives in carrying out their study.

D. Beaver

Elective Courses

American Studies/History 319 Technology and American Culture, 1893 to the Present
Art/Environmental Studies 304 American Transport History
Biology 333 Sociobiology
Economics/Environmental Studies 210 U.S. and World Agriculture
Economics 217 Environmental and Resource Economics
Economics 363 The Economics of Technological Change
Environmental Studies 203 Energy: Science and Society
Environmental Studies/Religion 224 Nuclear War: History, Ethics and the Environment
Environmental Studies/Political Science 317 Environmental Law
Environmental Studies 403 The Environment, the Individual and Society
History of Science 208 From Cuneiform to Computer: Science, Technology and their Cultural Impact
History of Science 305 Technology and Culture
Philosophy 227 Philosophy and Technology
Political Science 226 Origins and Consequences of Nuclear War
Science and Technology Studies, Sociology

Courses of Related Interest

Anthropology 209 Human Ecology
Art 201 American Landscapes
Art/History of Ideas 247 Art and Science in the Renaissance (Deleted 1985-86.)
Art 442 Art and Science
Art/Environmental Studies 326 Environmental Design
Astronomy/Physics 334 Exploration of the Universe
Biology 282 (formerly 200) Human Biology and Social Issues
Chemistry 200 The Environment and the Physical Sciences
Computer Science/History of Science 131 Computers and Society
Economics 378 Industrial Organization
English/History of Science 342 American Literature and the History of Science
Environmental Studies 302 Environmental Planning
Geology/Environmental Studies 111 Environmental Geology and the Earth's Surface
Geology/Environmental Studies 206 Geological Sources of Energy
History 220 Modern Africa
History 355 (formerly 345) Man and Nature in America
Mathematics 234/Philosophy 206 Human and Artificial Intelligence (Deleted 1985-86.)
Mathematics 381 History of Mathematics
Philosophy/Political Economy 310 Moral Dimensions of Public Policy
Philosophy 333 The Biological Metaphor
Physics 100 Contemporary Physics
Physics 333 Explaining the World
Political Science 349 Modernization and Democratic Breakdown (Deleted 1985-86.)
Sociology 202 Sociology of Knowledge and Belief

SOCIOMETRY (Div. II)
Department of Anthropology and Sociology
Departmental Staff for 1985-86

Chair, Associate Professor ROBERT JACKALL

Professor: FRIEDRICH. Associate Professor: JACKALL. Assistant Professor: MARKS. Visiting Bernhard Professor: DUSTER.

MAJOR PROGRAM

Sociology studies the intricacies of modern industrial societies by examining the intersection between biography, social structure, culture and history. Sociology courses introduce students to classical and contemporary social thought about men and women and society, to the systematic analysis of social institutions and social interaction, and to the social analysis of modern culture. The Sociology major at Williams stresses the humanistic tradition of sociology; it also grounds students in various methodological approaches to understanding how social reality is constructed.

*Requirements

For the degree in Sociology, students must complete a minimum of nine courses including:

a. 101 Invitation to Sociology
b. 202 Sociology of Knowledge and Belief
c. 212 Empirical Social Science (Same as Political Science 206 Empirical Political Science)
d. 401 Senior Seminar For 1985-86, Sociology 385 is designated as the Senior Seminar.
e. Five elective courses in Sociology, at least two from the 300 level.

*These are the requirements for the Sociology major beginning in 1985-86; students currently majoring in Sociology should consult with the department chairman for their requirements.
THE DEGREE WITH HONORS IN SOCIOLOGY

Applicants must submit an outline of a yearlong research proposal at the time of registration in the spring of their junior year. If the quality of their prior work in Sociology appears high and if they have mastered the research skills appropriate to the projected research, they will be permitted to register for 493-W31-494 in which they will write a thesis. If their overall work in the major has continued to be of a high quality and the thesis, upon completion, is deemed of satisfactory quality, they will receive Honors in Sociology.

SOC 101 Invitation to Sociology

An introduction to the sociological analysis of modern society. The course focuses on classical and contemporary perspectives on men and women and society, coupled with an introduction to systematic institutional analysis. An appraisal of how biography, social structure, culture and history intersect as seen by Marx, Durkheim, Weber, Freud, Veblen, Mannheim, Simmel, Mead, Merton, Mills, Berger and Goffman. Special consideration to the social and cultural problems of capitalism, rationality and irrationality in modern institutions and organizations, and the social psychological dilemmas facing the individual in modern society. This year, the course will do detailed institutional analyses of work, total institutions and the historical formation of publics and masses.

Hour

SOC 202(F) Sociology of Knowledge and Belief

Drawing upon the work of the sociologist Peter Berger and illustrated initially in a reading of Robert Pirsig’s Zen and the Art of Motorcycle Maintenance, the course will focus upon the role which socially constructed and internalized belief plays or does not play in “everyday life” and in the communities sustaining the disciplines of history, the natural and social sciences, philosophy, mathematics and theology. Students will complete the semester with a single major essay in which they will attempt to describe: 1) the socio-cultural forces which may have shaped their fundamental beliefs and the confidence they placed in the truth claims of the communities of knowledge noted above; and 2) the modifications, if any, which such awareness and the present course may have engendered.

Hour

SOC 203(S) Social Inequality

A sociological analysis of structured social inequality in the modern world. Emphasis on the historical development of economic classes, status groups and power elites. Topics include: the nature of class and status-deprivation, power and powerlessness; the personal meanings of inequality and the quest for social mobility; the emergence of mass society; and the role of bureaucracy and the centralized state in mediating conflict and in maintaining the social order. Particular attention will be given to the United States but a comparative perspective will also be used.

No prerequisite.
Open to freshmen.

Hour

SOC 205 (formerly 106F) The Family in Literature and Society

This course will explore the structure and dynamics of the American family by examining external influences on the family as well as the internal processes of this basic social unit. Assuming literature to be an illumination of social life, the course utilizes short stories and selections from novels to illuminate the workings of the American family. Students will also keep weekly journals analyzing their own families from the perspective of the “disinterested” sociological observer. Final projects more general in nature, covering such topics as divorce, child-rearing patterns or communal living, will be required. There will also be a final oral presentation.

No prerequisite. Open to freshmen.
SOC 206 Comparative Race and Ethnic Relations
An examination of the importance of class, race and ethnicity in the United States and other advanced societies. Historical topics such as slavery, colonialism and immigration will be highlighted. The persistence of racial and ethnic identities also will be investigated.
No prerequisite.

Hour

SOC 207 Sociology of Education
After the class as a whole is exposed to some of the most provocative recent social research of relevance to education (from pre-school through the subculture of higher education), each student will “contract” with the instructor to complete the course within a mutually agreed upon format.
No prerequisite.

Friedrichs

SOC 208 Sociology of Religion
After reviewing the sources of the classic social scientific critique of religious faith (that it is “functional though unwarranted”), the course will examine the assumptions about religion that inform the contemporary work of such sociologists as Bellah, Parsons, Berger, Greeley and Fenn. Among these assumptions are: the theme of life as gift with death as its reciprocation; the widely-shared, faith-eliciting “rumors” of a trans­cental reality; the persistence of hope in the face of tragedy, the absurd and death; the sacred sources of faith in the secular and the secular sources of faith in the sacred; and various conceptions of faith—as means, end, quest or trust in one’s finitude. There will be a single major essay in which students will use their own experiences to assess the varying perspectives confronted in the course.
No prerequisite.

Friedrichs

SOC 209(S) Sociology of Deviance
This course will analyze the ways in which sociologists define and categorize deviant behavior, emphasizing both historical and contemporary perspectives. It will explore the processes by which individuals come to violate commonly accepted rules and it will account for structural variations in the rates of deviant behavior. The course will also examine the role of professionals, social agencies and culture in the treatment, containment and social control of deviant behavior. Topics to be covered include madness, crime, child abuse, alcoholism and issues of deviance associated with sexuality and gender.
No prerequisite.

Hour

SOC 210(F) Law, Deviance and Social Control
The course begins with an analysis of various ways that people conceive normality and deviance, among them the statistical, organic, moral, illness and “common sense” conceptions. The course proceeds then to analyze the social and political contexts within which certain forms of behavior get systematically characterized and treated as deviant, while other forms are systematically ignored or normalized. The course will consider various issues in the sociology of law, focusing in particular on law as a mechanism of social control. We will be concerned especially with notions of law as a codified reflection of popular sentiment as contrasted with ideas of law as order imposed by legal authority. Throughout the course, both structural (that is, using the categories of power and class) and interactional approaches will be employed to analyze specific forms of deviant behavior and forms of social control. Particular attention will be paid to white collar crime, to the social history of mind-altering substances, and to theories of homicide and suicide.
No prerequisite.

Hour

Duster
Sociology

SOC 211(S) Community and Society
This course will explore the transformation of American community life from the country village to the major megalopolis, analyzing ecological characteristics, ethnic and racial bases, stratification, crime and problems of social control. Comparative analyses of other communities in both the developed and developing world will also be made.
This course is not available to students who took Sociology 211 in 1982-83 or 1983-84. No prerequisite.
Hour

SOC 212(F,S) Empirical Social Science (Same as Political Science 206, Empirical Political Science)
(See under Political Science for full description.)

SOC 214 The Making and Meaning of Popular Culture (Same as American Studies 314)
An examination of the production and symbolic significances of popular culture. After surveying European backgrounds—popular cultural forms in medieval society, the emergence of middle class culture with the bourgeois transformations of the old order, the commercialization of leisure in the eighteenth century—the course will turn to American popular culture. Topics will include: the transformation of American culture with the triumph of industrial capitalism; elites, cultural communities and the dissemination of cultural forms; the occupational communities that manufacture mass culture; and the meanings of the heroes, myths, fads and icons of American popular culture. Special attention will be paid throughout the course to the institutional, community and occupational milieus in which culture, both high and low, is generated, from coffee houses, salons, bohematics, cafes and cabarets, to Hollywood movie lots and Madison Avenue offices.
No prerequisite.

SOC 218 Seminar: America and Japan, A Sociological Comparison
The course analyzes, evaluates and compares characteristic norms and institutions of both American and Japanese society in light of two concerns: first, what each society might learn from the other; and second, which norms and institutions of the two are better suited for the needs of the developing world. Common readings and critiques of Heilbroner's An Inquiry Into the Human Prospect and Reeves' American Journey: Travelling with Tocqueville in Search of "Democracy in America", as well as readings on Japan, will initiate the seminar. Students will then individually select readings with the assistance of materials and bibliographies provided by the instructor. In addition to periodic class reports on those readings, students will write a single major essay addressing the main concerns of the course.
Open to freshmen. No prerequisite.

SOC 304(F) Business, Bureaucracy and Society
A sociological examination of business in American society, with a focus on large corporations and corporate managers. Topics include: the decline of entrepreneurial enterprise and the bureaucratization of industry; the impact of bureaucracy on managerial character; the structure and experience of managerial work; the ethical dilemmas of managers in decision-making; managerial ideologies and claims to legitimacy; and corporate social responsibility in an era of economic decline.
Enrollment limited to 20. Preference to upperclassmen.
SOC 305  The Afro-American: A Sociological Perspective
An exploration and analysis of the social, political and economic forces that have shaped the Afro-American experience in the United States with an emphasis on areas of debate and controversy. Topics to be covered include culture, family structure, the role of women, stratification and politics.

SOC 306 (formerly 201S)  Conflict, Crisis and Change in Western Social Thought
An evaluation of social theories, central to the history of Western social thought and sociology, which seek to explain the persistence of social cohesion in the face of periodic conflict, crisis and change. Such theories will be presented in their historical context and then "tested" against evidence of cohesion in the face of such stress in revolutionary, political, utopian, religious, military and pluralistic "communities." Collectivities to be examined are likely to include a Chinese school during the cultural revolution, the church-state that is Israel, a "Walden Two" experiment, a contemporary fringe religious movement, West Point and its graduates and a war-time civilian detention camp. The course will follow a socratic, rather than lecture, format.

SOC 310(F)  Sociology of Work and Occupations (Not offered 1985-86.)
A sociological examination of the shape and meaning of what people do all day. Topics include: an historical survey of attitudes towards work; an analysis of the structure and experience of craft work, industrial and clerical occupations and managerial and professional work; the impact of bureaucratic work on character; occupational and professional ethics and ideologies; the impact of work on life-styles and political beliefs. An examination as well of the theory, practice and implications of workplace democracy.

SOC 385  Seminar: The New Underclass in America
An examination of the political, economic and cultural forces that are shaping a newly forming and possibly "permanent" underclass in the United States. Guest lecturers from differing perspectives and quite different areas of expertise—including sociology, economics, politics, journalism, literature and film—will examine various aspects of this problem. The course will include a study of such disparate but related phenomena as plant closings, new ethnic immigration patterns, the export of capital to developing countries, and the burgeoning illegal markets in selected communities across the nation. The course will also appraise various cultural expressions of and about the underclass experience.

SOC 397, 398  Independent Study

SOC 401  Senior Seminar
Topics of contemporary sociological interest studied in seminar fashion. The purpose is to encourage students to exercise their knowledge of classical and contemporary theory and their skills in institutional analysis developed in pursuit of the major program. Topics for the seminar change with the rotating leadership of different members of the department.

Topic for 1985-86: Sociology 385, The New Underclass in America, is designated the senior seminar for this year.
SOC 450  Nonviolence and Social Change

“All I ask is that, in the midst of a murderous world, we agree to reflect on murder and make a choice.” We certainly may not be able to overcome the use of violence, or we may choose not to. However, as Albert Camus requests, we should at least be conscious of the choices. Violence is so pervasive in the modern world, from the international level down to the interpersonal, that any hope for a better world must include a vision of nonviolent alternatives.

This course will examine the theoretical developments and the actual historical struggles that produced the idea of nonviolence as both a philosophy of life and a strategy for social change. It looks in particular at the writings of authors like Gandhi, Martin Luther King, Barbara Demming, Gene Sharp and George Lakey as well as at actual campaigns of civil disobedience against laws thought to be unjust. The course also aims to move our study from the academic arena to the world of affairs by sharpening our own understanding of the present situation and our own visions of alternative futures.

The structure of the course is innovative; a committee of students, professors/advisees, and teaching assistants run the class. Professors are not usually in the classroom. Classes are student-led and oriented towards intensive discussion of materials. A serious commitment to a close reading of the material and active engagement in the process of the class are vital to everyone’s learning experience. Students will select advisees from a multi-disciplinary group of professor/advisees who will maintain a dialog over the semester with students about final projects. Students will receive descriptive grades from their professor/advisees. There will be a day and an evening section. Discussion three hours per week, visiting lecturers and workshops, two and ½ hours per week.

Requirements, faithful attendance, engagement in discussion, four one-page position papers and a final project. There will be two sections and each section will be limited to 15.

Hour

SOC 491-W30, W30-492  Independent Project

SOC 493-W31-494  Senior Thesis

THEATRE (Div. I)
Departmental Staff for 1985-86

Chair, Associate Professor ARDEN FINGERHUT

Professor: BUCKY. Associate Professor: FINGERHUT. Visiting Assistant Professor: KNIGHT. Lecturer: CATALANO. Instructor: BROTHERS. Production Management Intern: SHORB.

As a reflection of the theatre's historical relationship to literature and the arts, stage production is studied in the context of the literary and artistic movements which have informed theatrical endeavor. The major program in Theatre emphasizes the collaborative nature of the discipline by drawing upon courses offered by faculty of the Language, Literature, Music and Art Departments. Although students will be equipped to proceed to graduate and professional schools in Theatre, the major is primarily directed towards those interested in studying the theatre as an artistic and cultural phenomenon. Because a deep understanding of theatre arts requires training and experience with the synthesis on stage, the major includes curricular study of production and performance, as well as continued participation in departmental stage production.

Williamstheatre, the production arm of the Department of Theatre, operates under the supervision of the departmental faculty. Major productions are mounted on the MainStage of the Adams Memorial Theatre and a season of laboratory and experimental productions of all kinds is produced in the new DownStage Theatre. Participation in acting or technical work is open to all members of the Williams College community.
Students majoring in Theatre will be asked to consult regularly with departmental advisers in devising the sequence of courses and production participation which will constitute their major program.

Courses at the 100 level are open to freshmen and sophomores; 200 and 300 level courses require at least sophomore and junior standing respectively.

**MAJOR PROGRAM**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>Theatre 101</td>
<td>Introduction to Theatre</td>
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<tr>
<td>Theatre 102</td>
<td>Introduction to Technical Theatre</td>
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<td>Theatre 201</td>
<td>Concepts of Theatrical Design</td>
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<tr>
<td>Theatre 203</td>
<td>Interpretation and Performance</td>
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<tr>
<td>Theatre 401</td>
<td>Seminar for Senior majors</td>
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and

Two courses from Theatre 309-315 Studies in Dramatic Literature

and

Two courses from: Theatre 204 Interpretation and Performance

Theatre 301 Advanced Studies in Technical Theatre

Theatre 302 Scenic Design

Theatre 303 Stage Lighting

Theatre 305 Costume Design

Theatre 306 Advanced Acting

Theatre 307 Stage Direction

Theatre 308 Directing Workshop

Theatre 397, 398 Independent Study

and

Two courses from any one of the following groups (a, b or c):

a. English 201 Shakespeare's Major Plays
   English 202 Modern Drama
   English 204 The Feature Film
   French 301 Classical Theatre
   French 306 The Idea of Theatre in Twentieth Century France
   Spanish 303 Spanish Theater of the Golden Age
   (Courses in this group to be chosen so that they do not duplicate in essential content the body of dramatic works dealt with in Theatre 309-315 taken to satisfy the major requirement.)

b. Art 110 Drawing I
   Art 111 Studio Foundation I
   Art 112 Studio Foundation II
   Art 210 Drawing II

c. Music 106 The Opera
   Music 107 Verdi and Wagner
   Music 114 American Music
   Music 116 Music Since 1945

**Production requirement for the major:** all Majors in Theatre are required to participate in a minimum of eight Williamstheatre productions after fulfilling the laboratory requirement for Theatre 102. Participation in at least two of the eight must be in technical production. Assignment to productions is normally made in consultation with the Department.

Theatre majors are strongly urged to include dance and fencing in fulfilling their Physical Education requirements.

**THE DEGREE WITH HONORS IN THEATRE**

Students who intend to apply for the degree with honors must consult with the department early in their junior year. At that time proposals for a specific course cluster chosen to constitute an honors program must be submitted to the department for its approval. A recommendation for graduation with honors will be made on the basis of
consistently superior performance in all aspects of the major program, and fulfillment of the honors requirements with distinction.

The honors program consists of two elective courses outside the Theatre Department, clearly related to the execution of a thesis or a project in directing or design, and completion of the project in Theatre 491 or 492 or the thesis in Theatre 493 or 494. A Winter Study Project (W30 or W31) may be taken to augment the work completed in one of these Theatre courses, but it is not required.

Courses elected in fulfillment of the honors program are not applicable to the normal major requirement.

THEA 101 Introduction to Theatre
A basic study of the nature of theatre. Elements of this art form will be viewed through the eyes of various theatrical collaborators: the playwright, director, actor/actress, designer, producer, audience. Representative plays, classical and contemporary, will be read with the emphasis upon theatrical interpretation. Enrollment limited to freshmen and sophomores.
Hour

THEA 102 Introduction to Technical Theatre
An intensive production-oriented study of technical theatre including the interpretation of design and technical-drawings, the theory and techniques of scenic construction and rigging, and elements of theatre organization. Four hours of studio work per week in the shops of the theatre or the equivalent participation in Williamstheatre productions is required. Prerequisite, Theatre 101 or permission of the instructor. Enrollment limited to freshmen and sophomores.
Hour

THEA 201 Concepts of Theatrical Design
A general introduction to theatrical design concerned, primarily, with developing in the student a sense of theatrical style and form. This course considers the problems of translating a dramatic text into an overall design concept, and the evolution into specific setting, lighting or costume designs. Theories and ideas concerning the stage space will also be discussed. Written analyses and design projects and theatre production work are required. Prerequisite, Theatre 101 or permission of the instructor.
Hour

THEA 203, 204 Interpretation and Performance
The development of technical skills and intellectual and emotional resources required for the actor. Included will be the study of voice and movement, characterization, staging fundamentals, performance styles, textual analysis and control. In addition to written assignments, committed participation in the preparation and performance of production exercises will be required. 203 may be taken for credit alone; however, 203 is prerequisite for 204. Prerequisites, Theatre 101, 102. Enrollment limited to 15.
First semester: Knight
Second semester: Bucky
Hour

THEA 301 Advanced Studies in Technical Theatre
A detailed study of advanced topics in technical theatre which will focus on the responsibilities of technical direction and stage management in theatrical production. Such topics as theatre sound, the theory of structures, properties and special effects, stage technology and equipment, and advanced techniques of scenic construction will be studied and every effort will be made to respond to the special technical interests of students in the class. In most instances a Williamstheatre production assignment, re-
fleeting individual student's interests, will be included in the requirements for completion of the course.
Prerequisite, Theatre 102.

THEA 302  Scenic Design
A study of basic scenic design. This course will consider design styles and principles and techniques of sketching and model building. Student design projects and studio work in the shops of the theatre are required.
Prerequisite, Theatre 201 or permission of the instructor.

THEA 303(S)  Stage Lighting
An introduction to the art of stage lighting. Basic design principles are considered together with instruction in instrumentation, color theory, electricity and script analysis. Individual projects and theatre production work are required.
Prerequisite, Theatre 201 or permission of the instructor.

THEA 305  Costume Design
A study of basic costume design for the stage, emphasizing the interpretation of dramatic texts in terms of characterization. The class will focus on the possibilities for interpretative support provided by costume and the translation of a design sketch into fabric. Student design projects and studio work in the costume shop will be required.
Prerequisite, Theatre 201 or permission of the instructor.

THEA 306  Advanced Acting
An intensive course for experienced acting students which will concentrate on scene studies from plays of various genres and periods.
Prerequisites, Theatre 203, 204 and permission of the instructor.

THEA 307  Stage Direction
An introduction to the resources available to the Stage Director for translating interpretative concepts into stageworthy physical realization. Kinetic and visual directorial controls, as well as textual implication and elements of dramatic structure, will be studied in detail. Committed participation in the preparation and performance of production exercises will be required.
Prerequisites, Theatre 203, 204 or permission of the instructor.

THEA 308  Directing Workshop (Not offered 1985-86.)
A studio workshop dealing with the preparation, performance and evaluation of brief dramatic exercises and one-act plays. The specific demands of television production will be used as a model for analysis of such theatrical elements as focus, the construction of artful juxtaposition and the rhythmic implication of dramatic texts. The emphasis, however, will be on the director's confrontation with the text, the actors and the directorial controls chosen in support of interpretative concept.
Prerequisite, Theatre 307.

THEA 309-315  Studies in Dramatic Literature
A study of important works of dramatic literature, with special emphasis upon theatrical interpretation. The body of works selected will represent a common historical period, style, playwright, nationality or critical approach.
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Prerequisite, Theatre 101 or permission of the instructor.
313 Samuel Beckett’s Theatre (Same as English 365)
   (See under English for full description.)
315 Russian Theatre (Same as Russian 308)
   (See under Russian for full description.)

THEA 397, 398 Independent Study

THEA 401 Seminar for Senior Majors
   This seminar will take as its focus one major dramatic work currently in production. Using the preparation, rehearsal and performance of the work as a model for discussion, the seminar will synthesize all prior work in the major. Oral and written reports will deal with the critical, historical and aesthetic context of the work in production and a substantial final research project or paper will be required. Open only to seniors majoring in Theatre. Hour

THEA 491, 492 Senior Production

THEA W30 Senior Production
   May be taken to augment work of 491 or 492, but not required.

THEA 493, 494 Senior Thesis

THEA W31 Senior Thesis
   May be taken to augment work of 493, 494, but not required.

Of interest to advanced students:

THE NATIONAL THEATRE INSTITUTE

   The Department of Theatre is affiliated with the National Theatre Institute, which offers additional theatre study through its resident semester program. The Institute is fully accredited by Connecticut College and is a member of the Twelve-College Exchange. Limited numbers of Williams students can therefore be selected to take a full semester of intensive theatre study at the NTI, located at the Eugene O’Neill Memorial Theatre Centre in Waterford, Connecticut. During the semester, students from participating colleges live and work as members of a theatre company gaining experience with professional theatre artists in a workshop environment. Early application is essential.

WILLIAMS-OXFORD PROGRAM

   Director, Professor DANIEL O’CONNOR

   Williams College sponsors a yearlong program of studies at Oxford University in cooperation with Exeter College, Oxford, where the courses are taught and many of the tutorials held. While the central focus of the program is on British and Commonwealth studies, it also includes instruction in other fields for which Oxford is particularly noted or which are represented only marginally or infrequently in the Williams curriculum. Special provision is made for accommodating student interest or curricular needs that extend beyond the fields of study listed below. No major or departmental interest, therefore, is necessarily excluded. The mode of instruction is by tutorial and seminar with a preponderance of the former. Students may also enrich their Oxford experience.
by availing themselves of the broad array of lecture courses that the University offers each term. Students enroll for the full academic year, which consists of the Michaelmas, Hilary and Trinity terms. These are each eight weeks long (running in 1985-86 from October 13 to December 7, January 19 to March 15, April 27 to June 21) and there are two six-week vacations between.

The program is designed to offer the fullest possible integration of the students into the intellectual and social life of one of the world's great universities. Students have access to the University's lectures and museums and to some of its many libraries. They are closely associated with their counterparts at Exeter College, are able to share in the social life of the College, to use its athletic facilities and to dine in Hall once a week. They are also admitted to membership in the Oxford Union Society, which, in addition to its debating activities and club rooms, possesses lunching and dining facilities and the largest lending library in the University. They live at Ephraim Williams House, Williams' new study center at Oxford, which is equipped with its own library and common room as well as with kitchen, dining and laundry facilities. It is within easy walking distance to the University Parks, convenient to the attractive Summertown complex of shops, restaurants and boutiques, and about five minutes by bicycle from the heart of the University.

Students interested in applying may obtain further information through the Dean's Office. Before applying they should consult with the chairman of their major department to ensure that they will not encounter difficulties in meeting the sequence requirements for their major. Application deadline is March 1, of the preceding academic year. Prior to Spring break students will be notified of the outcome of their application.

Course of Study

During the course of their year at Oxford students are expected to complete work in four subject areas. *One of these subject areas must be chosen from Group A.

Group A: Seminar Subjects

These are explored in discussion/lecture courses, each of which runs for the duration of the first two terms (Michaelmas and Hilary) and meets twice a week. They require periodic written papers and a two hour examination at the end of each term.

History/Philosophy 201  The Age of Genius: British Intellectual History, 1603-1714

A survey of philosophical, religious and scientific thought principally through a close reading of texts by Francis Bacon, Hobbes, Locke, Berkeley, Boyle and Newton, but seen in the context of the political and cultural history of the period.

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History/Political Science 202  British Politics and History, 1880-1980

This course covers the emergence of modern British society and focuses upon a number of persistent problems in politics and economic policy—Britain's relation to the world economic order, the rise of dissenting movements (especially feminism and organised labour), the decline of empire and the stresses of two world wars, and the search for a viable foreign and defense policy in the nuclear age. It will also consider the social role of literature through such writers as G.B. Shaw, H.G. Wells, the Bloomsbury Group and the poets of the Age of Auden. It falls into two parts: Term I will run from 1880-1918. Term II will run from 1918-1980. There will be two classes a week. The course will be examined by a paper in each term and two-hour sit-down examinations.

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Group B: Tutorial Subjects

Students study one of the following subjects each term. Each subject involves the following three components. a) Tutorials. These are weekly individual meetings of one or two students with Oxford tutors at which the students present an essay on an assigned topic and discussion focuses on that essay. Eight essays in all will be written for
Williams-Oxford Program

each tutorial subject. b) Set Readings. At the start of the year tutors will assign a list of readings which students will be expected to complete on their own during term time and the two vacations. c) Lectures. Students will follow a pertinent lecture course (consisting usually of eight lectures) offered by the University in the general area of the tutorial subject.

Art (History) 203  English Architecture: 1660-1720
Biology 204  Ecology of Flowering Plants
Biology 205  Evolution: Ecological, Geographical and Population Genetics
Economics 206  British Economic History since 1820
Economics 207  Classical Economic Thought. Smith, Ricardo and Marx
Economics 208  Economics of Communist Countries
English 209  History of the English Language
English 210  English Literature from 1509-1785
English 211  English Literature from 1785-1832
English 212  Special Authors
Students pick one of these pairs and may ask to concentrate on one author.
  (a) (i) Chaucer and/or (ii) Langland.
  (b) (i) Spenser and/or (ii) Milton.
  (c) (i) Dryden and/or (ii) Pope.
  (d) (i) Wordsworth and/or (ii) Coleridge.
  (e) (i) Tennyson and/or (ii) Browning.
  (f) (i) Yeats and/or (ii) Eliot.

English 213  Special Topics
(a) The English Novel. (Students may, if they wish, confine themselves (i) to either eighteenth century or nineteenth century or twentieth century novelists; or (ii) to the detailed study of one or two of the following novelists: Richardson, Fielding, George Eliot, Dickens, Henry James, James Joyce, D.H. Lawrence, Virginia Woolf.

English 214  The English Drama
Concentration in one of three periods:
  (i) 1400-1640, excluding Shakespeare, (ii) 1640-1890, (iii) 1890 to the present age.

English 215  Victorian Thinkers

Geography 216  The Geographical Environment: Physical
The nature of the major world physical environments; their internal interrelationships and their significance to man, plants and animals; processes of environmental change with particular reference to those that directly affect man; man as an agent of change in the physical environment.

Geography 217  The Human Geography of the United Kingdom and France
Evolution of the human geography of the United Kingdom and France: the major geographical divisions of the two countries: economic, social and political changes at the national scale since the Second World War and their regional and environmental effects; a comparison of the resulting problems and of attempts to solve them.
History 219  The Making of England. From the Roman Conquest to 1485
History 220  The Emergence of England as a World Power: 1689-1815
History 221  Imperialism and Nationalism: 1830-1966
    Addresses theories of imperialism and offers the possibility of focusing on one
    or more of the following areas: 1) South Asia; 2) Tropical Africa; 3) Australasia,
    British North America and South Africa; 4) Latin America; 5) Maritime Southeast
    Asia; Malaysia, Indonesia and the Philippines
History 222  Civil Disobedience and Constitutional Experiment in India: 1919-1931
Philosophy 223  General Philosophy from Descartes to the Present Day
Philosophy 224  Moral and Political Philosophy
Philosophy 225  Russell and Wittgenstein: 1905-1921
Political Science 226  Modern British Government and Politics
Political Science 227  Communist Government in the Soviet Union and Eastern Europe
Political Science 228  Classical Political Thought up to 1800
Political Science 229  Foundations of Modern Social and Political Thought

**230 Specially arranged subjects:**
Specially arranged tutorial work in some subject area other than those covered
by 201-229 or in some nonlisted subfield of the areas covered. E.g., Ancient or
oriental languages and literatures, biblical studies, chemistry, engineering, applied
mathematics, nineteenth and twentieth century English history, Old English, phys­
ics, psychology, social anthropology, theology.

*With the director's permission students may choose two of their subject areas from
Group A and two from Group B.

**Students requesting this option should realize that it may not always prove possible
to meet their requests. Accordingly, they should indicate as a backup choice one of the
subject areas covered by 203-229.

Lectures
Oxford University offers a very rich and broad array of lecture courses most of which
are open to students enrolled in the program. Some of these relate directly to the tutorial
subjects students will be taking. Others provide an opportunity to explore new territory
or pursue further interests. These lecture courses require no reading; nor do grades or
credits attach to attendance at them.

Grades and Credits
Seminar work is evaluated in the customary fashion and a final grade assigned at the
end of the Hilary Term. Work in the three tutorial subjects, however, is evaluated differ­
ently. A tutorial grade is assigned at the end of each term and counts as one half of the
final grade for each subject area. The remainder of that final grade is determined on the
basis of a three hour examination. Students should view tutorials, set readings and
lectures, then, as aids to help them prepare for the three final examinations they will be
taking at the end of the year during the June examination week.

Upon satisfactory completion of the requirements for the Williams-Oxford Program
students receive academic credit for a full Williams academic year. Their grades are
incorporated into their Williams transcript and are included in the computation of
their Grade Point Average (G.P.A.).
Women's Studies can be defined as the study of women, past and present, in all fields of inquiry. The program in Women's Studies is therefore open to students majoring in a wide variety of disciplines, who wish to focus in a coherent way on women and women's achievements as part of their education. In addition, the program is designed to introduce students to the new scholarship in Women's Studies, which has brought neglected material into established fields and raised important methodological questions about sex and gender that cross disciplinary boundaries and challenge established intellectual frameworks.

To fulfill the requirements of the Women's Studies program, students will take five courses. Women's Studies 101, *Introduction to Feminist Thought*, introduces students to major works in the development of modern feminist thought and to issues central to Women's Studies. Following this introductory course, students elect three Women's Studies courses from at least two departments. Electives will vary according to the course offerings each year. In order to confront the breadth of issues raised by Women's Studies as a new mode of inquiry, students are encouraged to distribute their choices in as wide a range of disciplines as possible. In their senior year, students are required to take Women's Studies 401, a senior seminar in which they will write a substantial essay in an area of special interest. The seminar is also designed to explore questions of methodology in relation to a topic in Women's Studies that will vary from year-to-year.

Students are urged to register in the Women's Studies Program by the Fall semester of their junior year. In consultation with the chair, each student will then choose a faculty adviser.

**Sequence Courses**

- Women's Studies 101 Introduction to Feminist Thought
- Women's Studies 401 The Senior Seminar

**Elective Courses**

Students will elect three Women's Studies courses from at least two different departments. See department listings for full descriptions.

- American Studies/History 308 Women and the Family in Modern America
- American Studies/History 310 Family and Community in Early America
- American Studies/History 317 Women, Womanhood and Reform: The Nineteenth Century American Experience (Deleted 1985-86.)
- American Studies/History 319 Technology and American Culture, 1893 to the Present
- Anthropology 222 Women in Cross-Cultural Perspective
- Biology 217 Primate Biology and Behavior
- Economics 203 Women, Family and Economics
- English 219 Literature by Women
- English 317 Elizabeth and the Elizabethans
- English 377 The Female Body of Imagination
- History 224 Women in Western Culture
- Political Science 311 The Politics of Sex Roles: Women, Men and Political Behavior
- Political Science 236 Political Thinking About Women
- Religion 235 Women in Patriarchy: The Jewish Experience
- Sociology 205 (formerly 106F) The Family in Literature and Society

Students are encouraged to consider the following courses of related interest. These do not, however, fulfill the elective requirement. See the “Guide to Women's Studies at Williams” for descriptions.
Women’s Studies

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>American Studies 201</td>
<td>American Lives</td>
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<tr>
<td>Anthropology 224</td>
<td>Anthropology of the Middle East</td>
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<tr>
<td>Anthropology 316</td>
<td>The Self in Culture and Society</td>
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<tr>
<td>Art 451</td>
<td>Baroque Art and Gender Roles</td>
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<tr>
<td>Biology 217</td>
<td>Primate Biology and Behavior</td>
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<tr>
<td>Biology 282 (formerly 200)</td>
<td>Human Biology and Social Issues</td>
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<tr>
<td>Biology 333</td>
<td>Sociobiology</td>
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<tr>
<td>Chemistry 200</td>
<td>The Environment and the Physical Sciences</td>
</tr>
<tr>
<td>Classics 101</td>
<td>Classical Literature (Fuqua)</td>
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<td>Classics 104</td>
<td>Greek Mythology</td>
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<tr>
<td>Economics 365</td>
<td>Economics of the Family (Deleted 1985-86.)</td>
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<tr>
<td>English 207</td>
<td>Literature of the American Renaissance (Deleted 1985-86.)</td>
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<tr>
<td>English 208</td>
<td>Introduction to American Literature</td>
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<tr>
<td>English 304</td>
<td>Dante</td>
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<tr>
<td>English 313</td>
<td>Renaissance Love Stories</td>
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<tr>
<td>English 346</td>
<td>Southern Fiction/Southern Fictions</td>
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<tr>
<td>English 351</td>
<td>Walt Whitman, Emily Dickinson and their Contemporaries</td>
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<tr>
<td>English 354</td>
<td>Contemporary American Poetry</td>
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<td>English 356</td>
<td>Hughes, Hurston, Wright</td>
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<td>English 373</td>
<td>Modern Critical Theory</td>
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<tr>
<td>German 301</td>
<td>Age of Goethe</td>
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<td>History 201</td>
<td>China to 1800</td>
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<td>History 202</td>
<td>Modern China</td>
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<td>History 220</td>
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<td>History 253</td>
<td>Modern Japan</td>
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<td>History 303</td>
<td>American Labor History</td>
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<td>History 332</td>
<td>Class, Gender and Community in China 1680-1980</td>
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<td>History 336</td>
<td>The American West Since 1848</td>
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<tr>
<td>History 338</td>
<td>Russian History, 1855 to the Present</td>
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<tr>
<td>History 339/Religion 227</td>
<td>Religion and Revolution in Iran</td>
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<td>History 364</td>
<td>Social Change in China</td>
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<td>History 401</td>
<td>Studies in the American Tradition: Types of Social Change and the Historical Understanding</td>
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<tr>
<td>Mathematics 381</td>
<td>History of Mathematics</td>
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<tr>
<td>Political Science 103</td>
<td>Justice, Freedom and Equality: An Introduction to Western Political Philosophy (W. Brown)</td>
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<td>Religion 205</td>
<td>Religion and Modern Secularism</td>
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<td>Religion 213</td>
<td>Judaism and Islam</td>
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<td>Religion 222</td>
<td>Problems in Religious Ethics</td>
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<td>Religion 228</td>
<td>Women Saints</td>
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<tr>
<td>Sociology 203</td>
<td>Social Inequality</td>
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<tr>
<td>Sociology 310</td>
<td>Sociology of Work and Occupations</td>
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</tbody>
</table>

**WOST 101(S)**  **Introduction to Feminist Thought (Same as Philosophy 107)**

This course introduces students to major works of modern feminist theory and to some issues central to Women's Studies. It is divided into four parts: The first deals with feminist theory and its relation to some other major theories: Darwinism, Freudianism, Marxism, Existentialism. The second part focuses on feminist "politics": liberal, radical, socialist and separatist. The third part poses questions about sexual inequality from a number of different perspectives. Special attention is paid to how one's race, class and gender affects her or his understanding of sexual inequality. The fourth part of the course discusses feminists' attempt to tackle the puzzles of power by taking up questions of language and meaning.

This year the course will focus on questions such as the following: how large a role does gender, as compared to race and class, play in human oppression; to what extent are the roots of sexual inequality economic, social, psychological, biological or ontological; is there an inherent connection between sexuality and violence; where should the lines between public and private be drawn; are traditional ideas of
Women's Studies, World Literature

Masculinity/femininity inherently pernicious; how positive or negative is motherhood for women; do women speak a different language than men; are the various schools of feminist politics compatible?

Although texts will vary from year to year, readings will usually include selections from Darwin, Marx, Freud, Mill and Sartre and some of the following texts: S. de Beauvoir, The Second Sex; J. Mitchell, Women’s Estate; N. Chodorow, The Reproduction of Mothering; J. Elshtain, Public Man, Private Woman; M. Wittig, H. Cixous, J. Kristeva, L. Irigarary, The New French Feminisms; D. Dinnerstein, The Mermaid and the Minotaur; G. Joseph and J. Lewis, Common Differences; Conflicts in Black and White Feminist Perspectives.

No prerequisites. Required course in the Women’s Studies Program.

Hour

WOST 401 The Senior Seminar

This course provides students concentrating in Women’s Studies an opportunity to discuss a major interdisciplinary topic with faculty and students, to explore methodological approaches to that topic and to engage in individual research. Students are encouraged to pursue research projects related to the discipline of their major and to the seminar topic. Topic for 1985-86: Women and Madness.

The first part of the course will focus on literary, psychoanalytic and historical accounts of women and madness. Readings will include works by and about Freud, with a focus on Dora: An Analysis of a Case of Hysteria and recent reinterpretations of her illness by critics of Freud's handling of the case; Charlotte Perkins Gilman's The Yellow Wallpaper with historical readings on nineteenth century medicine; and Judith Rossner's August. In addition, members of the Women's Studies Committee will provide alternative disciplinary perspectives on the topic. During the second part, students give presentations on their research and critique one another's work.

Students are required to choose their research project by spring registration of their junior year. At this time, as well as when they are taking the seminar, students will confer with two faculty members: the instructor of the course and an advisory sponsor. The advisory sponsor should be a faculty member whose subject area or research interests are relevant to the project.

Prerequisites, Women's Studies 101 and two of three electives. Required course in the Women's Studies Program. Enrollment limited. Permission of the instructor and advisory sponsor required during spring registration of junior year.

Hour

WORLD LITERATURE

Co-ordinator, Professor EDSON M. CHICK

[LTRR 220 The Novel (Same as English 214) (Not offered 1985-86.)

A survey of the great European novels from the first, Cervantes' Don Quixote (1604), to Bulgakov, Master and Margarita (1938). Further readings: Flaubert, Madame Bovary; Goethe, The Sufferings of Young Werther; André Gide, Lafcadio's Adventures; Kafka, The Trial; Kleist, Michael Kohlhaas.

Lectures and discussion. A midterm and a final examination.

No prerequisite. Satisfies one semester of Division I requirement.

Hour

CHICK, PIPER, PISTORIUS, B. KIEFFER, APTER, GOLDSTEIN]

Students will register for this course as World Literature 220 or English 214.

OTHER LITERATURE COURSES IN TRANSLATION

(See respective departmental listings for full description.)

Classics 101, 102 Classical Literature

Classics 104 Greek Mythology
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
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<td>Greek Tragedy</td>
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<td>English 304</td>
<td>Dante</td>
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<td>German 203</td>
<td>German Classics in Translation</td>
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<tr>
<td>German 204</td>
<td>Nietzsche, Bismarck, Fontane, 1870-1889</td>
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<tr>
<td>German 302</td>
<td>Literature of the High Middle Ages</td>
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<tr>
<td>French 205</td>
<td>History and the Novel</td>
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<td>Russian 210</td>
<td>The Russian Literary Intellect</td>
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<td>Russian 301</td>
<td>Russian Classics in Translation</td>
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<td>Russian 302</td>
<td>Soviet Literature in Translation</td>
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<td>Russian 303</td>
<td>Tolstoy in Translation</td>
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<td>Russian 307</td>
<td>Dostoevsky in Translation</td>
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<tr>
<td>Spanish 205</td>
<td>The Latin American Novel in Translation</td>
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</tbody>
</table>
WINTER STUDY PROGRAM

REMINDERS ABOUT WSP REGISTRATION

All upperclassmen who will be on campus during the 1985-86 academic year must complete the registration form for WSP. This will take place sometime in the early part of fall semester. Even though you may take a "99" or continue to work on your senior thesis, essay or project, you must complete the registration form and return it to the Registrar's office.

Even if you plan to take a "99", or the instructor of your first choice accepts you during the registration period, there are many things that can happen between registration and the beginning of Winter Study to upset your first choice, so you must list four choices. You should try to make one of your choices a project with a larger enrollment, not that it will guarantee you a project, but it will increase your chances of getting something.

If you think your time may be restricted in any way (ski meets, interviews, weddings, etc.), clear these restrictions with the instructor before signing up for his project.

Remember, for interdepartmental projects you should sign up for the department you want to appear on your record.

If you are taking a beginning modern language course, you are required to take the WSP Sustaining Program in addition to your regular project. You will be automatically enrolled in this Sustaining Program, so no one should list this as a choice.

If you have any questions about a project, see the instructor before you register.

Complete your registration as early as possible as it is not always possible to find the instructor at the last minute of the registration period.

Finally, all work for WSP must be completed and submitted to the instructor no later than Thursday, January 30. Only the Dean can grant an extension beyond this date.

* * * * *

FRESHMAN SEMINARS

All freshmen are required to take an interdisciplinary seminar from the courses listed below. Choose two from this list of five, putting your first preference on the top line. You will get one of your two choices. Please choose carefully. You will not be able to change this registration later, because of the need to plan adequate staffing for the seminars. Choices for the fall and spring semesters may be changed later in consultation with your adviser but your choices for the January program may not be changed later.

The seminars are designed to meet the following objectives:

1. To introduce freshmen to the ideal of liberal education, that is, to the notion that liberally educated persons have a wide range of intellectual interests. Students will see this ideal exemplified in the inter-disciplinary team leading the seminars.
2. To expose freshmen to the claims and methods of different disciplines as they are brought to bear on common themes. This will have the effect of opening up to you several new fields for further exploration.
3. To get freshmen well-launched into the four-year program by a seminar which offers you a change of pace from a semester of separate departmental courses but nevertheless makes serious demands. We believe this will have a lasting effect on your attitudes towards your studies in subsequent January months.

All the seminars include a minimum of six hours class time and then the writing of two short papers. Insofar as possible, the sections will be limited to an enrollment of 20-25. You will have to pay for any books used in these courses.

Each freshman indicates a first and second choice from—and only from—these Freshman Seminars.

The Freshman Seminars are not open to upperclassmen.
FRSE 001 The Birth of Modernism: Rebellion and Change around 1900

The final decades of the nineteenth century and the early years of the twentieth were characterized by a "collapse of certainties" in religious belief, moral values, and aesthetic standards, as well as in traditional assumptions about the nature of the physical world. The persistent challenging of conventional attitudes and values was vividly manifested in rebellions and novel explorations in literature, the visual arts, music, and science. Technology was a material condition and stimulus for both art and science as it moved from the heroic age of invention to industrial research.

This interdisciplinary seminar will explore some of the movements with which the new "fin de siècle" trends in the arts were associated: Aestheticism (Art for Art's Sake), Decadence, Post-Impressionism, Expressionism, Art Nouveau. They will be compared with a parallel "fin de siècle" feeling in science, so dramatically challenged by revolutionary developments in techniques and thought, including X-rays, radioactivity, quantum physics, relativity, and genetics. We will study characteristic works by some of the more important artists in England, France, and Germany: for example, in literature, Swinburne, Pater, and Oscar Wilde; in the visual arts, Beardsley, Whistler, Gauguin, Toulouse-Lautrec, Matisse, and Munch; in music, Debussy, Ravel, and Richard Strauss. One focal work to be explored will be Salome: the play by Oscar Wilde, illustrations by Aubrey Beardsley, opera version by Richard Strauss.

F. Stocking (English), D. Beaver (History of Science), P. Ennis-Dwyer (Music), D. Menaker (Art History), A. Wheelock (English)

FRSE 002 The Invisible World

Science often investigates objects far too small or too distant to be seen by our unaided vision, while mathematics, pure and applied, often has need to deal with infinitely large or infinitesimally small quantities, or with more than three dimensions in space. This seminar aims to introduce some of the techniques used in science and mathematics to explore this "invisible world", and to discuss the significance of the resulting findings and applications. We will emphasize the nature of scientific discovery, its dependency upon advances in technology and in instrumentation, and especially the thought processes, both individual and communal, that go into establishing new scientific knowledge.

Mathematical topics will include the transfinite arithmetic of Georg Cantor, the "infinitely small" quantities introduced by Newton and Leibniz and revived in the mid-twentieth century, and aspects of four-dimensional space such as the hypercube. We will develop a geological perspective to study events in the remote and invisible past and to understand large-scale crustal processes operating at very slow rates; we will also use physics to characterize the inaccessible interior of our planet. We will discuss the physics of integrated circuit chips and other electronic devices that make the present generation of ultra small and high speed computers possible, and also consider the fundamental physical limits to the continuing miniaturization process. The invisible chemical world will be explored from atoms to macromolecules, including the nature of the atom itself and the atom as the building block of all matter. The approach will present the structure and properties of chemical compounds, and will stress the empirical nature of scientific knowledge. The invisible biological world, founded upon the chemical, is largely a consequence of the association of macromolecules into structures of great complexity in living cells; we will study the properties of these supra-molecular objects and in particular the role of RNA and DNA in the transmission of genetic information.

Laboratory demonstrations will include the transmission electron microscope and other topics related to the lectures. Students will be instructed in the use of word processors and expected to use these aids in writing papers.

O. Beaver (Mathematics), P. Karabinos (Geology), B. Pierce (Physics), A. Skinner (Chemistry), L. Vankin (Biology).

FRSE 003 The Idea of the Hero

Tell me, Muse, of the man of many ways, who was driven far journeys, after he had sacked Troy's sacred
citadel. Many were they whose cities he saw, whose minds he learned of, many the pains he suffered in his spirit on the wide sea, struggling for his own life and the homecoming of his companions.

*The Odyssey*

Andrea (loudly): Unhappy the land that has no heroes! . . .

Galileo: No. Unhappy the land that needs a hero.

Brecht: *Life of Galileo*

“Show me a hero and I will write you a tragedy.”

*The Crack-up*

Homer in 700 B.C., medieval epics, the Elizabethans, the Romantics, and twentieth-century novelists all reflect a universal fascination with the protean and problematic idea of the hero. This seminar will explore heroes and heroism in great works of literature from prehistory to our own era. What qualities characterize heroes, and how do their actions and aspirations reveal the values of an age or a culture? Readings include Homer’s *Odyssey*, *Beowulf*, Marlowe’s *Doctor Faustus*, Goethe’s *Faust*, and Bernanos’ *Diary of a Country Priest*.

E. Chick (German), M. Dietze (Classics), C. Park (English), J. Smith (German), S. Wright (English)

**FRSE 004 Freedom, Authority, Community**

Discussions of the American experience and of contemporary American society almost invariably emphasize the concepts of individual rights and freedom. And yet it is important to remember that individual men and women do not live in complete isolation, but in interdependent societies that offer certain possibilities for fulfillment and require certain contributions in return. This course will examine an enduring concern of Western moral, political, and social philosophy: how to reconcile the freedom of the individual with the authority of the community. Readings will include several classic works of Western literature and philosophy, selections from modern social science (economics and political science), and case studies drawn from the American experience. Our aim throughout will be to develop a more sophisticated and reasoned understanding of what an individual is, how his or her freedom or autonomy is best understood, and how these fit with the claims of authority and the requirements of life in a moral and political community.

R. Krouse (Political Science), G. Jacobsohn (Political Science), J. Limon (English), L. Versenyi (Philosophy), G. Winston (Economics)

**FRSE 005 Public Man, Private Woman?**

This course examines the changing roles of men and women. The focus will be primarily, but not exclusively, upon the breakdown of the traditional “public” (economic and political) role for men and “private” (homemaker) role for women as it has developed in the late nineteenth- and twentieth-century Western world. Topics to be considered include how the traditional public/private dichotomy began, the extent to which men and women today are still socialized to different roles, the reasons for the current challenges to this dichotomy, and the implications of the new definitions of “public” and “private” for the future of the American family system.

Readings will include selections from early critics such as Frederick Engels and John Stuart Mill, “feminist” writers such as Dorothy Dinnerstein and Ann Dworkin, more “conservative” thinkers such as Phyllis Schlafly, and modern novelists such as Doris Lessing. Films such as “Kramer vs. Kramer” which deal with contemporary issues in male-female relations will also be emphasized.

P. Frost (History), G. Newman (German), T. Spear (History), K. Swann (English), P. Tracy (History)
AFRICAN AND MIDDLE EASTERN STUDIES

AMES 012  African Music Performance Seminar (Same as Afro-American Studies 012 and Music 012)
An introduction to the rich variety of Africa's music. Students will learn and perform songs and other music indigenous to and inspired by, West, Central, and Southern Africa. Students will have hands-on practice with mbiras ("Thumb Pianos") and African drums. The class will culminate in a presentation to the college community. Though participation in this performance is required, as many as 3 students may be allowed the option of presenting papers instead. These students will thereby have the opportunity of contributing during the course of the project. A "Pass" grade reflects progress toward familiarity with the music and consistent involvement in class activity and the development of the presentation. There will be a field trip to a performance of contemporary African music in New York.
Instruments will be provided for musicians, and some practice time outside of class hours will be necessary. Class hours will be: 3 hours, twice a week for the first 2 weeks, and possibly 3 hours, 3 times a week for the last 2 weeks. Both are afternoon sessions, and the last 2-week time is tentative.
Prerequisite: none.  Enrollment limited to 15.
Cost to students: Approximately $40 for field trip.

KWEYAD AGYAPON (Instructor)
BURTON (Sponsor)

AMES 031  Senior Thesis
To be taken by candidates for honors by the thesis route in African and Middle Eastern Studies.

AFRO-AMERICAN STUDIES
(The following projects satisfy the Afro-American Studies requirement.)

AAS 011  Blacks and the Electronic Culture
This course will treat black culture developed in the age of discs, tapes and computers. Popular music, blues, rock 'n roll and R&B will be studied along with films, T.V. and tapes to ascertain black cultural values and practices in the space age. Critical analysis will be made of such television shows as Good Times and The Jeffersons as well as 60's films, Shaft and Superfly. Message singers such as Stevie Wonder, Marvin Gaye and Curtis Mayfield will be examined. In this course, consideration will also be given to the African antecedents of black culture and the interrelationship of black literacy and education.
Prerequisites: none. Assignments: readings, a journal and 2 short papers, 3-5 pages each.
Enrollment limited to 35.
Class meets 2 times a week and 2-3 evenings to view films.
Cost to student: Minimal.

ROBERT CHRISMAN (Editor, The Black Scholar, Instructor)
J. REICHERT (Sponsor)

AAS 012  African Music Performance Seminar (Same as African and Middle Eastern Studies 012 and Music 012)  
(See under African and Middle Eastern Studies for full description.)

AAS 030  Senior Project
To be taken by candidates for honors in Afro-American Studies.
AMERICAN STUDIES

AMST 030 Senior Honors Project
To be taken by all students registered for American Studies 491 or 492.

In addition, the following projects may be of special interest to American Studies majors and prospective majors:

AAS 011 Blacks and the Electronic Culture
ART 011 Moore Architecture
ART 016 Behind the Velvet Curtain
BIOL 021 Florida Expedition, 1857: The Williams College Lyceum of Natural History
ECON 012 The Stock Market
ECON 013 Advertising
ECON 014 Luncheon with The Times
ECON 015 Tax Shelters
ENVI 011 Public Interest Law
ENVI 013 Merck Forest
HIST 011 The Historian as Detective
HIST 012 American History through Fiction
HIST 013 American Suburbs
PHIL 010 Emerson and Thoreau: American Philosophers
PSCI 011 Frank Capra and Preston Sturges: The American Way of Politics in Films of the 1930's and 1940's
PSYC 011 Race Relations
REL 011 The Life and Thought of Thomas Merton
SOC 011 Propaganda

ANTHROPOLOGY

ANTH 012 The Colonial Experience in Literature
The encounter between people of Africa, Asia and the Middle East and the Europeans who colonized them has been the theme of much powerful fiction by twentieth-century Third World and European writers. In this course we will explore dimensions of the colonial experience and its aftermath through the sensibilities of such African writers as Achebe, Oyono and Emecheta, Middle Eastern writers like Tayeb Salih, and Indian writers like Narayan, as well as English writers such as Doris Lessing and E. M. Forster. We will consider two major themes in their short stories and novels: the effects of colonialism on identity and on social relations within families, amongst members of larger social groups, and between men and women. Although the focus will be on the psychological and social repercussions of the colonial encounter on the colonized, we shall explore the visions and lives of the colonizers, both settlers and officials, to understand this. Course requirements include active class participation, one brief oral presentation, and one 7-10 page paper. Class will meet twice a week.
Prerequisites: none.  Enrollment limited to 25.
Cost to student: approximately $40 for books.

ANTH 031 Senior Thesis
To be taken by students registered for Anthropology 493-494.

ART

ART 010 Video Art Installation
Video and Installation are relative newcomers as art forms go. This course offers an intensive opportunity for group involvement in the making of a video installation. A
large art department space adjacent to a new video studio will be given over to the project and students in the course will design and construct an installation and record the process on-camera. The making of the video will give everyone in the course an opportunity for hands-on involvement at both production (shooting) and post-production (editing) stages. Students will be assessed according to the quality of their individual involvement. At the end of the project the completed video installation will be exhibited in the department and a reception will take place.

Prerequisite: None; preference given to Studio and Theatre majors.

Enrollment limited to 12. 11 hours per week in-class studio time plus 16 hours out of class studio time per week.

Cost to student: $50.00 to cover partial cost of installation materials and video tape.

ART 011 Moore Architecture

An intensive investigation of the work of the contemporary American architect Charles Moore, in partial preparation for an exhibition that will open at the Williams College Museum of Art and travel across country. Each student will become an "expert" in some phase of Moore's career, and that expertise will be used in class discussions and in several short essays.

Prerequisite: Art 101.

Enrollment limited to 20; 4 meetings a week.

Cost to student: None.

ART 012 History of Photography

This course is designed to serve as an introduction to both the history and the criticism of photography. The first week will be devoted to a consideration of the recent idea that a "photographic" vision existed before the invention of photography, then to a brief outline of the chemical history of the medium and the effect the limits of photographic materials had on the choice and treatment of subjects. The remainder of the course will be devoted to the contemplation of a wide variety of photographs (in roughly chronological order) and to the attitudes that determined their form. The nature of photographic "objectivity" will be analyzed with some care, as will the notion of the camera as both a limiting and a liberating instrument. Also to be considered are the aesthetic and critical questions raised by the inclusion among the arts of a medium that is in several important respects mechanical in character.

The primary means of instruction will be class discussion and assigned reading. One or two short papers will be assigned.

The instructor, Ralph Lieberman, is an architectural historian and a professional photographer.

Prerequisites: None. Enrollment limited to 20; meetings 3 or 4 days a week.

Cost to student: None.

RALPH LIEBERMAN (Instructor)  
E. J. JOHNSON (Sponsor)

ART 013 Getting Away From It All

This course will examine the significance of artists' fascination with resorts, vacation spots and exotic travel in the Impressionist, Post-Impressionist and Early Modern periods (1860-1930). Special emphasis will be on American art and the American traveler in the U.S. and abroad.

A passing grade will be based on class participation and successful completion of a research project which will be presented orally and in the written form of a 7-10 page paper.

The instructor, Nancy Mathews, is an historian of American Art and a Prendergast Fellow at the Williams College Museum of Art.

Prerequisites: Art 102 or permission of the instructor.

Enrollment limited to 15. Meets 2 days a week.

Cost to student: None.

NANCY MATHEWS (Instructor)  
E. J. JOHNSON (Sponsor)
ART 014  Collage

A studio course which will explore the relationship of material and found objects to painted and drawn imagery and illusion. Classes will include studio time for in-class assignments, slide lectures, working from the figure, and individual and group critiques.

Each student will keep a workbook for media investigations and on-going written response to assignments and readings. An historical perspective will be encouraged through an examination of collage in different periods and movements including Cubism, German Expressionism, Surrealism and Constructivism, among others. We will look at the collages of Kurt Schwitters, Braque, Picasso, Matisse, Lee Krasner, Motherwell and Romare Bearden, as well as other artists who have done significant work in the medium of collage.

Students will be expected to attend lectures and studios, fulfill out-of-class assignments, complete assigned readings, keep an active workbook and participate in class discussions. A final statement regarding each student's personal investigation will also be required.

The instructor, Robin Goodman, is a painter who has an MFA from Bennington College.

Prerequisites, none. Enrollment limited to 20; meets 4 days a week.

Cost to student: $50.00 towards expenses for materials.

ROBIN GOODMAN (Instructor)

ART 015  Architecture-Sculpture

In the past two decades, there has been a blurring of the traditional boundaries between architecture and sculpture. While architects such as John Hejduk and Walter Pichler have devoted themselves to the realization of personal poetic visions, sculptors such as Siah Armajani and Mary Miss have concerns which are spatial, large in scale, and that increasingly take on the vocabulary of building. This course will be an intense study of this new zone through the examination of existing examples and the exploration of new options. Requirements for a pass include a 10-page paper and a project realized in drawings and a model.

The instructor, Mike Cadwell, is an architect with a degree in architecture from Yale. Currently he is the recipient of a Graham Foundation Fellowship.

Prerequisites, none. Enrollment limited to 12, meetings 4 to 5 days a week.

Cost to student: $50.00 towards cost of materials.

MIKE CADWELL (Instructor)

ART 016  Behind the Velvet Curtain

A study of art dealing as a professional career. The course will meet in Williamstown to study the history of collecting and art dealing and then move to New York for a series of visits to dealers and collectors. The issues that will be considered include the types of expertise necessary for an art dealer, the categories of dealership, and the creation of an inventory. During the last week the students will select the objects for an exhibition, plan the hanging and write catalogue entries.

The instructor, Norman Hirschl, is the retired founder of Hirschl and Adler Galleries, Inc., in New York, a pre-eminent dealer in American art, and former president of the Art Dealers Association.

Prerequisites, none. Enrollment limited to 15; preference given to art majors.

Cost to student: living expenses for approximately 10-14 days in New York City.

NORMAN HIRSCHL (Instructor)

ART 017  Fire: Wild and Cultural (Same as Environmental Studies 017)

(See under Environmental Studies for full description.)

ART 031  Senior Thesis

To be taken by students registered for Art 493-494.
ART 033  Honors Independent Project
To be taken by candidates for honors other than the thesis route.

ART 051  Winter Study in Italy

ART 052  Independent Research for Final Examination

ASIAN STUDIES

ASST 031  Senior Thesis
To be taken by candidates for honors by the thesis route in Asian Studies.

ASTRONOMY

ASTR 015  Research Participation (Same as Physics 015)
(See under Physics for full description.)

ASTR 021  Halley's Comet
This famous comet, back for the first time since 1910, will be visible to the naked eye only in January and in April 1986. (In February and March, 1986, it will be behind the sun.) The comet will not be readily visible from the continental U.S.; a latitude of +20° has the longest visibility during January. We will therefore observe Halley's Comet from Hawaii, spending one week in Honolulu and most of the time on Maui, where we can take advantage of the superlative skies from both sea level and from the 10,000-foot altitude of the Haleakala Observatory. Orientation will include sessions at the Bishop Museum's Planetarium in Honolulu and discussions by scientists of the Institute for Astronomy of the University of Hawaii. We are also trying to organize a visit to the Hawaii Volcanoes National Park and to the Mauna Kea Observatory at 13,800-foot altitude on the big Island of Hawaii. We shall meet in Honolulu on Tuesday, January 7, and stay in the Hawaiian Islands until January 28.

Prerequisites, none.  Enrollment: 12 students/4 alumni.
Cost to student: pending detailed arrangements: under $2,000. Alumni arrangements would be more, since the student arrangements are based on triple or quad rooms.

ASTR 031  Senior Thesis
To be taken by students registered for Astronomy 493, 494.

BIOLOGY

BIOL 011  Sex and Behavior
This course will involve a detailed examination of similarities and differences in the behavior of males and females. Inter- and intrasexual interactions will be discussed in the context of competition, mating and investment of offspring. The course will begin with an in-depth discussion of evolutionary theory, particularly sexual selection. Readings from a text on sex, evolution and behavior as well as articles from the primary literature will cover a wide variety of species. The course will include an emphasis on human sexuality and behavior. Format will be lectures and discussions. Students will be evaluated on the basis of class participation and two small essay exams. Class meets daily.

Prerequisite, none.  Enrollment limited to 35.
Cost to student: Approximately $25 for text and other readings.

Meikle
BIOL 012  Scanning Electron Microscopy: Applications in Art, Industry and the Sciences

The scanning electron microscope (SEM) can give a highly magnified (up to 200,000 x) topographic image of whole specimens using an electron beam that is swept across the sample in a raster. Many areas of study are possible with the SEM including biology, geology, materials sciences, and art, as well as industry. Using the x-ray detector on the SEM, elemental composition can be determined as well.

This course will include lectures on SEM operation and theory, but will try to allow as much “hands-on” use of the SEM as possible. Small groups of students will select their own projects and investigate them using the SEM, including specimen preparation and micrograph processing. One paper with photos and a short presentation will be required.

Guest lecturers will be included and a short trip to a facility with an extensive electron microscopy set-up. Course meetings will be two days per week with lectures in the morning and scopes work in the afternoons.

Prerequisite, none.  Enrollment limited to 15; seniors will be given preference.

Cost to student: Approximately $40 for text and trip.

NANCY PIATCZYC (Instructor)
GRANT (Sponsor)

BIOL 013  Microbiology

The structure, function, growth, metabolism and pathogenicity of microorganisms, particularly bacteria, will be considered in detail. Basic concepts of practical immunology will be incorporated into the course. In the laboratory, students will study the growth, isolation, identification, characteristic biochemical metabolism, and antibiotic sensitivity of microorganisms. The laboratory experiments will include pure culture technique, staining (gram, spore, acid fast), effect of antibiotics and antiseptics, growth characteristics of bacteria, microbial metabolism, bacterial conjugation, differential media, water and milk testing for bacteria, phage plaque formation, immunodiffusion, and differential blood count. All students will identify unknowns during the laboratory from mixed cultures. Evaluation will be based on 2 exams, laboratory reports, and classroom and laboratory participation.

Prerequisite, introductory course in Biology.  Enrollment limited to 16.

Students will work in pairs in the laboratory. The anticipated (tentative) schedule is three 90-minute classes and 2 laboratory sessions (3-4 hours each) per week.

Cost to student: Textbook will cost $30-$35. Lab manual will be provided.

JOHN FAHEY (Instructor)
ART (Sponsor)

BIOL 014  Extinction

Man is causing the extinction of animals and plants at an unprecedented rate. The purpose of this course is to assess the nature, magnitude and impact of the extinction process. Lecture topics will include the ecological theory and evolutionary role of extinction, man’s prehistoric and historic effects on extinction rates, the biological attributes of vulnerable species, the design of nature preserved, and a world-wide survey of species extinctions, including the effects of habitat destruction on the tropical rain forest. Medical, economic, legal, and ethical implications of man-caused extinctions will be explored.

Meetings will consist of lectures and a series of discussions. Participants will form working groups on components of the extinction problem, then join together to resolve a national and global policy on extinction, which will be summarized in a group report.

Approximately 20 hours per week. Grade based on participation in the discussions and on role in preparation of the policy paper.

Prerequisites, none.  Enrollment limited to 35.

Cost to student: $35 (textbook).

EDWARDS, D. C. SMITH
BIOL 021 Florida Expedition, 1857: The Williams College Lyceum of Natural History (Same as Environmental Studies 021)

From February 19 to April 26, 1857, a hardy band from the Lyceum of Natural History at Williams College explored the Floridian peninsula "... for the purpose of studying the natural history of the country and of making collections." The group, consisting of Professor Chadbourne as leader assisted by Professor Archibald Hopkins, 15 students, and 4 alumni, sailed from New York to Fernandina, Amelia Island, Florida where the party split into two groups, one destined for the Okefenokee Swamps, and the other for Bahia Honda in the Florida keys and the Dry Tortugas 70 miles west of Key West. They returned to Williamstown with a large collection of birds, plants, shells, and seashore specimens. The expedition was funded by the sale of subscriptions to alumni, museums, and private collectors who all shared in the bounty of specimens collected.

The purposes, of this Winter Study course are to retrace the entire route of the 1857 expedition, to study the natural history of the region, to collect specimens of plants and seashore life, and to document the changes that have occurred in the intervening 129 years. We will be relying heavily upon the journals and records kept by the members of the original expedition in this phase of the course. In spite of the recent massive development of Florida, some of the sites we will be visiting are relatively unchanged because of their preservation as state or national parks. Members of the 1986 expedition will assemble on January 5, in Jacksonville, Florida. Our 20 days of travel will be in vans except for the three-day excursion to the Dry Tortugas and the time spent in the Okefenokee Swamp. Overnight accommodations will be either camping or sleeping on boats. We will return to Williamstown as a group in the vans.

In order to provide a background for the expedition, students in this course are required to attend a series of three evening lectures in the late fall of 1985. These lectures will concern: 1) the Lyceum of Natural History and its role in the development of the Williams College curriculum, 2) an introduction to the ecology and natural history of Florida, 3) the logistics of the 1857 and 1986 Floridian Expeditions and the art of keeping a journal. Each participant in the 1986 expedition will keep a journal which will be deposited in the Williamsiana Collection at the end of the course.

Upon our return to Williamstown, we will spend the final week in cataloging the specimens collected, holding a seminar on our observations, and writing articles for the Alumni Review reporting our findings parallel to those published in the Williams Quarterly of June, 1857. If time and interest permit we will also compile a slide/tape program of our expedition.

Prerequisites: Since the group will be skin diving (not scuba) in the Florida Keys and Dry Tortugas, swimming proficiency is mandatory. All potential participants must pass a swimming test prior to acceptance in the course. Attendance at the pre-expedition lectures is also mandatory. The expedition will be camping under a variety of conditions. Participants should have access to their own camping gear including a warm sleeping bag. Enrollment: 15 Students and 4 alumni. (Same as 1857 expedition.)

Cost to students: $825 (Includes land and boat transportation, food, texts, campground fees, admission fees, and motel accommodations on the return trip to Williamstown. The cost of air fare to Jacksonville is excluded, however, van transportation back to Williamstown is included.)

BIOL 022 Australia (Same as Special 022)
(See under Special for full description.)

BIOL 026 Medical Research

Students will have the opportunity to work on research projects at various medical institutes and laboratories. Students should apply to the Biology Department to be considered for the specific positions under the supervision of laboratory research staff. These positions will vary from year to year so that the total number of students involved cannot be stated at this time.
Prerequisite, consent of department. *Enrollment limited by application.* Applications due by October 1.

Cost to student: Undetermined.

**BIOL 031 Senior Thesis**
To be taken by all students registered for Biology 493-494.

**CHEMISTRY**

**CHEM 011 Glass and Glassblowing**

This project is designed to introduce the student to both a theoretical consideration of the glassy state of matter and the practical manipulation of glass. While no previous experience is required, students with patience, good eye-hand coordination and some creative imagination will find the course most rewarding. This project is open to both artistically and scientifically oriented students.

Successful completion of the project requires demonstration of the basic techniques of glassblowing. About an hour per week is devoted to classroom discussion, and four mornings (9:00-12:00) per week are spent glassblowing.

Prerequisite, none. *Enrollment limited to 12.*

Cost to student: none.

**J. Skinner**

**CHEM 012 Atmospheric Chemistry: Our Planet and its Neighbors**

This course examines the current state of our knowledge with regard to the structure, chemistry and evolution of the atmospheres of the earth and neighboring planets. The physical and chemical characteristics of the various layers of the earth’s atmosphere, including the chemistry of the upper atmosphere, will be described. As the course proceeds, we will “come down to earth” with discussions of the major chemical cycles of an unpolluted troposphere and an introduction to the problems of a polluted troposphere such as acid rain and photochemical smog.

Prerequisite: Chemistry 101 or permission of the instructor. The class will meet 3 times a week for lectures and discussions of readings. Requirements include class participation and an oral presentation with an accompanying written paper on the same topic.

*Enrollment limited to 20.*

Cost to student: none.

**J. Skinner**

**CHEM 022 Introduction to Scientific Research**

A project planned to introduce the student to the nature of independent scientific research. An experimental project will be carried out under the supervision of a member of the Department in fields such as physical and inorganic chemistry, spectroscopy and (for advanced students) organic synthesis or biochemistry. All interested students should consult with Mr. Tikkanen. Written report required. Non-science majors are invited to participate.

Prerequisites: Variable, depending upon the project (at least Chemistry 101) and permission of the Department.

*Enrollment limited to 8.* Twenty hours per week of laboratory work.

Cost to student: none.

**Tikkanen, Departmental Members**

**CHEM 031 Senior Research and Thesis**
Experimental research projects under the direction of faculty advisers. Continuation of 493 and to be followed by 494.
CLASSICS

CLAS 011  The Greek Tragic Hero
One of the greatest contributions of the Greeks to subsequent Western culture was its drama. This WSP will examine the development of the figure we commonly term the "Tragic Hero" from the earliest surviving plays of Aeschylus to Euripides. Some of the figures we will examine are Prometheus in Aeschylus' Prometheus Bound, Oedipus in Sophocles' Oedipus Rex, and Orestes in Euripides' play of that name. We will also consider how the genre changed in the fifth century and the ways these developments affected the character of the "Tragic Hero."

Readings in secondary as well as primary source materials. Students will make several short presentations and write an essay on a topic or hero of their choice. The class will meet three times a week. To receive a grade of "pass" students must attend regularly, participate effectively in the class discussions, and prepare satisfactory reports and essays.

Prerequisite, none.  Enrollment limited to 20.

FUQUA

CLAS 031  Senior Thesis
May be taken by seniors registered for Classics 493, 494.

COMPUTER SCIENCE

CSCI 011  5th Generation Computing
In 1982 the Japanese government and industry began a research project known as the fifth-generation computer systems project to further the research and development of the next generation of computers. Similar projects have now begun in the US and Europe to develop fundamentally different architectures and languages which make use of highly parallel architectures and recent advances in artificial intelligence. In this course we will examine the goals of these projects and examine approaches to solving some of the problems involved. Since most of these problems have not yet been solved, our approach will necessarily be to look at research in progress. Careful attention will be given to the new highly parallel architectures being proposed. Laboratories will be used to examine functional and logic programming languages (e.g., Lisp and Prolog) which might be appropriate to these architectures.

Prerequisite: CSCI 236 or CSCI 355.

Enrollment limited to 20. The course will meet two days per week for lectures and discussions and two days per week for laboratories. Students will be expected to attend all lectures and laboratories and to satisfactorily complete assigned programs and a final project or paper.

Cost to student: One required text (c. $20) and two highly recommended language manuals (c. $20 each).

BRUCE, SCRAGG

CSCI 012  Computational Vision
The subject of vision is replete with extremely complex computational issues. This course will attempt to address some of these issues by making a comparative study of various visual problems, how humans have attempted to solve them on machines, and how they are apparently solved by biological organisms. The course will cover some of the machine architectures employed in machine vision systems, as well as covering the basic anatomy and physiology of the visual systems of several animals and of humans. Some of the specific visual tasks to be studied will be binocular depth perception, optic flow analysis, visually guided selection, pattern recognition, and edge and region finding. Students will be evaluated based on a brief written synopsis of readings, oral presentations, and classroom discussion.

Prerequisite: Mathematical and scientific experience equivalent to that of a sophomore major in one of the sciences or mathematics.
**Computer Science, Contract Major, Economics**

**Enrollment limited to 15. We will meet for two hours per day, three days per week. There will be several field trips to area laboratories.**

Cost to student: Copying cost of about $25 and expenses for two or three day trips.

**CSCI 030  Senior Project**
To be taken by candidates for honors in Computer Science other than the thesis route.

**CSCI 031  Senior Thesis**
To be taken by students registered for Computer Science 493-494.

**CONTRACT MAJOR**

**CMAJ 031  Senior Thesis**
To be taken by students registered for Contract Major 493, 494.

**ECONOMICS**

**ECON 010  Accounting**
The project will present the basic principles of accounting and its use in businesses and other organizations. Topics will include accounting systems, preparation and interpretation of financial statements, current issues in accounting (such as adjustment of income and assets to eliminate the effects of inflation, accounting for pension costs and liabilities, and measurement of profit), and the accounting profession and careers in accounting. There will be material on small businesses and individual professional practices (in medicine, law, and the like), as well as large corporations. Case material on real firms and organizations.

The project is a “mini course.” It will present systematically a substantial body of material and will require a substantial commitment of time by the student, including regular attendance and participation in discussion and homework cases and problems.

Prerequisite, none, but some economics will be useful.

**Enrollment limited to 35. Preference to seniors and those with at least one economics course. Class will meet for 2 hours, 3 or 4 times a week.**

Cost to student: Approximately $25.

Instructor: Leo McMenimen, who is a CPA as well as a Ph.D. in business administration, is a professor in the Department of Accounting, Law and Taxation at the School of Business, Montclair State College. He has offered a WSP in the Stock Market for the past 5 years and has taught Accounting during the past 6 Winter Study Periods.

**ECON 012  The Stock Market**
Elementary description and analysis of the stock market. Emphasis on the roles of the market in our economy, including evaluation of business firms and the success of particular capital investments, allocating savings to different types of investment, and providing liquid and marketable financial investments for individual savers.

Description of mechanics of trading on the various exchanges and other markets, stock market indexes or “averages” (Dow-Jones, S & P 500, etc.), how to read the financial news, historical rates of return on stocks and portfolios, role of mutual funds, beta coefficients, and “random walk” theory. Brief introduction to financial reports of firms and analysis of financial ratios.

Each student will participate in discussions, do some homework assignments, follow a hypothetical portfolio during January, and write a 10-page report analyzing the wisdom or folly of having chosen the portfolio.

Not intended for students who already know much about the stock market; students who have had Economics 317 or 384 not admitted. A two-day field trip to New York City.
ECON 013 Advertising

Companies spend over $100 billion each year on advertising. Why do they do it? What makes advertising effective? Who regulates advertising and why? What is a deceptive advertisement? Is there too much advertising? Too little?

Students will ponder these and other questions as they create advertisements of their own.

Course requirements: Class participation and development of a print or video advertisement for the product of your choice (the advertisement would have to be one that would satisfy both the government and industry-determined restrictions on advertising content) plus a medium-length paper.

Prerequisites: Preference will be given to students who have taken Economics 101 but who have not taken Economics 208.

Enrollment limited to 25 students. This class will meet an average of 4 and a half hours a week, with somewhat fewer meetings in the middle of the course and more at the end.

Cost to student: No more than $50.

ECON 014 Luncheon with The Times

For most people, economics is what appears in The Wall Street Journal and the business section of The New York Times. (Actually, for most people, economics is Fred Brady and a few graphics toward the end of Dan Rather's news, but let's let that pass.) The goal of this WSP is to evaluate the analytical content of the economic coverage of the nation's most respected daily newspapers. We will meet three times a week over lunch to work our way through individual articles and more generally to discuss the choices editors make in covering the economy and its components. (Where appropriate some background reading will be assigned.) What issues are worth an editorial or accepting an Op-Ed piece? Do editors and reporters use models to bring order to economic events? To what extent do such models resemble those presented in Economics 101? To what extent should they?

Students will lead discussions of specific articles and write a short paper comparing the Journal's and Times' approach to a specific issue and write one Op-Ed for potential submission to either newspaper. A Pass will require a thoughtful approach to the paper, Op-Eds and discussions.

Prerequisite: Economics 101 (preference to students who have not had Economics 251 or 252). Enrollment limited to 15. Three 75-minute classes per week will be held over lunch.

Cost to student: Less than $20.
The study will conclude with a discussion of Senator Bill Bradley's book, "The Fair Tax". The book includes chapters on the constitutional background to the tax, the modern political milieu, tax shelters and their abuse and a proposal to radically simplify the tax system while making it more equitable.

The thrust of the study will be to present as much information as possible on the current tax structure. Students are strongly urged to skim through the IRS's publications and find monstrosities on their own.

While there is no guarantee that students who take this course will be able to do their own taxes, it is hoped that they will learn enough to understand and participate in the coming debate on the Flat Tax.

Each student will write an analysis or illustration of a tax shelter of his/her choosing. Prerequisite, none. Enrollment limited to 25. Class will meet for 1 1/2 hours 3 times a week.

Cost to student: Approximately $25.

Srinagesh

ECON 016 Bargaining and Negotiation

Bargaining and negotiation pervade social life, all the way from the haggling involved in buying a used car, to the global contest for advantage among nations. To what degree are skilled negotiators able to shape the terms of a bargain in their favor? What kinds of skills make for a more effective negotiator? This WSP will explore some theories about where negotiating skills can make a difference; it will examine techniques that make for more effective bargaining; and it will apply these theories and techniques to the negotiation of the investment terms for a large project. The investment project will be a natural resource development in a low income country: the investor will be a multinational company. Students will also have to develop an understanding of some techniques of economic and financial analysis of investments, and the role that technical expertise plays in reaching satisfactory bargaining results.

Time will be spent approximately as follows: 30% in reading and seminars on bargaining and negotiating theory and technique; 20% reading and seminars on how to analyze a project; 30% actual analysis and negotiating by members of the class (divided into teams representing the parties) on the terms under which a given project will be developed; 20% ex post analysis of "The Deal" and its benefits to all parties. The latter will include analysis in light of the circumstances under which the project actually was implemented. Each student will attend seminars, play a role on one of the negotiating teams, and write two very brief papers on the results; one on completion of negotiations and one after the "facts" of the actual implementation become known. Prerequisite, Economics 101. Enrollment limited to 35. Cost to student: No more than $30.

Levy

ECON 017 Central America

This project will consider the interactions of economic and political factors involved in current conflicts in Central America. It will require some specific reading and preparation of a paper, but will be conducted mainly as a group discussion in which each person is expected to participate. We will do some reading in the history of the area, try to identify and explain differences among conditions in the individual countries, and try to sort out some of the mixture of economic and political concerns which have generated such violent conflicts. The tormented relationships between the United States and the region will be considered both in terms of the region itself and in terms of US interests and objectives. We will start with a series of scheduled group meetings, switch to a middle period of your own research and writing, and then have a series of group meetings to discuss the ideas expressed in the papers. Prerequisite: Economics 101. Enrollment limited to 15. Cost to student: Texts and xeroxed articles.
ECON 031  Honors Thesis
To be taken by students registered for Economics 493-494.

ECON 033  Honors Project
The “Specialization Route” to the degree with Honors in Economics requires that each candidate take an Honors Winter Study Project in January of the senior year. Candidates will be admitted to the Honors Winter Study Project on the basis of a detailed proposal. Information on the procedures will be mailed to senior majors in economics early in the fall.

Seniors who wish to apply for admission to the Honors WSP and thereby to the Honors Program should register for this WSP as their first choice. Decisions on admission to the Honors WSP will be made in the fall.

Class will meet as a group occasionally and individually with the instructor 2 or 3 times weekly.
Prerequisite, admission by the Department  Enrollment limited to those approved by Department.
Cost to student: Cost will vary depending on the nature of the project.

ENGLISH

ENGL 011  The Bible
Wide and selective reading in the Biblical narratives, laws, prophecies, hymns, and sayings—for students who wish to gain some overall familiarity with the writings regarded as holy scriptures in Judaism and Christianity, with particular focus on portions that have influenced European and American literatures. Consideration will be given to the perspective of modern historical study and to problems of authorship and translation.

Speaking of having to read the complete Bible when he was growing up, the novelist John Gardner said, “Reading the Bible straight through is at least 70 percent discipline, like learning Latin. But the good parts are, of course, simply amazing. God is an extremely uneven writer, but when he’s good, nobody can touch him.” We will try to concentrate on “the good parts” and to underscore the many kinds of interest that the Bible stimulates.

Classes will usually meet three times a week for two hours. Attendance is required. There will be a few extra sessions, one of them to examine rare Biblical materials in the Chapin Library. Two short papers and possibly a factual quiz.
Prerequisite, none.  Enrollment limited to 25. Classes will meet three times a week for two hours.
Cost to student: Textbook only—The New Oxford Annotated Bible With the Apocrypha (under $25).

ARTHUR CARR (Professor Emeritus of English, Instructor)
BEREK (Sponsor)

ENGL 012  Essay Writing
This course assumes that the best way to learn how to become a better writer is by writing every day, constantly experimenting with different prose styles. Class members will therefore perform an exercise in prose composition for each of the four class meetings per week, each exercise designed to increase the writer's versatility.
Prerequisite, none.  Enrollment limited to 15. Four class meetings a week.
Cost to student: none.

FRED STOCKING (Professor Emeritus of English, Instructor)
BEREK (Sponsor)

ENGL 013  The Craft of Journalism
A practical course on how journalists work. Each student will cover five assignments with the results to be analyzed in class and in one individual conference with the
WSP, English

instructor. A variety of journalism styles (hard news, feature, criticism, sports) will be tried. The accent will be on writing for print but with some chance to write for broadcast. Readings and class discussions will address the issues of accuracy, ethics, and the effects of competition, but the aim of the course is to appreciate the difficulty of producing on deadline an accurate report of fixed length.
Prerequisite, none, but if course is over-enrolled, a writing sample will be asked for. Enrollment limited to 15. Three two-hour class meetings a week plus one individual conference.
Cost to student: Less than $25.

JAMES G. KOLESR (Williams College Director of Public Information and former overseas editor and correspondent for UPI Radio, Instructor)
BEREK (Sponsor)

ENGL 014  Bad Poetry

Most poems are bad. Yet formal education provides us with few examples, and prefers, not surprisingly, to promote the good and great over the mediocre and trivial. However, instructive it is to admire masterpieces, much can be learned by looking closely at—and arguing intelligently about—works that are imperfect, seriously flawed, even desperately unsuccessful. Much of this course will consist of such argument, and many of the poems discussed will be recently published and therefore critically untested. Our aim will be to discover some of the properties of a good poem by describing accurately the failures of a poor one. In this endeavor we will have to challenge and sharpen what we take to be our own values, judgments and preferences. As a prelude to these discussions, we will spend some time looking at a few poems by major writers about which critics have radically disagreed, examining both the poems and the critical assertions. We will also devote a class to exploring how poems are revised, reading preliminary notes and drafts that illuminate the way a mediocre beginning can be transformed into something beautiful (or, sometimes, how promising material can be ruined).

Classes will meet for two hours roughly three days a week. Requirements for a pass: one critical paper, several short exercises, and regular participation in class presentations and discussions.
Prerequisite, English 101. Enrollment limited to 20. Classes will meet for two hours three days a week.
Cost to student: Books only.

RAAB

ENGL 015  Donne

This course will primarily consist of a close reading of John Donne's poetry and selections from his prose. We will also read some literary criticism in order to ask why Donne has had such a strong and lasting appeal to twentieth-century readers.

Requirements: Attendance at all class meetings; regular contributions to class discussions; successful completion of one paper and one class report.
Prerequisite, English 101. Enrollment limited to 25; three meetings per week.
Cost to student: $20.

I. BELL

ENGL 016  The Creation of Blake's Songs

The concern of our study will be the making of one of the great works of English poetry, William Blake's Songs of Innocence and Songs of Experience. Using facsimiles and transcripts of Blake's manuscripts we will establish the evolution of some of his most famous poems, from their beginnings to fair copy. His process of 'Illuminated Printing' will then be investigated. We will learn how he relief etched his text and design on copper for printing, and then hand colored each 'print' before stitching them into wrappers for sale as Songs of Innocence (1789) and Songs of Innocence and Experience (1794).

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Each student will select a poem (or poems) and follow it through these stages, learning about Blake's life in London at the time, and the writers and artists who influenced him in the creation of the Songs: in essence, discovering and tracing the processes of his creative imagination. At one or more points during our study we will travel to Boston, New Haven and/or New York in order to see original copies of these extraordinary poems. If possible, we will spend some time in an intaglio print-making studio.

There will be at least two seminars per week at which attendance is required, plus individual conferences at least twice during the term. Assessment will be based upon class participation, one 'progress report' to the class, and one long essay (1500-2500 words) based upon your research.

Prerequisites, Study above 101 level in either English Literature or Art, or permission of the instructor. Enrollment limited to 12.


ENGL 017 Political Drama

"Political drama" can take two forms; there is the venerable sort we find in books and theaters, and the gripping sort that makes the news. This class aims to lessen that boundary between literature and public event by looking at a number of plays from the Renaissance to the contemporary theater which define themselves in terms of their social contexts, and whose power to fascinate and sway has political aims or consequences. We will discuss plays ranging from Shakespeare's Richard II, a drama Queen Elizabeth found subversive, to Caryl Churchill's recent Softcopts, which explores issues of policing and surveillance, as well as a variety of essays by figures such as Brecht and Artaud who imagined radically transformative possibilities for the theater. We will look at plays which represent political events, but we will also extend the idea of political drama by exploring the way politics informs notions of character and identity in a play, and the questions of power raised by the shifting relation between the audience and the spectacle itself.

Requirements: participation in class discussions, completion of reading assignments, two short (5 page) papers, fervor, subtlety.

Prerequisite, English/Theater 101. Enrollment limited to 20 students. Three meetings each week.

Cost to student: Books only.

ENGL 018 Dream

After a brief, seminar consideration of conventional attitudes toward and limitations of dream in literature, we will settle down to a discussion of the real thing in passages from James Joyce's Finnegans Wake.

Requirements: Regular attendance and a critical journal of meanderings in the Wake, in addition to the opening week's presentation.

Prerequisite, one 300-level course in English. Enrollment limited to 15. The seminar will meet four times a week for student presentations on the literature of dream during the first week and for subsequent discussion of Finnegans Wake.

Cost to student: books only.

ENGL 019 The Films of Michelangelo Antonioni

When L'Avventura was shown at Cannes in 1960, the audience hissed, booed, and stamped its feet. The audience was so bored, it is reported, that the majority left before the screening was over. Fellini's La Dolce Vita, also a film about "the sweet life" of Italy's wealthy upper classes, won the palme d'or, while L'Avventura was given a "special award" for Antonioni's development of "a new cinematic language." Within a year,
Antonioni had won a small but devoted following. Dwight MacDonald told readers of *Esquire*, "Everywhere I go people begin talking about one film—Antonioni's *L'Avventura*." A kind of Antonioni underground is forming, analogous to the early devotees of Joyce and Eliot. MacDonald hailed Antonioni as the first true modernist in film narrative. We will study Antonioni's most productive years as a film maker, from 1960 to 1974, exploring his roots in Italian neo-Realism, his invention of a new cinematic language, and what appeared during those years as his *avant-garde* experiment with film narrative. Films studied will include *L'Avventura, La Notte, Eclipse, Red Desert, Blow-Up, Zabriskie Point, and The Passenger*.

Classes will meet twice each week of Winter Study following screenings of Antonioni's films the previous evening. Each class meeting will be two hours: one hour will be devoted to a lecture on the film being studied; the second hour will be devoted to discussion of a particular sequence of the film. Student work will be evaluated on the basis of four 2-3 page analyses of particular sequences from Antonioni's films.

Prerequisite, English 101. *Enrollment limited to 30.* Classes will meet twice each week of Winter Study following screenings of Antonioni's films the previous evening. Each class will be 2 hours.

Cost to student: none.

**ENGL 030 Senior Project**
To be taken by English honors candidates other than the thesis route.

**ENGL 031 Senior Thesis**
Required during Winter Study of all seniors admitted to candidacy for honors via the thesis route.

**ENVIRONMENTAL STUDIES**

**ENVI 011 Public Interest Law**
What is the public interest? How does it get defined by our legal system? Who represents the public's legal rights? This Winter Study project will address these questions and provide students the opportunity to participate in a mock legal proceeding alongside practicing lawyers and technical experts. The course is to be taught by Steve Latham '71, who with his law firm has been legal counsel to citizen's groups on Long Island who have successfully challenged the evacuation plan for the Shorham nuclear power plant, the construction of a proposed incinerator, numerous development projects, and protected underground water supplies from contamination by a toxic waste landfill project.

Following an introduction to several environmental issues, and an explanation of their legal and economic dimensions, the special problems associated with representing the public will be addressed. (Guest speakers will include several lawyers and technical experts who have worked on cases of national prominence.) It is hoped that students having a general interest in the environment or law, those who have a special interest in government or law as a career, as well as science majors with a technical interest in the issues themselves will sign up for this course. While no final paper is required, students will be expected to submit written briefs, testimony, and legal opinions as the hearing process develops.

Typically the group will meet three to four times per week with more meetings in the first and last weeks and fewer meetings while cases are being prepared.

Prerequisite, none. *Enrollment limited to 25 students.*
Cost to student: Approximately $15.00.

Steven Latham '71 (Instructor)
Moomaw (Sponsor)
ENVI 013  Merck Forest

This course is a four week experience combining living, learning and working in the winter environment. The course will utilize the Merck Forest and its 2700 acres of mountain terrain located in Rupert, Vermont.

Participants live in a small rustic lodge located two miles in from the last plowed road. Supplies are brought in on skis, snowshoes, or using a sled and team of draft horses. The lodge contains a kitchen, bunk rooms, staff bedrooms, and a comfortable eating and living room. An outside privy is located 100 yards downhill. Participants are responsible for preparing meals and in performing a variety of other chores necessary to comfortable group living.

The focus of the course is on winter living, and how plants, animals and people survive. Participants learn to identify trees, interpret animal tracks and signs, “read” the weather, and develop survival skills of their own. They learn how to read maps, use compasses, get around on skis and snowshoes, and sleep out in winter tents and snow shelters. Resource people are invited to give talks and assist with field studies in such areas as forestry, small scale farming, wildlife management, photography, spinning and weaving, making snowshoes, and winter survival. Participants learn most all aspects of fuelwood forestry, from managing a woodlot, to using woodworking tools and draft horses for bringing in the firewood. There is some required reading, and participants must undertake an individual project and make a final report before the end of the course.

Participants should be prepared for a physically active outdoor experience.
Prerequisite, none.  

Enrollment limited to 15 students.
Cost to student: $350.00—includes food and lodging.

DUNCAN A. CAMPBELL (Instructor)
MOOMAW (Sponsor)

ENVI 014  Modern Research in Botany

To preserve the biological quality of the environment we need to be able to describe the species of animals and plants present. Many methods, some old and some contemporary are used to do this. All of them are imprecise, and most of them are dependent on the skill and assumptions of the person using them. Anyone interested in environmental biology ought to know something of the basic methods used to enumerate species, and of the limitations and inaccuracies inherent in these methods.

This is a course in the laboratory and museum methods used in classical botany. We will be studying several fairly involved groups of plants, and will attempt to decide without reference to previous botanical work, how many species are present and what their New England geography is. We will then compare our results to the treatments in the botanical literature, and try to understand the differences. The overall purpose will be to see how technique, methodological bias, and individual judgment affect the basic data upon which much environmental biology depends.

The course will involve about 25 hours of laboratory work per week and about 5 hours reading. Two thirds of it will take place at Williams; the remaining third will involve work at the Williams College Herbarium and botanical museums elsewhere in the northeast. Previous experience in biology will be helpful but is not a prerequisite.

Lectures and readings will deal with different concepts of plant species, factors controlling the number and abundance of plant species, and elementary biostatistics.

Laboratory work will involve light and scanning electron microscopy, quantitative studies of variation, and possibly anatomical studies with the scanning electron microscope. A microcomputer will be used for statistical and graphical analysis of the quantitative data. Students will develop a research project in collaboration with the instructor, and will be evaluated on the quality of their laboratory work and final report.
Prerequisite, none.  

Enrollment limited to 10 students.
Cost to student: $30.00

JERRY JENKINS (Instructor)
MOOMAW (Sponsor)
ENVI 017  Fire: Wild and Cultural (Same as Art 017)

A broad inquiry into the role of fire, as an agent of environmental alteration through acts of nature and of man, within a predominantly North American context. The central questions this seminar will be pondering are: to what extent has man actually come to control fire, and with what effects? What does environmental control in fact mean? Topics to include: lightning fire and fire regimes; broadcast fire as employed by Indians through much of the continent; agricultural burning for pasturage and for shifting agriculture; fire as a companion, in the presence of a hearth; fire as an early mode of urban renewal; incendiary tactics, especially in the Civil War and two World Wars; pyrophilia and pyrophobia; the evolution of building codes and insurance regulations, of fire equipment, of federal land management policies, and of contemporary arson. Daily emphasis will be given to the iconography of fire and to its visual or spatial depiction, as a deliberate or indeliberate design in the landscape. Extensive readings in Homer Aschmann, Gaston Bachelard, Joshua Gregory, Walter Hough, Stephen Pyne, Emily Russell, Ashley Schiff, Tall Timber Ecological conferences, Peter Viemeister, et al. Field study trips to Factory Mutual Insurance Company, Worcester; Firematic Museum of the Firemen’s Home, Hudson, NY; to offices of New York State fire marshall; to selected skyscrapers; to local fire departments and fire sites. Visiting scholars to include Ross Cheit ’77, School of Public Policy, University of California, Berkeley, an authority on the Underwriters’ Laboratory and other self-regulatory bodies within the industrial sector, and Joe McBride, Department of Forestry, also at Berkeley, an authority on wildfire.

A pass will be determined by active participation in all class events as well as weekly written and oral reports on topics under discussion or suggested by individual class members. Prerequisite, none. Enrollment limited to 12. Students selecting this course as their first choice are asked to write in advance why they are interested in it and what they might bring to it. Selection will be based on achieving a diversity of majors, classes, talents. Three two-hour class meetings a week; a fourth day each week will be devoted to field trips, sometimes for an entire day. Cost to student: Approximately $50 for some readings and for some travel expenses.

SATERTHWAITE

ENVI 021  Florida Expedition, 1857: The Williams College Lyceum of Natural History (Same as Biology 021)

(See under Biology for full description.)

ENVI 022  Rural India: Gandhi’s Legacy

This Winter Study project will enable participants to see (in the context of an ancient and heavily populated civilization) the interaction between people and the environment. The perspective on this theme will be unique in that the group’s hosts will be Indian rural development workers who are imbued with and trained in the spirit of Gandhi.

The project will focus on the central concerns of the villages of South India including food security, health and sanitation, water, fuel wood and energy, social justice and the preservation of the environment. This last concern will include consideration of the decline in the water table, soil fertility, forest cover and animal and plant diversity.

The month will be divided into three related periods. Our initial stay will be with members of the Gandhigram Institute and the Church of South India near the city of Madurai. The Institute was founded in 1956 as an educational experiment to apply Gandhian principles by integrating academic study and village development. The Church is an outgrowth of the Williams College Haystack Missionary Movement, and is devoted to similar goals. Following initial orientation, we will follow grassroots workers as they attempt to carry out various village projects in this population stressed environment. Participants will have the opportunity to observe rural development in villages based upon a variety of philosophies including traditional Hindu, Gandhian, western religious and western economic ideals. In the final period we will visit some of the historical and cultural places of South India, and spend a weekend in residence at an
WSP, Environmental Studies, Geology, German

Indian Ashram (a religious study and meditation center) in order to gain a deeper understanding of Indian values.

The group will leave New York on December 27 and return on January 27.

Students will be expected to keep a detailed daily journal of their observations and participate in discussions with our several hosts as a means of preparing a ten page evaluation of a particular environmental/development problem within its cultural context, and proposing a solution for it.

The instructors, Samuel and Elizabeth Smith, have lived in India for four years and have led previous group trips to South Asia.

Prerequisite, none. Enrollment limited to 15 students.

Cost to student: Approximately $1,800.

Samuel and Elizabeth Smith (Instructors)
Moomaw (Sponsor)

ENVI 031 Senior Research and Thesis
To be taken by students registered for Environmental Studies 493, 494.

GEOLOGY

GEOL 010 Will the Ice Return?
Twenty thousand years ago Williamstown was buried beneath a mile of ice. Why? What has caused the several ice ages that the earth has experienced? What effects might man's activities have on a future ice age? We’ll address these questions and consider the possibilities of man's delaying (“greenhouse effect”) or hastening (“nuclear winter”) the onslaught of the next continental glaciers. To attempt to grasp what continental glaciations can do, we'll study the effects of ice (and its byproducts) on the local landscape during one or two all-day field trips. Also to be considered are the response of plant and animal life (including humans) to the most recent ice age, and the astronomical and geological theories for the causes of previous glaciations.

Prerequisite, none. Enrollment limited to 15 students in a combined lecture-discussion-group exercise format during 3 group meetings per week. A short paper or oral report on a topic of the student's choice will be one basis for evaluation, along with active participation in all program activities.

Cost to student: About $20.00 for books.

David Desimone (Instructor)
Fox (Sponsor)

GEOL 031 Senior Thesis
To be taken by students registered for Geology 493-494.

GERMAN

GERM S.P. Sustaining Program for German 101-102
Something new and different for students enrolled in German 101-102, as well as others who wish to join them. Practice in the use of German for everyday purposes; creation and performance of short dramatic sketches through group collaboration; games; songs; story-telling; reading. No homework.

Class meets four times a week for 50 minutes. Active participation and regular attendance earn a “pass” grade.

Prerequisite, German 101 or equivalent. Enrollment limited to German 101-102 students.

Cost to student: the price of one paperback text costing six or seven dollars.

Chick

GERM 031 Senior Thesis
To be taken by students registered for German 493-494.
HIST 010 The English Conservative Tradition
A counterpart of the English Liberal/Radical Traditions offered in 1984, this project will begin with Sir Thomas More; then moving through the writings of Richard Hooker, Hobbes, and Clarendon to Burke; and then to the political careers of Peel, Disraeli, and Churchill. Students will give oral reports. Meetings will be held twice weekly. Prerequisite, none. Enrollment limited to 20. Cost to student: no unusual costs.

HIST 011 The Historian as Detective
This course will bring students into close physical and intellectual contact with the papers of notable nineteenth-century Americans: Presidents, literary figures, and leading social reformers. Students will have a rare opportunity to work with original manuscripts of people like Thomas Jefferson, John Quincy Adams, Abraham Lincoln, Theodore Roosevelt, William Cullen Bryant, John Brown, and Dorothea Dix, to cite a few representative examples. All documents are part of the Chapin Library's manuscript holdings, and all work for this Winter Study will be done in Williamstown.

Research into any historical topic requires some knowledge of what historical editors do and frequently calls for editing on the part of the researcher. It is detective work that begins with the simple existence of a document but then turns it over, analyzes it, relates it, evaluates it, and finally draws conclusions. In this course students will learn to transcribe a document accurately and to make sense of it as well.

In the first week daily classes will introduce past and present editorial practices and rationales and allow work on more easily read Presidential letters. In sessions during each of the second and third weeks, additional points of historical editing will be discussed, while work is done on somewhat more challenging letters in the William Cullen Bryant papers and the “reformers files” of the Samuel Gridley Howe papers. Two class sessions will be held at the end of the fourth week in which students will present and discuss an important historical or literary document or letter series each has earlier selected for editing.

Several William faculty have been invited to discuss particular editorial projects they have worked on. Brief selected readings will be done from the writings of noted editors, including Lyman Butterfield, Julian Boyd, and Fredson Bowers. Required text: Literary & Historical Editing, ed. by Vogt and Jones (1981). A medium-length paper is required. Prerequisite, none. Enrollment limited to 10. Cost to student: less than $10.00.

HIST 012 American History through Fiction
A study of works by authors who wrote about the times in which they lived (as distinguished from the “historical novel”). The purpose of the course will be to see what are the benefits and the limitations of learning about American history through reading fiction. The following will be read: Henry Adams, Democracy (politics in the Grant Administration), John Dos Passos, 1919 (World War I and Versailles), Sinclair Lewis, Babbitt (“Homobooiens Americanus”), Sidney Kingsley, “Dead End,” Clifford Odets “Awake and Sing,” and “Waiting for Lefty” (the 1930s), Joseph Heller, Catch 22 (World War II), and Richard Wright, Black Boy (growing up black).

The background and context of each reading will be presented at the class meeting before the one in which it will be the topic of discussion. Classes will meet twice weekly, and there will be a final examination. Prerequisite, none. Enrollment limited to 20. Cost to student: Price of the books.

ROBERT C. L. SCOTT (Professor Emeritus of History, Instructor)

HYDE (Sponsor)
HIST 013 American Suburbs
Suburbs are today an integral part of life in the United States. Most know specific suburban communities well, and many of us grew up in one. But how many of us know the history and development of individual suburbs, or of U.S. suburbs as a group? This course offers an opportunity to explore selectively the general development of suburbs across the United States. As well, students will choose a suburb to research in greater detail, and will make a short oral presentation to the class about this suburb's development. The final sessions of the class will be devoted to an exploration of some current suburban trends and problems within the specific historical context developed in class. A 10-15 page paper is required. The class will meet twice a week.
Prerequisite, none. Enrollment limited to 20.
Cost to student: $25-30.

HIST 030 Senior Project
To be taken by History honors candidates other than the thesis route.

HIST 031 Senior Thesis
To be taken by students registered for History 493-494.

HISTORY OF IDEAS

HIDS 030 Senior Essay
To be taken by students registered for History of Ideas 491, 492.

HIDS 031 Senior Thesis
To be taken by students registered for History of Ideas 493-494.

MATHEMATICAL SCIENCES

MATH 010 What is a Beautiful Proof?
The focus of this course will be the modern notion of proof. We will begin by studying some classical proofs of facts in number theory. Then we will go on into a discussion of proofs as a social process and present an introduction to a contemporary nonstandard school of mathematics: constructive analysis. During the course we will read excerpts from Hardy's *A Mathematician's Apology*, Lakato's *Proofs and Refutations* and Bishop's *Constructive Analysis*. The requirements for a passing grade will be attendance and completion of assigned homework.
Prerequisite, Mathematics 107 or equivalent. Enrollment limited to 15. The class will meet two or three times per week for a total of four hours per week.
Cost to student: Approximately $30.00

MATH 011 Radar and Mathematics
An investigation into the interplay between mathematics and a particular technology. There will be reading assignments in the text, regular problem assignments, and a short report. A passing performance will depend on satisfactory completion of the problems and report. The class will meet three days per week.
Prerequisite, none. Enrollment limited to 35.
Cost to student: Proposed textbook approximately $50 or $15 for photocopied materials.

MATH 030 Senior Project
To be taken by candidates for honors in Mathematics other than by the thesis route.

MATH 031 Senior Thesis
To be taken by students registered for Mathematics 493-494.
MUSIC

MUS 010  English Handbell Choir
A performance Winter Study project. The object will be to form a handbell choir to ring a four-octave set of Schulmerich English handbells. Eleven ringers who read music at least fairly well are required. There will be five rehearsals per week, and an informal public performance or two will be presented to the public at the close of WSP. Participants will make a short arrangement for bells of a melody of their choice, and will hear that arrangement read and perhaps performed by the ensemble.

A “pass” grade will be assigned on the basis of attendance at rehearsals, participation in public performances, and completion of an arrangement for bells. Prerequisite, ability to read music. Enrollment limited to 11. Permission of the instructor is required; preference will be given to those who have never rung handbells before. Rehearsals will be Monday through Friday mornings for about 1½ hours each.
Cost to student: none.

MUS 011  Woodwind Ensemble Performance
This project is for musicians with at least some experience as players of FLUTE, CLARINET, OBOE, BASSOON and HORN. Using a variety of formats, including lecture/demonstrations, master classes, ensemble coaching and joint rehearsals and/or performances, students will be instructed by members of the NORTHEASTERLY WINDS in all facets of woodwind ensemble performance practice. In addition, they will be exposed to some of the major works in the woodwind ensemble repertoire through live concerts and open rehearsals.

Student ensembles as well as student/faculty ensembles will be formed and, at the end of the course, will all perform on a Studio Recital.

To receive a “Pass” for this course, students must attend all scheduled sessions, rehearse daily with their assigned ensembles, practice their parts individually, and participate in whatever public performances are agreed upon.

Classes will meet approximately twice a week at regularly scheduled times. Ensembles will be coached at least twice a week, at times to be agreed upon by all players and coaches.
Prerequisite, some experience as player of FLUTE, CLARINET, OBOE, BASSOON or HORN. Permission of instructor (see Mr. Moore). Enrollment limited to 20 such players.
Cost to student: $25.00 or less.

THE NORTHEASTERLY WINDS (Instructors)
Wendy Stern, flute, Randall Ellis, oboe, Susan Martula, clarinet,
Stephen Walt, bassoon, and David Saunders, horn.
D. Moore (Sponsor)

MUS 012  African Music Performance Seminar (Same as African and Middle Eastern Studies 012 and Afro-American Studies 012)
(See under African and Middle Eastern Studies for full description.)

MUS 014  Electronic Music (Same as Physics 014)
(See under Physics for full description.)

MUS 031  Senior Thesis
To be taken by students registered for Music 493, 494.

PHILOSOPHY

PHIL 010  Emerson and Thoreau: American Philosophers
According to some historians, the professionalization of American philosophy can be dated to the suppression of Emerson (1803-1882) and Thoreau (1817-1862) as amateur
thinkers. This fact alone provokes the thought that what could be called the scholasticism which characterizes some philosophy in America today might be overpowered by a return to these two philosophical renegades. That is the hope of this project: to recover, to inherit the work of Emerson and Thoreau as philosophers. We shall be considering the possibility that these two philosophers are as indispensable to our American culture as Kant is to German, as Descartes is to French, and as Locke is to English culture.

Readings will include Emerson's *Nature*, selections from his *Essays*, and Thoreau's *Walden*.

A passing grade will be determined by participation in discussions and a 7-page paper.

Prerequisite, none. *Enrollment limited to 20.*
Cost to student: texts.

**PHIL 030  Senior Essay**
To be taken by seniors who will be registered for Philosophy 492.

**PHIL 031  Senior Thesis**
To be taken by students registered for Philosophy 493-494.

**PHYSICS**

**PHYS 011  Clocks**
The origin and development of timekeeping from ancient times to the present day. Water clocks, the first mechanical clocks, the role of clocks in the exploration of the oceans and the discovery of the New World, modern atomic clocks and their roles in space exploration and tests of special and general relativity. Opportunities for projects include models of mechanical clocks and the measurement of time intervals with a precision of a millionth of a millionth of a second using our own atomic clocks.

The course is open to anyone and requires no special mathematics or familiarity with physics. We will develop the conceptual tools needed to understand modern timekeeping as we trace the evolution of clocks historically. We will meet two hours a day three times a week for the first two weeks to discuss assigned readings. The requirements for a passing grade will be attendance, participation in discussion, a seven page paper describing a project of some aspect of timekeeping, and a ten minute presentation of the paper to the class.

Prerequisite, none. *Enrollment limited to 25.*
Cost to student: Less than $20.

**PHYS 012  Computers for Science**
A practical guide to using the computer as a tool for solving scientific problems. The first two weeks will be an intensive introduction to programming. No previous experience is required. Students will carry out a variety of small exercises between lectures. Class will meet 4 hours per week. Students should expect to spend approximately 20 self-scheduled hours per week completing required exercises. The last two weeks will survey common applications, graphing functions, fitting equations to data, simulations and numerical solution of differential equations. We will try using a variety of computers and briefly compare different languages. As a final exercise, students will write a program of modest length to solve a scientific problem chosen from their field of interest. A pass will require successful completion of assigned exercises and the final project. Those with extensive computer experience should check with instructor before registering.

Prerequisite, none. *Enrollment limited to 15.*
Cost to student: Approximately $30.00 for books.
PHYS 013  The Function and Maintenance of Your Automobile

The purpose of this course will be to teach a basic understanding of the function of the major components of the modern automobile, with a strong emphasis on teaching you to do basic maintenance on your own automobile and to diagnose various likely malfunctions. We will discuss the basic principles of operation of all internal combustion engines and details of construction of the common types of gasoline engines. There will be detailed discussion and demonstration of all of the major engine components, including the carburetor or fuel-injection systems, the lubrication and cooling system, and the electrical system. Emphasis will be placed on those items which the individual owner can most effectively maintain and repair. There will also be some discussion of the power train for both manual and automatic transmissions, and of the steering, brake, and suspension systems.

The course will meet two hours a day, three days a week (probably Monday, Tuesday and Wednesday mornings) for classroom instruction. In addition, students will meet at the C&L Garage in North Adams two evenings each week for practical demonstrations and hands on activity. Students will be required to attend class regularly, read assigned material from the text, actively participate in work at the garage, and pass a written examination at the end.

Prerequisite, none.  *Enrollment limited to 20. Priority given to seniors chosen by random selection.*

Cost to student: Text, $28.00.

DAN CONNORS (co-owner of C&L Imports in North Adams, Instructor)
Pierce (Sponsor)

PHYS 014  Electronic Music (Same as Music 014)

Recent progress in microelectronics has opened entirely new opportunities for composers and performers of music. Tape and disk recorders, synthesizers, computers and special effects devices make it possible for a musician, working alone, to create an entire polyphonic piece of music containing a variety of instrumental and vocal textures. In this course we shall look briefly at the historical and technical background of this movement, passing as soon as possible to the actual composition of music using modern equipment. Both analog and digital techniques will be available.

The course will meet for three days (Tuesday through Thursday) each week, with mornings devoted to discussion, afternoons and evenings to individual studio work.

Requirements for a passing grade include active and regular participation in both discussion and laboratory aspects of the course. Each student will either write a short paper and make an oral report on some aspect of electronic music, or will prepare a tape which will be presented during the final few days of the course.

Professor Hafner taught physics for many years at the University of Rochester and at Hampshire College, where he was dean of Natural Sciences for a period. He now teaches physics part-time, sells electronic music equipment, and is completing work on a second Ph.D. in Electronic Music at the University of Massachusetts.

Prerequisite, a basic knowledge of the principles of music is advisable, but no prior knowledge of electronics is necessary.

*Enrollment limited to 20 students.*

Cost to student: none.

EVERETT HAFNER (Adjunct Professor of Physics, Hampshire College, Instructor)
Pierce (Sponsor)

PHYS 015  Research Participation (Same as Astronomy 015)

Several members of the department will have student projects available dealing with their own research or that of current senior thesis students. Approximately 35 hours per week of study and actual research participation will be expected from each student. Those interested should consult with members of the department as early as possible in the registration period to determine details of projects then expected to be available.
WSP, Physics, Political Economy, Political Science

Prerequisites, major or prospective-major status in physics or astrophysics, and permission of specific instructor. Enrollment limited to one or two per project.

Cost to student: none.

F. Brown and Members of the Department

PHYS 031 Senior Thesis
To be taken by students registered for Physics 493, 494.

POLITICAL ECONOMY

PECO 031 Honors Thesis
To be taken by students registered for Political Economy 493.

POLITICAL SCIENCE

PSCI 011 Frank Capra and Preston Sturges: The American Way of Politics in Films of the 1930s and 1940s
An examination of the political films of Frank Capra and Preston Sturges, two brilliant American directors active in the '30s and '40s. These two are often contrasted—Capra being painted as the sentimental true believer and Sturges as the acerbic skeptic—but their social comedies may have more in common than is generally realized. This course studies the political visions of Capra and Sturges and how they reflect and deflect the American political culture. Films to be shown, pending availability, include Capra's Mr. Deeds Goes to Town, Mr. Smith Goes to Washington, Meet John Doe and It's a Wonderful Life, and Sturges' The Great McGinty, Hail the Conquering Hero, Sullivan's Travels and Unfaithfully Yours (the original). A passing grade requires faithful attendance of class sessions (including all films), full participation in class discussion, and a 7-page essay. Classes meet three days a week for 1½ hours in addition to film showings.

Prerequisite, none. Enrollment limited to 30.

Cost to student: several books and a packet, totalling around $30.

PSCI 012 Hegel: The Philosophy of Right
An examination of Hegel's major text on social and political theory. Selected readings from Hegel's early writings will situate the work in the context of Hegel's continued effort to reconcile ancient and modern conceptions of politics and state. In addition to familiarizing students with the political thought of this formative thinker, the course is intended to furnish students with the background necessary for substantial work on Marx and twentieth-century social theory.

Prerequisite, previous work in political theory or permission of the instructor. Enrollment limited to 20.

Cost to student: none.

PSCI 013 The Sikh Crisis: The Problem of Integration in a Political Community
This course (1) deals with a conceptual understanding of the dynamics of "integration" in modern political communities and (2) examines the Sikh Crisis in India as a case study. We recognize that the crisis is rooted in Indian history and the modern political process at its national and international levels. Therefore, we will examine the distant past of Indian history, the essential elements of Sikh religion as they developed in the past, as well as the recent developments (of national and international dimensions) that have led to the crisis. The course is designed to enable students to understand similar crisis conditions of other political communities with greater clarity and objectivity. Reading materials will be available in the library. A passing grade requires...
WSP, Political Science, Psychology

faithful attendance of class sessions, full participation in class discussion, and a 10-page paper. Classes will meet three times a week, for two hours each.
Prerequisite, none. Enrollment limited to 30.
Cost to student: none.

Mammen [Instructor]
Jacobsohn [Sponsor]

PSCI 014 The U.N.: Is it worth its salt?
This short course will examine by readings and discussion the theory and evolution of international organization since the 19th century and, in particular, the various institutions of the United Nations system. The constitutional, administrative and financial problems of these organizations will be reviewed in class. The troubled relationship of the U.S. Government with the International Labor Organization, and the U.N. Educational Social and Cultural Organization (UNESCO), and the General Assembly will receive special scrutiny. Students will each choose a single organ or office of the U.N. for their own special investigation and evaluation using books, articles and U.N. documents. These evaluations will be made both orally in class and in written form for the instructor's evaluation. There will be some use of films and a two-or three-day visit to U.N. Headquarters in New York City will be made in the second week, for briefings by U.N. Secretariat personnel and permanent country missions to the U.N.
Prerequisite, none. Enrollment limited to 15 students. Preference to majors. Classroom-discussion pattern.
Cost to student: books—$25; field trip—$35 plus travel incidentals.

Mac Brown

PSCI 030 Senior Essay
To be taken by students registered for Political Science 491 or 492.

PSCI 031 Senior Thesis
To be taken by students registered for Political Science 493-494.

PSCI 032 Individual Project
To be taken by students registered for Political Science 495 or 496.

PSCI 033 Advanced Study in American Politics
To be taken by students registered for Political Science 481-482.

PSYCHOLOGY

PSYC 010 Psychology in the Popular Imagination
This course examines a range of psychological topics which have captured the “popular” imagination, but which generally remain outside of the mainstream of academic psychology. These include parapsychological phenomena (E.S.P., out-of-body experiences); altered states of consciousness (drug experiences, meditation); “personal growth” therapies (Primal Scream, EST), and other topics such as “how-to-influence-people” programs that are being applied to business (especially marketing). The course relates these topics, where possible, to concepts in academic psychology, and seeks to understand their defining characteristics and appeal.
The class will meet intensively during the first week for lecture, demonstrations, and discussion, less frequently during the middle of the course, and every day during the final week for oral presentations of selected papers. Requirements for a pass: consistent class participation, 10-page paper, class presentation.
Prerequisite, curiosity. Enrollment limited to 20.
Cost to student: Two paperbacks, readings, will be less than $20.00.

Heatherington
PSYC 011  Race Relations
A study of the development and modification of racial intolerance in the United States. Emphasized are psychological variables germane to the processes of attitude growth and change. Also considered are practical means by which the incidence and strength of racial tension may be reduced.
Prerequisite, Psychology 101. Enrollment limited to approximately 15. Two weekly seminars. One 15-20 page paper.
Cost to student: none.

PSYC 012  Psychology's Approach to Video Games
The psychological study of the cognitive processes that apply to the acquisition of skills, strategies, and expertise. In the first week, we meet two hours daily to discuss general readings pertaining to problems of attention, memory, and problem solving. In the next 2 weeks, we apply this knowledge to the development of video game skills by conducting individual and group experiments with various computer-based video games. In the last week, we meet daily and discuss the results of our experiments. Each student will submit a written report based on their experiment.
Prerequisite, none. Enrollment limited to 15. Requirements for Pass: class attendance and participation, oral report, written report.
Cost to student: less than $20 for Software.

PSYC 013  Forensic Psychology
This course examines selected aspects of the psychologist's role in the legal and criminal justice settings. The emphasis will be on both the clinical and applied: What functions do psychologists serve in the courtroom? How else do psychologists affect the adversarial process? How does psychological knowledge inform and impede the judicial process? These and related questions will be examined. Significant legal/psychological issues such as the viability of the insanity defense, the reliability of the insanity defense, the reliability of eyewitness testimony, the psychological selection of juries, and the prediction of violent behavior will be addressed. Readings from psychology, law, and literature will provide the cognitive framework for the course. In addition to the readings, students will have the opportunities to observe, and participate, in a clinical forensic evaluation; to sit in on a trial; and to visit the county jail. Personal reactions to these experiences will be explored.
The course will meet twice weekly for approximately 21/2 hours per session. In addition to completing the required readings and attending the various experiential activities, students will be required to complete a project of their own choosing. The project can focus on any of several possible perspectives—psychological, legal, social, ethical, philosophical, literary—on any aspect of the law/psychology interface. It may be presented as a written 12-15 page paper or as an equivalent piece of work in some other form, e.g., a videotape, a slide-tape presentation, etc.
Prerequisites include a course in introductory psychology plus one additional course in one of the related social sciences or humanities, preferably beyond the introductory level. An interest in and commitment to this area of study is essential.
Enrollment limited to 15.
Cost to student: Textbooks and travel to Pittsfield; about $40.00.

B. Stephens

PSYC 014  Principles of Psychotherapy
This course will explore the principles underlying the “talking cure.” The focus will be on psychotherapy as an example of a carefully arranged situation within which a person may change. We will try to understand what these psychotherapeutic arrangements are and how they differ from other social situations one may encounter. Topics covered will include the initiation of therapy, the therapist's empathy, the patient's
transference (including negative and idealizing transferences), the therapist’s countertransference, and principles of personal history investigation and interpretation.

Of particular interest will be the ways in which persons change during psychotherapy and the possible reasons for these changes. Through the steady use of published case histories, every effort will be made to illustrate principles with the details of actual interaction.

Requirements for Pass: readings, class discussion, paper. The paper, ten pages in length, should deal with an issue of concern in the student’s own development and discuss the way a therapist might work the problem.

Prerequisite, open to juniors and seniors. Enrollment limited to 10.

Cost to student: $15-20 for two books.

DR. RICHARD FORD (Instructor)
GOETHALS (Sponsor)

PSYC 025 Teaching Practicum
Students interested in teaching may submit applications for a Winter Study assignment as a teacher’s aide in the local elementary or high schools. Those accepted will work under the supervision of a regular member of the school staff and submit a report on their work at the end of the Winter Study Period. This project involves a four week commitment to full-time affiliation with the school. Interested students should consult with Ms. Cramer, 307 Bronfman. She will assist in arranging placements and monitor students’ progress during the four week period. Criteria for a pass include full-time affiliation with a school, a final report and an evaluation from the supervising teacher. The final report includes a journal kept regularly on the student’s classroom experiences and an 8-10 page paper that reflects on and evaluates these experiences.

Prerequisite, none. Approval of Ms. Cramer required. Enrollment limited to 20.

Cost to student: none.

CRAMER

PSYC 026 Institutional Placement
Students interested in a full-time January placement in a mental health hospital or social service setting may consult the Psychology Department to make appropriate arrangements. Students should first make their own contacts with an institution or agency. They should also arrange to obtain a letter from a sponsor at the institution who will outline and supervise the student’s duties during January. The sponsor must agree to submit an evaluation of the student’s work at the end of the month. The student will submit a journal and a paper summarizing and reflecting upon the experiences outlined in the journal. Requirements for a passing grade are a satisfactory evaluation from the institutional sponsor and submitting a journal and a satisfactory paper.

Prerequisite, none. Enrollment limited to 20.

Cost to student: none.

MCGILL

PSYC 031 Senior Thesis
To be taken by students registered for Psychology 493-494.

RELATIONSHIP

REL 011 The Life and Thought of Thomas Merton
Thomas Merton was a twentieth-century American Trappist monk, author, social activist, and student of oriental religions. This course will examine the evolution of his belief from an early fling with hedonism and communism, through his conversion to Catholicism, monastic vows, a period of eremitism, developing interest in Zen Buddhism and political activism, to his premature death in Bangkok in 1968. The emphasis will be on gaining a personal, not intellectual understanding of the man and his ideas.

Students will read the new biography by Michael Mott, Wisdom of the Desert (which Merton edited), and Zen and the Birds of Appetite, which he wrote. There will also be
in-class reading from his uncompleted *Asian Journal*. Format will be discussion rather than lecture, although there will be some information provided, in lecture form, on the history of monasticism.

In addition to the regular class meetings there may be either a visit to a monastery or a meditation center. This may require an overnight trip. A 7-10 page paper will be required.

Prerequisite, none. *Enrollment limited to 20 students.* Classes will meet three times during the first week, twice each during weeks two and three, and one final meeting at the end of the course. Evaluation will be based on class participation and two five-to ten-page papers.

Cost to student: $30-40 for books plus as much as another $15.00 if the meditation retreat can be arranged.

ROLAND MERULLO (Instructor)
PETERSEN (Sponsor)

REL 012 Stages on Kierkegaard’s Way
Readings in the literary works of Søren Kierkegaard and Walker Percy. Kierkegaard’s understanding of the aesthetic, the ethical and the religious provides the structure on which the contemporary writer Walker Percy builds his novel. In turn, Percy’s novels may be read as “commentaries” on Kierkegaard’s authorship. Our attempts to interpret Kierkegaard’s dominant themes (actuality/possibility, despair, sin, commitment, faith) and Percy’s religious idiom (“angelism/bestialism”, “the orbit of transcendence”) will lead to two broader questions. Why did our authors choose fiction as the medium and the method for the bulk of their works, rather than philosophical and theological forms? Why has literature become a central means of religious expression in the last 150 years? Readings will be drawn from Søren Kierkegaard, *Either/Or* (volumes one and two), *Sickness Unto Death* and Walker Percy, *The Moviegoer*, *The Last Gentleman*, *Love in the Ruins*. A 7-10 page paper will be required.

Prerequisite, none. *Enrollment limited to 20 students.* Classes will meet three times during the first week, twice each during weeks two and three, and one final meeting at the end of the course. Evaluation will be based on class participation and a final 10-15 page paper.

Cost to student: $30-40 for books.

DAVID SCHENCK (Instructor)
PETERSEN (Sponsor)

REL 030 Senior Project
To be taken by Religion honors candidates.

ROMANCE LANGUAGES

RLFR S.P. Sustaining Program for French 101-102
Students registered in French 101-102 are required to attend and pass the sustaining program during the Winter Study Period. There are three meetings per week (MWTH) from 9:00 to 9:50 a.m.

JULIEN, Teaching Assistant (Instructor)

RLFR 011 Molière’s Don Juan
A study of a classical masterpiece in a triple perspective:

1. A *close reading of the text*. The first purpose of the project is to encourage a critical and imaginative reading of this most complex and most enigmatic play by Molière (evoking violent disapproval and suppressed within a month from its first performance); to encourage discussion of different interpretations and, at times, invite the student to evaluate the ideas of specific critics.

2. An *examination of the play against its historical and social context*. The second goal of the course is an examination of the complex connection between literature and society. We will try to discover the inspiration which comes from Molière’s life as a
seventeenth-century Frenchman, his response to or reaction against a whole range of influences of the social and intellectual movements, such as absolutism or libertinage (the free thought) which affected the conscience of his age.

3. A comparative literature aspect. By capturing the imagination of age after age, the Don Juan legend has become one of the great themes in Western literature. In a complementary reading we will make an effort to present the most significant trends in the development of the legend in Spain, Italy, France, Germany and England. The Don Juan legend finds its first complete expression in a morality play by a Spanish monk, Tirso di Molina (1630). Byron and G. B. Shaw (Man and Superman) occupy the first place among English contributors to the theme. The eighteenth-century history of the legend is dominated by Mozart and Da Ponte in their opera, Don Giovanni. But we shall especially investigate the question, to what extent the French authors of the nineteenth and twentieth centuries have followed the pattern established by Molière: Baudelaire, Camus, Montherlant, Anouilh represent the most innovative versions. The Swiss author Max Frisch and his play of 1953 contributed very much to a renaissance of the legend in the contemporary literature. We shall study these authors at least in excerpts or in substantial portions.

Prerequisite, the ability to read French at the level of French 110.

Enrollment limited to 16. The course will be conducted in French and in English in the following way: Two two-hour class meetings each week will be devoted to an informal lecture in French. The third two-hour meeting of the week will be devoted to a discussion conducted in English (although students' participation in French will also be permitted).

Completion of all reading assignments, regular attendance at all class meetings and a brief (6-8 page) paper (written in English or in French) or a final examination (2 hours) are required for a Pass.

Cost to student: about $50 for books.

RLFR 031  Senior Thesis
To be taken by students registered for French 493-494.

RLIT S.P.  Sustaining Program for Italian 101-102
Students registered in Italian 101-102 are required to attend and pass the sustaining program during the Winter Study Period. Three meetings per week.

RLIT 011  Intermediate Italian
The reading and discussion of a representative selection of modern Italian short stories (by Calvino, Moravia, Buzzati, etc.) will be the vehicle for further refinement of the student's spoken Italian. Emphasis will be on vocabulary-building and the achievement of greater accuracy of oral expression through the presentation of definitions, synonyms, antonyms and idiomatic expressions. Special attention will be paid to the art of paraphrase, both oral and written, in accordance with the rules of indirect discourse.

The class will be conducted in Italian, and will meet four times a week (preferably Monday through Thursday, 10-11:30 A.M.). Written summaries of assigned reading material will be regularly required of students, as will a short paper at the end of the course. Individual conferences will also be scheduled.

Prerequisite, Italian 102 or equivalent or permission of instructor.

Enrollment limited to 25.

Cost to student: approximately $20.

RLSP S.P.  Sustaining Program for Spanish 101-102
Students registered in Spanish 101-102 are required to attend and pass the sustaining program during the Winter Study Period. Three meetings per week (MWTH) from 9:00 to 9:50 A.M.
RLSP 010  Catalonia: The Rebirth of a Nation

Opening with a brief overview of the medieval history of Catalonia through such literary works as The Book of the Beasts by Ramon Llull, poetic selections from Ausias March and excerpts from Tirant lo Blanc by Martorell, the course proceeds to discuss the reasons for the so-called Catalan decadence during the period marked by the establishment of the great European states. We will then explore the rebirth of Catalan consciousness in the 19th century within the context of European nationalism, looking specifically at the Renaixença (rebirth), modernisme and Noucentisme (a neologism best understood by analogy with the Italian novecento), as primarily aesthetic periods concurrent with political movements culminating in the creation of Catalan governmental and cultural institutions. The course will end with a discussion of present-day perspectives on self-determination in the light of the Catalan experience and a look at post-Civil War Catalan fiction and essay. Film and visual support will be included.

Requirements for a pass include class participation, an oral presentation, and satisfactory completion of a final paper.

Prerequisite, none.  Enrollment limited to 20 students.  Class will meet during mornings.

Cost to student: $10-20 photo-copied literature.

Newman, Giménez

RLSP 031  Senior Thesis

To be taken by students registered for Spanish 493-494.

RUSSIAN

RUSS S.P.  Sustaining Program for Russian 101-102

Required of all students enrolled in Russian 101-102.  Three meetings per week, 9:00-9:50 A.M.  Practice in speaking and comprehension based on material already covered as well as some new vocabulary and constructions.  Designed to maintain and enhance what was acquired during fall semester using new approaches in a relaxed atmosphere.

No homework.  Regular attendance and active participation required to earn a pass.  Open to all.

Chick

RUSS 021  Tour of Ancient and Modern Russia

A three-week study tour to Moscow, Leningrad, Kiev Vladimir and Suzdal. Includes sight-seeing excursions, visits to historical sites and art museums, meetings with Soviet students, theater performances, and other cultural activities. Exploration of the monuments of Russia's ancient past and Byzantine heritage, its Imperial grandeur, and the realities of its Soviet present.

Orientation sessions will be conducted on the campus in October and December to prepare participants for their experience in the U.S.S.R. Upon return to Williams in January, evaluation meetings will be held, during which participants will be required not merely to compare their impressions, but also to abstract from them and to generalize about their experiences. At the conclusion of these meetings, each participant will submit an essay on some topic related to his/her individual interests. These topics are to be chosen prior to departure. Participants will also be required to keep a formal daily journal of their experiences and impressions. These will be submitted together with the essay.

Prerequisites, Participants will be required to read one selection from Accounts of Contemporary Life and one selection from: General Histories, Arts and Architecture, Literature and Intellectual Life, and Cultural History as secondary source material for essay.  Enrollment limited to 30.  Permission of the instructor required.

Cost to student: approximately $1450.  This covers round-trip air transportation to Moscow, travel within the U.S.S.R., hotels, meals, tours, guides, tickets.

Prednewa
RUSS 031 Senior Thesis
To be taken by students registered for Russian 493-494.

RUSSIAN, SOVIET AND EAST EUROPEAN STUDIES

RSEE 030 Senior Project
To be taken by students registered for Russian, Soviet and East European Studies 491 or 492.

SOCIOLOGY

SOC 010 Know Your Professor
Each student will retrace the path of scholarship taken by a Williams faculty member (or emeritus professor) of his or her choice who is willing to cooperate by making a curriculum vitae available, providing access to important professional papers written or delivered but not available in published form, and agreeing to discuss with the student the factors which the professor believes led him or her along the particular scholarly route taken. The student will read the professor’s works chronologically and conclude the course with a written “biography of scholarship” together with an oral summary of it before other members of the class.

The course will begin with a presentation by the instructor (supplemented by appropriate readings) of the perspectives of the sociologies of knowledge, science, the arts, and higher education. Those perspectives will be “tested” by their usefulness in contributing to the students’ understanding of the particular direction taken by the varying careers of scholarship examined by the class members.

If the scholarship of a particular faculty member is clearly too extensive to be read over the January term, students may seek the permission of the instructor to a) collaborate in the endeavor with another student or b) read representatively from the professor’s work. Faculty who are unavailable to the student for a discussion of their scholarly careers can not qualify as the focus of a student’s work.

Frequent meetings of the entire class during the first and last weeks.
Prerequisite, none. Enrollment limited to 15.
Cost to student: Uncertain, but modest.

SOC 011 Propaganda
A sociological analysis of the phenomenon of mass persuasion in modern society. The course will examine the institutional and technical apparatus of modern propaganda; the role of intellectuals and technicians in shaping and disseminating propaganda; the symbolic content of specific kinds of propaganda—political, commercial, social, and organizational—will be considered with attention paid to propaganda that seeks to overthrow social structures as well as maintain them. The course will proceed through a series of intensive case studies. There will be a particular focus on the propagandists themselves and on the institutional milieux in which they work. Among other examples, we will examine the Committee on Public Information during World War I in the United States; the Nazi Ministry of Propaganda; the propaganda machinery in contemporary revolutionary states; the workings of corporate personnel offices; and public relations agencies in the United States. We will also analyze the language, ideologies, and visual symbols of particular varieties of propaganda.
Prerequisite, none. Enrollment limited to 25. Meetings twice a week. A substantial paper required for passing grade.
Cost to student: About $25 for books.

SOC 030 Independent Project
To be taken by students registered for Sociology 491 or 492.
SOC 031 Senior Thesis
To be taken by students registered for Sociology 493-494.

THEATRE

THEA 011 Theatre Practicum—A Company
The collaborative process of theatre will be explored in practice by the Company. A group of approximately 35 students working collectively as actors, designers, technicians and administrators will produce four to six short productions for a Northern Berkshire tour. Students should be aware that the course is uniquely intensive and will involve a substantial time commitment. Workshops will be held in acting, voice and movement. Company members will be expected to be involved in all performance and technical activities. The Company needs: actors, designers (lighting, sets, costume, sound), technical staff (carpenters, painters, stage lighting electricians), administrative staff (company administrators, company managers, road touring managers), graphic artists, musicians, and dancers. Attendance and committed participation in all activities of the course is required for a pass.
Prerequisite, none, and no experience is necessary. Students must be willing and able to complete the Company Tour which will take place immediately after WSP ends.
Enrollment: maximum 35 company members; class meets 3 mornings a week; rehearsals alternating afternoons and evenings; some weekend work required.
Cost to student: Approximately $35.00 for personal expenses (food, etc.)

KNIGHT, FINGERHUT

THEA 012 Stage Management Practicum
A workshop for students anticipating stage managing any upcoming theatre production on the AMT MainStage or DownStage. The course will assume that the student has no prior stage management experience. Topics to be covered include: communication, blocking notation, rehearsal organization and scheduling, physical operation of the theatres, production organization, organization of Technical and Dress Rehearsals, and running of the production. Students will participate as assistant stage managers on productions that will open and run during Winter Study Period. The instructor will function as production stage manager.
Course requirements include attendance at rehearsals, and participation in the Technical Rehearsals, Dress Rehearsals, and performances of each production. In addition, there will be two class meetings per week. Attendance at all class meetings, required rehearsals, and fulfillment of production assignments in a competent, professional manner, will result in a Pass for the course.
Prerequisites, none per se, but preference will be given to sophomores and juniors anticipating stage management in one of the Department's theatres within the next year. Department majors, or those contemplating majors, will be accepted first.
Enrollment limited to six. The class will meet on Wednesday and Friday mornings from 9:00-11:00. The schedule of rehearsals and performance dates will be determined by the first class meeting.
Cost to student: Text, reproduction of source material; approximately $30.

Catalano

THEA 030 Senior Production
May be taken by students registered for Theatre 491, 492 but not required.

THEA 031 Senior Thesis
May be taken by students registered for Theatre 493, 494 but not required.
SPEC 011  Communications, A Study of Speech Preparation and Speech Delivery


**Assignments:** Students will study speeches and writings for persuasive techniques with particular attention to organization and development of theme as well as imagery and memorable or quotable lines by use of paradox, parallel structure, internal rhyme or alliteration.

Students will also be asked to prepare five-minute addresses on a regular basis. Such mini-addresses will be 'advocacy' or persuasive talks. Other talks such as the 'lecture' type as well as the 'dedicatory remarks' will also be assigned. All of these prepared talks will be evaluated not only for their content but also for their delivery.

**Final Project:** For the final project the student will be asked to draft a five-minute address on a specific topic. He or she will also be asked to devise imagery or illustrations to portray a selected abstract idea.

**Objective:** Although the assigned readings are given to instill in students a feel for the well-crafted line and graphic figure of speech and illustration, primary emphasis will be placed on the development of the student's techniques in preparing and delivering speeches. The conscientious student will emerge from the course a more confident as well as a more persuasive public speaker.

Students will have ample opportunity to practice their own speech skills and to receive constructive evaluations.

James Humes '57 will enumerate the many facets of successful public speaking. A distillation of his autumn course at the Wharton School, "Speech Preparation", includes the following topics: message, research, outline, beginning, ending, style, imagery, humor, statistics, phrase-making, visuals, voice, and gestures. Mr. Humes, a speech writer for three Presidents and dozens of corporate heads, has presented similar seminars for the White House staff, the National Governors Conference, and numerous national corporations.

Prerequisite, none.  *Enrollment limited to 20.*

Cost to student: text.

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SPEC 012  Individuation: Human Life, Human Being

Carl Jung defines individuation as "the process by which a person becomes a psychological 'in-dividual', that is, a separate, indivisible unity or 'whole.'" "Insofar as 'individuality' embraces our innermost, last and incomparable uniqueness, it also implies becoming one's own self." Individuation is, therefore, "'coming to selfhood'; that is, 'self-realization.'"

In this course, individuation will be studied by a careful reading of four novels selected from among the following authors: J.D. Salinger, Georges Bernanos, Hermann Hesse, Evelyn Waugh, John Updike, Alice Walker, D.H. Lawrence, Peter DeVries and Graham Greene.

Students will share responsibility for seminar leadership, and will write two 8-10 page reflection papers on themes of personal interest.
SPEC 013  An Introduction to Techniques in the Neurosciences
This course provides the opportunity to learn laboratory techniques in the behavioral neurosciences. Techniques include animal neurosurgery including electrode implantation, electrophysiology including recording neuronal activity from behaving animals, histology, and behavioral testing methods.

During the first week of the course students will read a series of papers that describe the assumptions of each technique. During the remainder of the course, each student will conduct a project using these techniques.

At the end of the course, each student will submit a summary of the readings and a log indicating their accomplishments in the lab. A pass will be contingent upon satisfactory completion of the laboratory and written parts of the course.
Prerequisite, permission of instructor. Because the particular techniques that each student may learn can be geared to the student's level of expertise and experience, this course is open to advanced as well as beginning students.
Enrollment limited to 10 students. Students should be prepared to spend a minimum of 15 to 20 hours per week in the lab.
Cost to student: none.

SPEC 014  Adventures in Synchronic Linguistics
This course is designed to acquaint the student with basic concepts in phonology, morphology and syntax through "hands on" experience utilizing the techniques of linguistic analysis. Although Modern Russian will be the victim of our intense scrutiny, previous knowledge of Russian is not a prerequisite for the course nor is any previous linguistic study presumed. (For the specialist in Russian language and literature, the course does present the opportunity to gain a solid introduction to the structure of Russian, which would serve as preparation for more advanced work in this area.)

Each meeting will consist of a short lecture of a theoretical nature, introducing the concepts and/or methods necessary for that day's sleuthing. Then we will apply this knowledge to the Russian linguistic material at hand. In each session we will strive to formulate an accurate linguistic description of the particular problem discussed and to become familiar with the concepts and techniques used.

Requirements for a pass include active class participation and a short project (in the form of a written report suitable for oral presentation) in which the principles learned in class will be applied in the analysis of a particular problem in some other language. For Russian majors, the project may concern a problem in Russian not treated in class.
Prerequisite, none.  Enrollment limited to 25.
Cost to student: Price of one introductory linguistic textbook ($10-20).

SPEC 015  Teaching English to Foreigners
This WSP will discuss strategies for the teaching of English as a foreign language. It is designed to help not only those students who may wish to teach English in a foreign country after graduation, but also anyone interested in foreign language acquisition, the cultural problems involved in teaching English to peoples of other cultures, and appropriate methodologies for studying and teaching foreign languages in general. A short paper and a teaching demonstration will be required for a "pass".
Prerequisite, none.  Enrollment limited to 20.
Cost to student: none.
SPEC 016 Beginning Norwegian

This course will include vigorous attention to basic grammatical principles: gender, strong and weak verbs, influence of introductory words, phrases, and clauses in forming structural inversions in main clauses; 100-150 verbs, 400-500 nouns to make the verbs talk, and enough idioms of high frequency use to give one's conversation the suggestion of life beyond the textbook; vocabulary development will proceed from an introductory list of 200 words instantly recognizable from the Norwegian; good use will be made in each class hour of direct conversation, supported by repetition, substitution, and expansion drills built around a nuclear sentence of subject-verb-object; participation will be required in short, original skits written by students, beginning with the second week; some familiarization with Norwegian culture will be offered through singing of folk songs, viewing of slides, and listening to tapes taken from Norwegian radio and television; strong emphasis will be given to the language melody peculiar to Norwegian.

The class will meet four times weekly for two hours; lab, five hours weekly; daily assignments. A "Pass" grade will be determined by: overall performance on daily and weekly quizzes and tests; class participation and attendance, and laboratory performance.

Preference given to those with some foreign language background, or those with Scandinavian connections (family, travel, work).

Prerequisite, none. Enrollment limited to 20.

HENRY D. ROBERTSON (Instructor)
CHICK (Sponsor)

SPEC 018 Emergency Medical Technician Training

The course will cover all techniques currently considered to be the responsibility of an EMT providing emergency care with an ambulance service. This training also is applicable to pre-hospital medical care situations where basic life support and patient care skills are required prior to the arrival of the ambulance.

Students will receive instruction in and be guided through the practical aspects of the following areas: legal aspects of emergency care; relevant anatomy and physiology; assessment of patient vital signs and symptoms; treatment of airway obstruction; respiratory and cardiac arrest with appropriate mechanical aids to breathing and resuscitation; C.P.R.; assessment and treatment of bleeding, shock, soft tissue and musculoskeletal injuries, as well as injuries to the head, spine, chest and abdomen; assessment and treatment of medical and environmental emergencies and emergency childbirth; proper techniques for lifting and transporting the ill or injured patient.

The class will meet three times weekly for six hours, with a break for lunch. In addition to this class time, there will be: 8 hrs. automobile extrication with a local fire department; 8 hrs. water safety instruction; 16 hrs. ambulance observation with Williamstown's Village Ambulance Service; 10 hrs. emergency department observation at North Adams Regional Hospital.

Successful completion of the course will require regular attendance and passing the quizzes and examinations. (The State regulations require perfect attendance with no exceptions.) Final aspects of the course will be given during the first part of February and, while these aspects will not be required for the Winter Study, they are required for the student to be eligible to take the State and National EMT-Basic Certification examinations.

Prerequisite, none. Enrollment limited to 45.

Cost to student: Approximately $250 for the textbook, photocopied materials, and instructional expenses.

DAVID TAUBER, BRUCE HOMestead, certified EMT Paramedics, (Instructors)
J. SKINNER (Sponsor)

SPEC 019 Medical Apprenticeship

A student is assigned to a local physician or dentist to observe closely his or her practice in the office and/or at the North Adams Regional Hospital. It is expected that a student will spend the better part of the day, five days a week, with the physician or a period mutually agreed upon by the student and the physician as being educationally
WSP, Specials

significant. The program has proven to be extremely successful in giving interested students a clear picture of the practice of medicine in a non-urban area. An effort is made to expose the student to medical specialties in addition to that of the assigned physician. A 10-page report written on some aspect of the month's experience is required. Interested students are asked to consult with Mr. Skinner.

Prerequisite, preference is given to juniors, and then sophomores, whose course work has been suggestive of a firm commitment to preparation for medical school. Enrollment limited to 15.

Cost to student: none.

TEACHING ASSOCIATES (Instructors)
Daniel I. Becker, M.D.
Richard B. Clutz, M.D.
Rutledge Currie, M.D.
Robert K. Davis, M.D.
Ronald B. Durning, M.D.
Benjamin Glick, M.D.
Bonnie H. Herr, M.D.
Douglas V. Herr, M.D.
Thomas Joseph, M.D.
Joshua Kleederman, D.M.D.
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SPEC 022  Australia (Same as Biology 022)
This WSP will focus on the ecology and unique animal life of one region of the continent of Australia. We will fly from Los Angeles to Brisbane, Queensland and spend 24 days utilizing campervans to travel throughout much of eastern and central Queensland. We will use the campervans and tents to camp throughout our stay. By driving and making some day-trips on foot we will visit a wide variety of habitats and locations in Queensland. The habitats will include the Great Barrier Reef, sand islands, rain forests, gorges, the Atherton Tableland and the outback. We will also visit up to 12 National Parks, several mining sites and a number of museums. Our primary emphasis throughout will be on the varied and unique mammal and bird fauna of Australia, but some attention will also be given to the botany and geology of the region. We will travel in two campervans, utilizing the extensive and extremely pleasant caravan parks located throughout the country. Students on the trip will be expected to maintain a daily log of their travels and observations. These logs and participation in regular discussions will serve as the basis for a written report to be compiled by each student and to be submitted at the conclusion of the return flight to the U.S. via San Francisco.

Prerequisite, none. Enrollment limited to 13 (students and alumni).

Cost to student: Estimated costs: Airfare (from Los Angeles and return via San Francisco): $1400; campervan rental, fuel, etc., $350; food, $250; incidentals and special trips $350. Total = $2350.

Drickamer

SPEC 023  Study Tour to the People's Republic of China
A three-week study tour to the People's Republic of China. The tour will provide students, families, and friends of Williams College with an opportunity to visit a num-
ber of major Chinese cities, learn about history and culture in traditional and modern China, observe some of the changes taking place in Chinese society today, and encounter Chinese people in various contexts. The tentative itinerary includes Beijing, Xian (Sian), Shanghai, Suzhou, Guilin, Guangzhou and Hong Kong.

Orientation sessions will be conducted on the campus in November and December to prepare participants for their experience in the PRC.

Students will be asked to investigate one Chinese city in advance and to help introduce it to the rest of the tour members; a paper based on observation made during the trip will be required at the end of the Winter Study term.

Prerequisite, none. Enrollment limited to 18 students. Interview with instructor required during fall semester.

Cost to student: Approximately $3,000 (under negotiation). A limited amount of aid will be available to financial aid students.

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Shaela Ann Cahill
Mireya Loreto Calderin
Jeffrey Lunn Calkins
Andrew Judson Canning
Jonathan Field Carpenter
Adam Stuart Carroll, with Honors in History
Bradford Case
Lisa Constance Celona
Maria Anina Cervone
Christopher William Chapman
Andrew Yan Chung
Michael Robert Coakley
Paul Coleman, Jr.
Timothy Brian Conley
John Matthew Conlon
Patrick John Connors
Elizabeth Jane Conradsen
Sarah Jean Catherine Cooper
Anne Elizabeth Cortes, with Honors in Art

†Elected an Associate Member of Sigma Xi
Degrees Conferred

Michael Paul Costantino, with
  *Highest Honors in Music*
Stephanie Irene Creth
Elizabeth Anne Crill
Mary Clare Crogan
Joseph Richard Cronin
Salim Carrim Currimjee
David Robert Curry
Janet Ewing Curry
Robert Sumner Cushman
Andrew Francis Cypiot
John Thomas Dagnello
Eric Thüre Dahlberg
Martin Francis Davey
Elizabeth Ann Dear
Vadisha Makarand Dehejia
John Edward Denaro
Kenneth Joseph Deveaux
Edward Mandell de Windt, Jr.
Richard Dimperio
Peter Joseph Dombrowski
Eileen Regina Donlin
Peter Dennis Doucette
Nura Ahmed Dualeh
Mary Majorie Duffield, with *Honors in Theatre*
James Thomas Dumphy
Katherine Pauline Eckrich
Sunica Ti Edelstein
Frank DeCourcy Edwards, with
  *Honors in Afro-American Studies*
Mark Lawrence Evans
Brenda Marie Favreau
David James Feasey, with *Honors in Art*
Lesley Therese Feltman
Dominic Joseph Ferro
Anne Lindsay Fetter
Jan Otakar Fischer, with *Honors in History of Ideas*
Mary Kathryn Flanagan
Christopher Thomas Fleming
Mace Mackey Foehl
Christopher Michael Foley
William Compton Foraker
Ann Marie Frederickson
Paul Francis Fukui

Alison Marie Fuller
Eileen Marie Gaffney
Lucy Eleanor Gardner
Julia Forrest Geniesse
Michael Ryan Gillis
Anthony Francis Gioffre, with
  *Honors in Political Science*
Mathew Michael Glauninger
Darrin Glymp
Jeffrey Harris Goodell
Frederic Charles Goodwin, IV
Jenine Gordon
David Frederick Gow
Charles Norman Gray, Jr.
Michael Alexander Greeley, with
  *Honors in Chemistry*
Lawrence Brian Greenberg
Virginia Wardwell Greene
Wendy Leigh Greene
John Phinney Gregg
Mary Elizabeth Anne Greiter
Peter Fitzgerald Griffith
Lucy Elizabeth Groh
Sara Rachel Gross
Duncan Andrew Haas, with *Honors in Chemistry*
Sarah Ellen Haberer, with *Honors in Music*
Marzia Habib
James Alfred Hadley, Jr.
Jean Marie Hannigan
Diane Drury Harkins
Sara Gates Harkness
Christopher Baily Harned
Edward Richard Harshberger, with
  *Honors in Chemistry*
Sarah Elizabeth Hart
Kelly Christine Havig
Jeanette Lynn Hazeltin
Hilary Rogers Headrick
Michael William Hennigan
Laura Henriques
Robert Edward Herbstman
Matthew William Hettle
Kathryn Anne Hewitt
Michael David Heyward
Kenneth Bruce Hillman
Degrees Conferred

Suenn Ho, with Honors in Art
Luther Hartwell Lodges, III, with Highest Honors in Environmental Studies
Douglas Robert Hoffer, Jr.
Margaret Carter Holliday
Reginald James Hollinger, with Honors in Russian, Soviet & East European Studies
Sarah Louise Horowitz
David Keating Howe, with Honors in Economics
Jean Elizabeth Howe
Reese William Hughes
John Sterling Hull
Samuel Hamilton Humes
Louise Hurd
Arthur Yale Hutchinson
Daniel Joseph Iacovella
Robert Frederick Iseley, Jr.
Richard Michael Jackson
Matthew Isaac Janger
Lynne Patricia Jaycobs
Edward Faulkner Jeffries, with Honors in Geology
Kevin Peter Jenkins
Andrea Johnson
Arthur Leslie Johnson, Jr.
Timothy Alan Johnson
John Spencer Jones, Jr.
Gregor Addison Kalas
Kai juhani Karrtunnen
Helen Claire Kaulbach
Janeth Julia Keally
Kimberly Potter Kelly
Muhoho David Richard Kenyatta
Michelle Louise Kienholz, with Honors in American Studies
Nina Adams Kimberly
Dawn Annette Kirkpatrick
Robert Benjamin Kirkpatrick
Susan Kearney Knapp
Katherine Cone Knopp
Daniel David Koelliker, with Honors in Biology
Michael James Kolster

Zayong Koo
Nora Kate Krevans
Peter Block Kunin
Todd Ensign Kurth
Jonna Stiles Kurucz
Jonathan Martin Labaree
Kay Lynn Lackey
Jerry Gregory Larrabee, with Highest Honors in Chemistry
Bernard Lau, with honors in Chemistry
Clifton J. Leaf
Jill Marie Leet
Walter George Lehmann
Barbara Elizabeth Lemmen
Susan Arlene Leone
David Nathan Levy
Diane Lewis
†Judith Lynne Lewis, with Honors in Contract Major
William North Lewis, III
Susan Alberta Lippold
William Ganse Little
Janice Carol Lloyd
Philip Nelson Lohre
Thomas Klpenstein Loizeaux
John Jeffry Louis, III
Christina Ann Lundquist
Philip Peter Lusardi
Jennifer Siewu-Tsung Mah
Pamela Mary Maloney
Helen Natalie Mango
Allison Catherine Martin
Gregory Andrew Masters
Jeffrey John May
Steven James Mazzari
Ann Elizabeth McCarthy
Andrew John McElfresh
Timothy Scott McElfresh
Shannon Daniel McKeen
Douglas Erwin McKenney
Sandra McNeill
Caroline Anna McNerney
Paul Gerard Meeks
Julie Beth Meer
Karla Jeanne Miller
†Pamela Joan Mink, with Honors in Psychology

†Elected an Associate Member of Sigma Xi
Degrees Conferred

Peter Biddle Minnium
John Anthony Mitchell, Jr.
Syed Abdul Sabur Moini
Melissa Fenn Montgomery
Christopher Richard Moore
Sean McCrary Moore
Karen Louise Morehead
Elizabeth Morton
John David Moss
Katharine Reynolds Mountcastle
Christopher Paul Mullen
Lauri Sage Munroe
Edward Ellison Murphy
Stephen Sheals Murray, with Honors in French
Dana Cecily Nadel, with Honors in English
Susan Marie Narkewicz
Mary Elizabeth Nealon
Caren Marie Nelson
Mary Graves Olmsted
Benjamin Baruch Olshin
Peter Pericles Orphanos
Elizabeth Paine
Adam Bennett Pass
Thomas Cole Pease
John Francis Xavier Peloso
Leigh Patricia Perkins
Josephine Mary Pesco
Stephen Bruce Petersen
Kimberly Kay Phillips
John Pier, III
Daniel Catlin Pierce
Scott Lawrence Pond
Jeffrey Weightman Potter
Robert John Pozzi, with Honors in Chemistry
Kathryn Prendergast
William Loening Prickett
Maria del Rosario Pujol
Janet Munroe Pynchon
Janet Lynn Raimondo
Jane Ellen Rech
Anne Marie Redfield
Susan Marie Reilly
Kenneth James Rhodes
Andrea Susan Ricci
Rafael Rivas Mallarino
Cheryl Cecile Robinson
James Chapman Roche
Charlotte Lindsay Rockwood
Susan Gail Rosenzweig
Lance Marc Rothstein
Marcy Jo Rubinger
Kurt Thomas Rumsfeld
Brian Dean Rutledge
Edward Francis Ryan, Jr.
Mark Jeffery Sanders
Peter Constantin-William Schell
Mark Gerard Schmitz
Suzanne Elizabeth Schulze
Margaret Ford Schumann
Mary Esther Schwarzer, with Honors in History of Ideas
Melinda Beth Scott
Laura Sue Seligsohn
Nancy Beth Seufert
Thomas George Sharpe
Julia Therese Short
Carol Ann Silva
James Henry Singer, with Honors in Chemistry
Amy Chapman Smith
Emily Bernice Sneath, with Honors in History
Rachel Shanley Stauffer
†Marvyn Earl Steele, with Honors in Biology
Kathleen Therese Steinbauer
Joilyn Mari Sinson, with Honors in Chemistry
Anna Lee Suessbrick, with Honors in Art
Ann Sundberg
Lori Anne Symanski
Sara James Tarses
Margaret Hyde Tennis
Margaret Taylor Thoman
Edward Joseph Thomas
Hilary Ann Thomas
Benjamin Scott Thompson
Edward Ernest Bradbridge
Thompson, with Honors in English

†Elected an Associate Member of Sigma Xi
Degrees Conferred

Paul Francis Toland
Paula Ann Tuffin
Scott Salisbury Tully
Michael Edwin Turnbull
Kamphol Udomritthiruj
Frank Rutledge Uible, III
†Michael Bruce Uretsky, with Honors in Psychology
Susan Lyn Usenia
Chinyere Uwah
Mark David Van Norman
Robert Steven Vitale
Robert Kenneth Vogt, II
Laura Catherine Volpe
Richard Mitsuko Wada
Matthew Scott Waller
Philip Joseph Walsh
Meredith Dana Waring
Ann Dodd Warren
Stephen John Watson
Carol Susan Weeks
David Scott Wehner
Catherine Lee Wick
Thaddeus Philip Wick
Deborah Wickenden
Stephen Charles Willey, with Honors in English
Benjamin Davis Williams, IV
Laura Lamson Williams
Adam Ledyard Wilson
Ross Hamilton Wilson
Mark Joseph Winters
Michael Jorn Winther
Judith Suzanne Wise
Omar Stephen Wohabe
J. David Wolf
Diane Margaret Wonnell
Frank McReynolds Wozencraft, Jr.
Emily Mercer Wright
Javier Arturo Zelaya
Kim Marie Zullo

Bachelor of Arts, Cum Laude

†Thomas Cary Addison

†Elected an Associate Member of Sigma Xi
*Elected to Phi Beta Kappa

Paul Alton Ades
Bruce Rudolph Albelds, with Honors in Economics
Dawn Alice Angney, with Honors in Economics
†*Robert Gordon Ause, Jr., with Honors in Chemistry
Susan Carol Babiec
Jeffrey Douglas Bader
*Josephine Loretta Barton, with Honors in Chemistry
†*Katherine Robbins Bell, with Honors in Astronomy and Physics
*Katherine Anne Berne
John Berton
†Paul Robert Bierman, with Honors in Geology
Benjamin Daniel Blatt
Marguerite Morse Booth
Angela Lee Bottum
Elise Sheila Brown
*Peter Horner Brown
Stephanie Jill Brown
*Donna Gaston Carpenter
David Scott Citrin, with Honors in Physics
John Shepherd Clayton
*Michele Colocci
*Gordon Frank Compton, Jr.
John Foreman Cox, III
Anne Peyton Curlee, with Honors in History
Gillian Townsen Davies
David Frank DeNicolo
Darinda Ann Dewar
Andrew Forster Dickens, with Highest Honors in Chemistry
*Kimberly Rawson Donovan
Bryan David Dorman
Elizabeth Beckham Edwards
*Catharine Anne Elliott, with Honors in English
*Stephen James Farley
†Thomas Paul Feist, with Highest Honors in Chemistry
Karen Susan Fisher
David Kenrick Flynn
Degrees Conferred

Richard August Gallun, Jr.
Leslie Carol Ganyard
†Christopher Hooper Goss, with Honors in Geology
Timothy Eliot Gross
*Polly Moore Gottesman, with Highest Honors in Contract Major
*Michael James Govan, with Highest Honors in Art
*Stephen Charles Haggett
Craig Wilson Hammond
Gustas George Haracopos
Gail Harris, with Honors in History
*John Gerard Hayes
John Thomas Herzog
James Nathaniel Heyman, with Honors in Physics
*Michael Crawford Hobbs
Philip Weston Holmes
Ragnar Horn
Christian Kimberly Howlett, with Honors in Classics
*John Philip Irwin, III
Kristine Ann Karlson, with Honors in Biology
*James Thomas Katter, with Honors in Psychology
Maura Ann Kelley
Brian Joseph Kilcoyne
*Hunsoo Kim
Tracy King
*Holly Kay Kulka
Laura Elizabeth Kurtzman, with Honors in Contract Major
*Kimerer Lewis LaMothe
†Halard Laird Lescinsky, with Highest Honors in Geology
Keith Axel Livers
Anne Linnea Ludvigson
Robert John Lumley
Robert Francis Mancusco
Martin John Marchaterre
David Paul McCabe, with Honors in Philosophy

*William Montgomery McClements, with Honors in History
Ann Ticknor Melvin
†Karen Anne Montzka, with Highest Honors in Biology
Elizabeth Mary Moore
Maria Mori
Michael John Morriss, with Honors in Economics
Robert Edward Munoz
Kelley George Murphy
Katherine Blair Myers
Laura Ann Napolitano, with Honors in Biology
Peter Stuart Nicholas, with Honors in Political Science
Tracy Anne Niederauer
Barbara Joy Nusbaum
Raymond Arthur O’Brien
Colman Woodworth O’Connor
Caroline Elizabeth Parker
Peter Frederick Pollack
Bethany Suzanne Pray
Susan Gayle Reifer, with Honors in English
Daniel John Rodas, with Highest Honors in American Studies
Elaine Allison Rosenfeld
Antonia Isabel Ruiz
Ann Harlin Savage
Franz Peter Schneiderman, with Honors in Political Science
David Matthew Jean-Baptiste Shedd
David Julian Shipley
†Scott Robinson Smedley, with Highest Honors in Biology
Susan Melinda Sohler
Gregory Wakefield Taylor
Tracey Anne Tenser, with Honors in American Studies and Music
*William Roland Valerio, with Honors in Art
Amy Susan Van Buren
*Jan Frederick van Eck
Ralph Ellis Van Norstrand, III
Gerard Peter Van Walsum
Wendy Anne Webster

†Elected an Associate Member of Sigma Xi
*Elected to Phi Beta Kappa

354
Degrees Conferred

Leslie Walker Williams
Margrethe Amy Winslow
Alison Marie Leavitt Woodin

Bachelor of Arts, Magna Cum Laude

Susan Baer, with Highest Honors in Chemistry
Elizabeth Ann Bennett
Jennifer Williams Bicks, with Honors in English
David Dwight Blaney
James Newton Brawner, IV, with Highest Honors in Mathematical Sciences
John Earl Butter, with Honors in Chemistry
David Edward Cohen
Bruce Lewis Daniel, with Highest Honors in Physics
Carol Lee Davenport
Julie Ana Deboo
Peter Benjamin DeWitt Duke, withHighest Honors in History
Theresa Ellen Gaims
Laurent Pierre Guéard
John Marshall Harvey
Charles Brooks Hoffman
Naoko Imanaka
Kenneth Dwight Irvine, with Highest Honors in Chemistry
Myla Hare Jordan
Larry David Krasnoff, with Highest Honors in History
Carilee Ann Lamb, with Highest Honors in Chemistry
Rebecca Anne MacDougall, with Honors in English
Elizabeth Mary Mangee
Peter Anderson Massey
Brett Hamilton McDonnell, with Highest Honors in Economics

+*Elected an Associate Member of Sigma Xi
*Elected to Phi Beta Kappa

Bachelor of Arts, Summa Cum Laude

Nathan Gibson Morrow
Steven Eric Nielsen
Anna Christina de Ozorio Nobre, with Honors in Contract Major
Paul Robert Noe, with Honors in English
Marie-Margaret Hamilton Pleus
Jennifer Jean Quinn
John Michael Rees
Carol Ann Riccardi
Timothy Armistead Burgess Rives
Randolph Christian Rogers
Marie-Elisabeth Schell, with Honors in Classics
Floyd Grady Short, with Honors in Political Science
Stuart Madgett Smith, with Honors in History
Jeff B. Speck, with Honors in Art
Jeffrey David Staiger, with Highest Honors in English
Robert Albin Tercek, with Honors in English
Todd Andrew Tibbetts, with Honors in History of Ideas
Harkanwar Uberoi
Nancy Ellen Vorsanger
Edwin Gardner Weed, II, with Highest Honors in English
Peter John Zeeb, with Highest Honors in Geology

Alison Lynn Ehrlich
William Hamilton Gillespie
Aristotelis Anastasios Papadopoulos, with Highest Honors in Physics
Michelle Marie Trina, with Highest Honors in History
Crescent Richard Varrone, with Honors in Political Science
Degrees Conferred

Conferring of the Degree of Master of Arts

Bradley Byron Brigham
Ann Murphy Burroughs
Susan Holmberg Currie
Suzanne Devine
Alice Conover Evarts
Nora Mary Heimann
Steven Samuel High
Robert J. Phelan
*Gregory Michael Grant Rubenstein
Sharon Gail Rudolph
Margaret Louise Smith
Jill Barbara Steinberg
Robert Paul Wolterstorff

Conferring of the Degree
Master of Arts or Certificate in Development Economics

Centre Babe Botana
Jung Hwan Chiang
Ana Lucia Coronel A.
Pamela Adhiambo Dede
A. Richard Dorley, Jr.
Adelfo B. Gaffud
Veronica S. Guzman
Sayeeda Bilquis Jahan
Riaz ud din Khilji
Li Jian

Mapie Lokuhannadi
Rick Chindole Malamulo
Raphael M.W. Masinde
John Charles Mlay
Charles C. Nwali
Saul Paredes
Sherifa Kamal Rahmy
Ilyas Saad
Mohammad Shahid
Stephen Wainaina
Caecilia Sri Widiarti

Botswana
Korea
Ecuador
Kenya
Liberia
Philippines
Philippines
Bangladesh
Pakistan
People’s Republic of China
Sri Lanka
Malawi
Kenya
Tanzania
Nigeria
Peru
Egypt
Indonesia
Pakistan
Kenya
Indonesia

*Robert Sterling Clark Fellow
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<th>Convocation, September 1984</th>
<th>Commencement, June 1985</th>
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<td>Malcolm Coates</td>
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<td>Norman Crowther-Hunt</td>
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<td>Seldon V. Whitaker, Jr.</td>
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<td>Stephen Jay Gould</td>
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ENROLLMENT

BY CLASSES, SEPTEMBER 1984

Graduate Students ................................................. 45
Seniors ................................................................. 516
Juniors ............................................................... 493
Sophomores ......................................................... 511
Freshmen ............................................................ 510
Total .......................................................... 2075

BY CLASSES, FEBRUARY 1985

Graduate Students ................................................. 44
Seniors ................................................................. 511
Juniors ............................................................... 489
Sophomores ......................................................... 513
Freshmen ............................................................ 508
Total .......................................................... 2065

GEOGRAPHICAL DISTRIBUTION

Alabama .............................................................. 3
Alaska ............................................................... 3
Arizona ............................................................. 6
Arkansas ........................................................... 1
California ......................................................... 110
Colorado .......................................................... 31
Connecticut ....................................................... 154
Delaware ........................................................... 13
District of Columbia ........................................... 27
Florida .............................................................. 25
Georgia ............................................................ 18
Hawaii ............................................................. 11
Idaho ............................................................... 1
Illinois ............................................................. 63
Indiana ............................................................. 8
Iowa ................................................................. 9
Kansas ............................................................. 6
Kentucky ........................................................... 6
Louisiana .......................................................... 9
Maine ............................................................. 34
Maryland .......................................................... 58
Massachusetts .................................................. 311
Michigan .......................................................... 30
Minnesota ........................................................ 26
Mississippi ......................................................... 0
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In recent years, 85% of the students in an entering class has graduated from Williams within four years. 90% within five years and 92% within eight years.
PRIZES AND AWARDS—1984-85

Olmsted Prizes—Awarded for excellence in teaching to four secondary school teachers nominated by the Williams Class of 1985. Peter J. Auger, Hyannis, Massachusetts; Margaret Cook, Winthrop, Maine; Jesse Mase, New York, New York; Alene Paterson, Fort Collins, Colorado.

Fellowships for Graduate Study Awarded in 1984-85.

Horace F. Clark Fellowship Keith A. Livers '85, Stuart M. Smith '85.
Francis Sessions Hutchins '00 Memorial Fellowship Lorna R.P. Blanco '85, Timothy B. Conley '85, Michael J. Govan '85, Reginald J. Hollinger '85.
Hubbard Hutchinson, 1917, Memorial Fellowships. Michael P. Costantino '85, Bethany S. Pray '85.
Charles B. Lansing Fellowship Jeffrey D. Staiger '85.
John Emund Moody Fellowship Alison L. Ehrlich '85.
Dr. Herchel Smith Fellowship Brett H. McDonnell '85, Susan M. Narkewicz '85, Aristotelis A. Papadopoulos '85, Crescent R. Varrone '85.
Carroll A. Wilson Fellowship No award.

Prizes awarded in 1984-85

Prizes in Special Studies

John Sabin Adriance Prize in Chemistry. Kenneth D. Irvine '85.
Kenneth L. Brown, Class of 1947, Award in American Studies. Deferred
David Taggart Clark Prize in Latin. Elizabeth M. Hines '88.
Conant-Harrington Prize in Biology. Scott R. Smedley '85.
Doris De Keyserlingk Prize in Russian. Keith A. Livers '85.
Garrett Wright Devries Memorial Prize in Spanish. Lisa C. Celona '85.
Sherwood O. Dickerman Memorial Prize. No Award.
Dwight Botanical Prize. Karen A. Montzka '85.
Frederick C. Hagedorn Jr. Prize in Pre-Medical Studies. Carol Ann Riccardi '85.
Prizes and Awards

Henry H. Hamilton '25 Pre-Medical Award. Laura A. Napolitano '85, Javier A. Zelaya '85.

Thomas G. Hardie III '78 Memorial Award in Environmental Studies. Luther H. Hodges, III, '85, Karla J. Miller '85.

Arthur Judson Prize in Music. Tracey A. Tenser '85.


Jack Larned International Management Prize. Hunsoo Kim '85, Donald C. Howe '86.

David N. Major Prize in Geology. Peter J. Zeeb '85.

Leverett Mears Prize in Chemistry. Carilee A. Lamb '85.

Willis I. Milham Prize in Astronomy. Katherine R. Bell '85.

John W. Miller Prize in Philosophy. Ian Eagleson '86.

Richard Ager Newhall Prize in European History. Deferred.

Rice Prizes in Classical Languages. (Greek) Jeffrey D. Staiger '85. (Latin) Marie-Elisabeth Schell '85.


Bruce Sanderson Award for Excellence in Architecture. Suenn Ho '85.


Ruth Scott Sanford Memorial Fellowship in Theatre. Benjamin L. Voorhies '88.


Herbert R. Silverman Award in American History. No award.


Howard P. Stabler Prize in Physics. Bruce L. Daniel '85.

Shirley Stanton Prize in Music. Sarah E. Haberer '85.

Stanley R. Strauss Prize in English. Jeffrey D. Staiger '85.

Carl Vanduyne Prize in Economics. Peter L. McKelvey '86.

Harold H. Warren Prize in Chemistry. Christopher R. Myers '88.

Karl E. Weston Prize For Distinction in Art. Michael J. Govan '85.

Essay Prizes

Academy Of American Poets Prize. Frank D. Huyler IV '87, Bethany S. Pray '85.


Comparative Literature Essay Prize. No award.

Henry Rutgers Conger Memorial Literature Prize. John A. McDermott, Jr. '87.


C. David Harris, Jr. Prize in Political Science. Henry E. Kim '86.

Lathers Prize And Medal. Crescent R. Varrone '85.

Sentinels Of The Republic Prize. No award.


Benjamin B. Wainwright Award in English. Dana C. Nadel '85.

David A. Wells Prize For Political Economy. Brett H. McDonnell '85.
Prizes and Awards

General Prizes

STIRLING A. BROWN AWARD. No award.
GROSVENOR MEMORIAL CUP. Caroline L. Cento '86.
JAMES KELLOGG AWARD. Bruce McClellan '45.
JAMES G. RODGERSON CUP AND MEDAL. William S. Allen '34.
WILLIAM BRADFORD TURNER CITIZENSHIP PRIZE. Jan F. Van Eck '85.

Rhetorical Prizes

DEWEY PRIZE. David S. Wehner '85.
GRAVES PRIZE FOR DELIVERY OF ESSAY. Steven E. Nielsen '85, Kim M. Zullo '85.
ELIZUR SMITH RHETORICAL PRIZE. No award.
VAN VECHTEN PRIZE. No award.

Athletic Prizes

BOURNE-CHAFFEE WOMEN'S TENNIS AWARD. Laura E. Rogers '86.
FRANCIS E. BOWKER JR. SWIMMING PRIZE. Scott E. Healy '88.
BELVIDERE BROOKS MEMORIAL MEDAL. Reginald J. Hollinger '85.
J. EDWIN BULLOCK WRESTLING TROPHY. Jeffrey J. May '85.
CANBY ATHLETIC SCHOLARSHIP PRIZE. Alison L. Ehrlich '85.
CLASS OF 1925 SCHOLAR ATHLETE AWARD. Laura Napolitano '85, Emily Sneath '85.
DR. COUGHLIN BOWL. Anthony F. Gioffree '85.
BRIAN DAWE AWARD (MEN'S CREW). Matthew W. Hettle '85.
DR. I.S. DRIBBEN '24 AWARD. Christopher B. Harned '85, Michael W. Hennigan '85.
FOX MEMORIAL SOCCER TROPHY. Douglas E. McKenny '85, John A. Mitchell, Jr. '85.
GOLF TROPHY. Michael W. Hennigan '85.
WILLARD E. HOYT, JR. '23 MEMORIAL AWARD. Timothy A. Rives '85.
NICKLES HUSTON MEMORIAL AWARD. Mark A. Morrison '88.
ROBERT W. JOHNSTON MEMORIAL TROPHY. Michael R. Coakley '85.
MEN'S LACROSSE AWARD. Michael J. O'Connell '87, Jonathan N. Edie '88.
WOMEN'S LACROSSE AWARD. Allison M. Fuller '85.
ROBERT B. MUIR MEN'S SWIMMING TROPHY. John F. Peloso '85.
ROBERT B. MUIR WOMEN'S SWIMMING TROPHY. Katharine P. Echrich '85.
ANDREW D.C. OLIVER INTRAMURAL SPORTS AWARD. Bryant House.
FRANKLIN F. OLMSTED MEMORIAL AWARD. John M. Ellison '86.
ANTHONY PLANZKY TRACK AWARD. Kevin P. Jenkins '85.
LEONARD S. PRINCE MEMORIAL SWIMMING PRIZE. Jody E. Skidd '88.
PURPLE KEY TROPHIES. (Men) Paul Coleman Jr. '85. (Women) S. Lindsay Rockwood '85.
MICHAEL D. RAKOV MEMORIAL AWARD. James P. Franz '87.
PAUL B. RICHARDSON SWIMMING TROPHY. William J. Andrew '86.
CHARLES DEWOODY SALMON AWARD. Jerome P. Rizzo '87.
Prizes and Awards

**Scribner Memorial Tennis Trophy.** Timothy A. Rives '85.
**Edward Shaw Memorial Squash Award.** Wendell K. Chestnut '88.
**Shulman Women's Tournament Cup.** Elizabeth A. Shulman '86, Jill M. Shulman '87.


**Team of 1982 Women's Volleyball Award.** Mary E. Hickcox '86.

**Oswald Tower Basketball Award.** Timothy J. Walsh '86.

**Dorothy Towne Track Award.** C. Lindsay Rockwood '85.

**Ralph J. Townsend Ski Trophy.** John Pier III '85.

**Williams Alumnae Skiing Award.** Katherine C. Knopp '85.

**Women's Squash Award.** Hilary A. Thomas '85.

**Young-Jay Hockey Trophy.** Brian D. Rutledge '85.

Off Campus Programs 1985

**Mead Government Interns:** Sara E. Beadle '86, Lori B. Jonas '87, Christopher J. McGuire '86, Jennifer S. Mead '86, Michael J. Mellis '87, Anne D. Southworth '86.

**Williams-In-Hong Kong.** Janet E. Curry '85.
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CALENDAR 1985-86

1985
Sept. 5-7 Thursday through Saturday
Sept. 7 Saturday
Sept. 7 Saturday
Sept. 9 Monday, 8:00 a.m.
Oct. 5 Saturday
Oct. 11 Friday, 5:00 p.m.
Oct. 14 Monday
Oct. 16 Wednesday, 8:00 a.m.
Oct. 25-27 Friday through Sunday
Nov. 9 Saturday
Nov. 27 Wednesday, 12:50 p.m.
Dec. 2 Monday, 8:00 a.m.
Dec. 6 Friday, 5:00 p.m.
Dec. 7-10 Saturday through Tuesday
Dec. 11-17 Wednesday through Tuesday
Dec. 17 Tuesday, 5:00 p.m.

1986
Jan. 6 Monday, 8:00 a.m.
Jan. 6 Monday, 8:00 a.m.
Jan. 30 Thursday, 5:00 p.m.
Jan. 31-Feb. 4 Friday through Tuesday
Feb. 5 Wednesday
Feb. 6 Thursday, 8:00 a.m.
Feb. 14-15 Friday and Saturday
March 21 Friday, 5:00 p.m.
March 24 Monday
April 7 Monday, 8:00 a.m.
April 25-27 Friday through Sunday
May 16 Saturday through Tuesday
May 21-27 Wednesday through Tuesday
June 7 Saturday
June 7 Saturday
June 8 Sunday, 10:00 a.m.
June 12-15 Thursday through Sunday

Freshman Days
Freshmen meet Faculty Advisers
Enrollment (to be completed by 4:00 p.m.)
First semester classes begin
Inaugural Convocation
Fall reading period begins
Freshman warnings due
Fall reading period ends
Freshman Parents' Weekend
Homecoming
Thanksgiving recess begins
Thanksgiving recess ends
First semester classes end
Reading period
Midyear examinations
Vacation begins
Vacation ends
Winter Study period begins
Winter Study period ends
Mid-winter recess
Enrollment (to be completed by 4:00 p.m.)
Second semester classes begin
College Holidays (Winter Carnival)
Spring recess begins
Freshman warnings due
Spring recess ends
Parents' Weekend
Second semester classes end
Reading period
Final examinations
Class Day
Baccalaureate Service
Commencement
Alumni Reunions

NUMBER OF CLASS MEETINGS

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The Winter Study Period covers 25 calendar days.

NOTE: Major religious holy days occur as follows: Rosh Hashanah, September 16, 1985; Yom Kippur, September 25, 1985; Good Friday, March 28, 1986. It would be appreciated by members of the community if scheduling of required exercises could be avoided on these days.