College of the Holy Cross

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College of the Holy Cross

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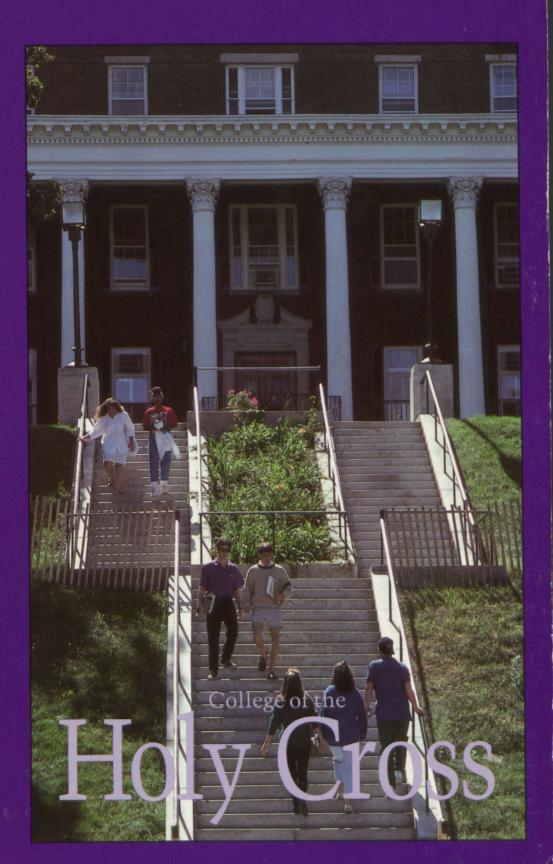


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The College of the Holy Cross

Incorporated as "Trustees of the College of the Holy Cross" in the Commonwealth of Massachusetts in 1865.

Holy Cross College admits qualified students of any race, color, national and ethnic origin, sex, age or handicap to all the rights, privileges, programs and activities generally accorded or made available to its students. It does not discriminate on the basis of race, color, national and ethnic origin, sex, age or handicap in the administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other school-administered programs. Applicants seeking information on these matters should call or write to the Holy Cross Affirmative Action Officer, Holy Cross College, Worcester, Mass. 01610.

The College Catalog is a document of record issued in September 1990. The Catalog contains current information regarding the College calendar, admissions, degree requirements, fees, regulations and course offerings. It is not intended to be and should not be relied upon as a statement of the College's contractual undertakings.

The College reserves the right in its sole judgement to make changes of any nature in its program, calendar or academic schedule whenever it is deemed necessary or desirable, including changes in course content, the rescheduling of classes with or without extending the academic term, cancelling of scheduled courses and other academic activities, and requiring or affording alternatives for scheduled courses or other academic activities, in any such case giving such notice thereof as is reasonably practicable under the circumstances.

The College is accredited by the New England Association of Schools and Colleges, Inc., a non-governmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering post-graduate instruction.

Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited school or college is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the New England Association is not partial but applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding the status of an institution's accreditation by the New England Association should be directed to the administrative staff of the school or college. Individuals may also contact the Association at the Sanborn House, 15 High St., Winchester, MA 01890.

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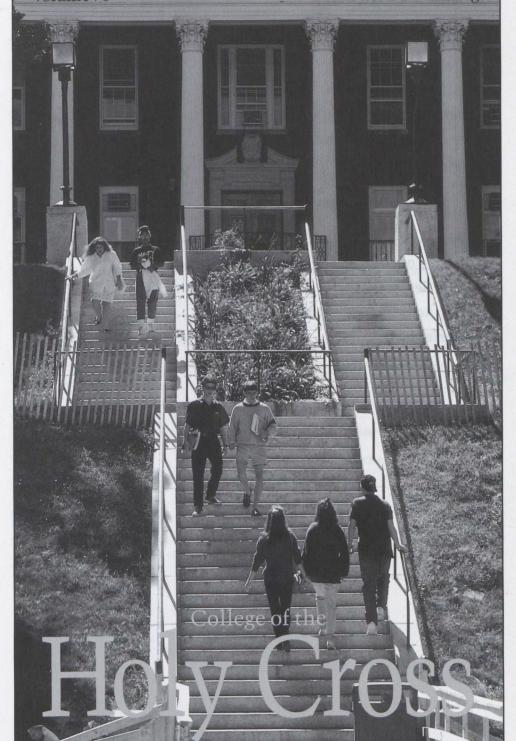


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Academic Calendar

1990-1991

Fall Semester

Saturday	August 25	First-year students arrive.
•	Ü	Mass of the Holy Spirit.
Sunday	August 26	Orientation.
Monday	August 27	Advising for readmits and transfers.
,	Ü	Orientation for Freshmen.
Tuesday	August 28	A.M. — Advising for Freshmen.
,	Ü	A.M. and P.M. — Registration for Freshmen.
Wednesday	August 29	Registration for upperclasses.
,	O	Classes begin.
Monday [,]	October 8	Columbus Day — no classes.
Tuesday	October 9	No classes.
Tuesday	November 20	Thanksgiving recess begins after last class.
Monday	November 26	Classes resume.
Wednesday	December 5	Study period begins.
Saturday	December 8	Final examinations begin.
Saturday	December 15	Final examinations end.

Spring Semester

Tuesday	January 15	Advising and registration.
Wednesday	January 16	Classes begin.
Friday	March 1	Spring vacation begins after last class.
Monday	March 11	Classes resume.
Wednesday	March 27	Easter recess begins after last class.
Tuesday	April 2	Classes resume.
Wednesday	May 1	Study period begins.
Saturday	May 4	Final examinations begin.
Saturday	May 11	Final examinations end.
Thursday	May 23	Baccalaureate Exercises.
Friday	May 24	Commencement.
•	-	

The College of the Holy Cross

One of the best liberal arts colleges in the United States, Holy Cross is highly respected for its superior undergraduate academic programs, excellent faculty, and the intelligence, imagination and achievements of its students. It is also well-known for its strong, well-supported and enthusiastic commitment to the principle of educating men and women for others, in a com-

munity that generates a strong feeling of belonging and a vital sense of loyalty.

As a Jesuit College, Holy Cross takes its place in a 450-year tradition of Catholic education that has distinguished itself for intellectual rigor, high academic standards, and religious and moral sensitivity. Academic life at Holy Cross is serious and challenging. The excitement of it is experienced by both students and members of the faculty. It is the excitement of discovery students discovering new things in literature, science, the arts, mathematics, religion professors discovering new things through their research, in their laboratories and in the libraries. Student-professor exchanges in the classroom, as well as in countless informal settings, are at the center of academic life at Holy Cross. Because the student body is 100 percent undergraduate and relatively small, the opportunity for individual attention is readily available. Students know their professors. Professors know and take a genuine interest in their students. The College recognizes that its able, professional and talented faculty members comprise the particular ingredient that ultimately shapes the educational experience. They are widely respected in their academic specialties. Many have national reputations for their research and publications. Almost all of the nearly 250 full and part-time faculty members hold doctoral degrees from some of the finest universities here and abroad. They conduct research supported by grants from foundations, government agencies and private sources. In recent years, the results of their scholarship have appeared in 875 professional and scholarly journals and in more than 75 books.

Holy Cross faculty members also are dedicated to excellence in teaching and to service. They strike an appropriate balance between the transmission of knowledge and the investigation of new ideas. This insures that the classroom experience is vital and that scholarly research is meaningful. It is the faculty that leavens the whole and is largely responsible for the enviable reputation that Holy Cross has worked hard to achieve, as a place where strong, first-rate liberal arts education can be and is experienced.

Holy Cross is a leader among those institutions that aspire to excellence in undergraduate

education. In recent years, its leadership has been demonstrated by:

 Its membership in the Oberlin Group of 48 — a select group of prestigious, undergraduate, liberal arts schools distinguished by their extremely strong and productive undergraduate science curricula.

 Its award of a National Endowment for the Humanities challenge grant of \$600,000, to be matched by the College on a four-to-one basis, in order to create a \$3 million fund for three endowed professorships in the humanities.

 Its inclusion in the New England Consortium for Undergraduate Science Education, a group of 16 of New England's most prestigious colleges and universities, which work together in efforts

to strengthen undergraduate science instruction.

• Its award from the Henry R. Luce Foundation of a \$450,000 grant to establish a Luce Professorship in Religion, Social Justice and Economic Development, placing Holy Cross among only

24 institutions — most of them large research universities — so recognized.

Holy Cross is a place to learn how to learn, and not a place to seek job training. The fundamental purpose of the College is not to train students for specific occupations, but to inform the mind, to foster clear thought and expression as a goal achieved by a balanced study of the arts and the sciences.

A distinguishing and all-important characteristic of education at Holy Cross is the emphasis placed upon the service of faith and the promotion of justice. As a Jesuit college, the cultivation of intellectual, social, religious and ethical refinement is not an end in itself. Rather, it has as its purpose the advancement of the Kingdom of God in His people. In the concrete, this means educating young people to be truly concerned about human welfare, about making our economies more just, and about placing men and women in public office who are honest and honorable. It has as its purpose the education of men and women who in their family life will be examples of Catholic ideals and practice, leaders in their parishes and in their communities.

Founding

The oldest Catholic college in New England, Holy Cross was founded in 1843 by the second bishop of Boston, Benedict Joseph Fenwick, S.J., who gave it the name of his cathedral, the Cathedral of the Holy Cross, along with the seal and motto of the Diocese of Boston.

From the start, the bishop entrusted the direction of the College to the Fathers of the Society of Jesus. The beginnings were very modest: one wooden building, a half-finished brick struc-

ture, and 52 acres of land.

Today the College is a large educational complex, complete with chapel, libraries, a modern science center, classrooms, residence halls, football stadium, hockey rink and campus activity center, spread over 174 sloping acres. It is a community of 2,600 students, half of them men and half women. Few classes exceed an enrollment of 40, and most average around 20. The atmosphere this community of scholars creates, both collectively and separately, is frequently described as welcoming and friendly, where students receive encouragement and support from classmates and professors.

Coeducational since 1972, Holy Cross enrolls a student body of young men and women of proven accomplishment. Almost all of them have been graduated in the top 20 percent of their high school classes. Most live in nine residence halls on campus. These are run by the Dean of Students' Office with the help of students who organize the many activities through their House Councils. Students, elected by their peers, represent their classmates at faculty meetings, on major College committees, and in a consultative capacity on the appointment and pro-

motion of faculty.

Affiliations

The College of the Holy Cross is a member of, or accredited by, the following educational institutions:

American Academy of Religion, American Academy in Rome, American Association of Collegiate Registrars and Admissions Officers, American Association of Higher Education, American Association of University Women, American Conference of Academic Deans, American Council of Learned Societies, American Film Federation Society, Association of Jesuit Colleges and Universities, American Council on Education, American Mathematical Society, American School of Classical Studies of Athens, American School for Oriental Research, Association of American Colleges, Association of Independent Colleges and Universities in Massachusetts, College Entrance Examination Board, College Placement Council, Consortium of Supporting Institutions of the Hebrew Union College Biblical and Archaeological School of Jerusalem, Council for Advancement and Support of Higher Education, Educational Testing Service, Institute of European Studies, Mathematical Association of America, National Association of Student Personnel Administrators, Catholic Education Association (National and New England), National Commission on Accrediting, New England Association of Schools and Colleges, Society for Scientific Study of Religion, Sigma Xi and Worcester Consortium for Higher Education.

The Academic Program

General Requirements

Holy Cross offers a curriculum leading to the Bachelor of Arts (A.B.) degree with majors in 18 fields. The successful completion of 32 semester courses, four in each semester, is required for graduation.

Each student's curriculum consists of distribution requirements, a major and free electives. Under the distribution requirements, students select 10 courses from a wide variety of offerings in six general areas. A major consists of a maximum of 14 semester courses in a selected field. Some departments also require courses in allied fields. This leaves between nine and 13 free electives.

Distribution Requirements

Students will be required to complete successfully courses in the six areas of the curriculum described below. A total of 10 distribution courses is required. No more than two courses in

any one department may be counted toward the distribution requirements.

In addition, all students must demonstrate competence in a classical or modern foreign language in one of the following ways: scoring 570 or higher in a College Board Achievement Test, getting a 3 or better in an Advanced Placement Test, passing one of the qualifying examinations that are administered each semester by the Departments of Classics and of Modern Languages and Literatures, or successfully completing the second semester of an intermediate-level language course at Holy Cross.

The Arts, Language and Literature

The arts, language and literature are concerned with the study and experience of aesthetic forms as expressions of meaning. Literature and the arts involve the study of both the aesthetic and creative aspects of human expression and an appreciation of the process involved. The study of languages provides a basis for close textual analysis which is indispensable for literary

Requirement: 1 course in the arts; 1 course in language or literature.

Religious and Philosophical Studies

The study of religious experience addresses the human quest for ultimate meaning as discovered in the relation of natural to supernatural, finite to infinite, temporal to eternal. The longstanding Jesuit tradition of Holy Cross gives it the freedom to advocate the educational importance of this area.

The distinctive function of philosophical studies is the rational interpretation (analysis, evaluation, synthesis) of meanings and values wherever they are found.

Requirement: 1 course each in religious and philosophical studies.

Historical Studies

Historical studies involve the description, ordering and interpretation of the past. Through the study of what people have done and what they have become, historical studies clarify the meaning of human experience.

Requirement: 1 course.

Cross-Cultural Studies

Cross-cultural studies examine contemporary societies and cultures other than one's own. Courses in this area are intended to expand one's frame of reference by providing an awareness of the similarities and differences among the peoples of the world, as well as to foster a sense of belonging to a larger community. Requirement: 1 course.

Social Science

The social sciences systematically investigate human behavior, social institutions and society. Their objectives are to identify, through replicable and systematic observations, general patterns of human behavior, formulate explanations for these relationships, and develop predictive models. The social sciences traditionally include anthropology, economics, political science. psychology and sociology.

Requirement: 2 courses.

Natural and Mathematical Sciences

Natural science is concerned with the systematic investigation of that part of the physical universe which is not of human design or invention. The method of investigation involves the formulation of falsifiable hypotheses that generate predictions which can be tested empirically, with the result that a large array of natural phenomena can be explained by a small number of laws and/or theories. Fundamental to this activity is the treatment of the measurement, properties and relationships of quantities.

Mathematical science provides the tools for quantitative analysis. As an independent discipline it gives structure to abstractions of the human mind and very often provides natural

science with models on which to build physical theories.

Computer science has been added to this area in response to its recent emergence as a separate field of mathematics and an indispensable tool of scientific experimentation.

Requirement: 2 courses, at least one of which is in a natural science.

Majors

Students must also fulfill the requirements of a major. In order to allow for both the breadth and depth of academic experience that should characterize each stage of a liberal arts education, the student must declare a major before the preregistration period preceding the junior year. A major normally consists of a minimum of 10 and a maximum of 14 courses selected from a group of courses within a department. Certain courses, however, may not count toward the minimum or maximum number of courses in a given department, and some departments require additional courses in allied fields. More details about the requirements of individual majors are found in later sections of this catalog under the corresponding departmental descriptions.

The following majors qualify for the Bachelor of Arts degree: biology, chemistry, classics, economics, economics-accounting, English, history, mathematics, modern languages and literatures (French, German, Russian, Spanish, Studies in European Literature), music, philosophy, physics, political science, psychology, religious studies, sociology, theatre and visual arts. Information on Multidisciplinary Majors appears in the section of the catalog on the Office of Special Studies. Students are expected to confirm their plans for the fulfillment

of major and degree requirements with the designated faculty advisor.

A double major is one of the curriculum options available at the College. Students desiring double major status must receive the approval of the appropriate department chairs and assistant dean. An application for double major status must receive approval no later than the preregistration period for a student's sixth semester, except in those cases where a student spends the fifth semester away from campus. In those cases, approval must be obtained prior to the completion of registration during the semester the student returns to campus. Students with double major status are restricted to taking the minimum number of courses necessary to complete each major, or 10 courses in each major, whichever is higher.

To qualify for a degree from the College, at least one half of a student's courses, including the two full semesters of senior year, must be completed at the College of the Holy Cross. Students are permitted, however, to participate in the Washington Semester and Semester-Away programs through the Office of Special Studies in the first semester of their senior year.

Granting College Credit

Holy Cross will grant college credit for courses taken in high school provided: (a) they are taken at an accredited college or university (i.e. on the campus); or (b) they are taught at the high school by a full-time faculty member of an accredited college or university.

Verification of either criterion must be submitted in writing to the class dean at Holy Cross

by the secondary school principal or headmaster.

A final grade of "B" or better is required and the courses must be similar in rigor and content to those normally offered at Holy Cross. Complete descriptions of each course for which the student is requesting credit must be forwarded to the class dean. Approval for credit rests with

the appropriate department chair at Holy Cross.

Students may request acceptance of any or all of the college-level courses completed while in high school. This request should be made in writing to the class dean at Holy Cross prior to November 15 of the student's freshman year. The grades for courses accepted for credit will be calculated in the Quality Point Index at Holy Cross except for semester and graduation honors.

A maximum of eight semester courses will be accepted in transfer for the incoming freshman. They will apply toward graduation if the equivalent of either one or two full semesters is accepted, i.e. four or eight courses. Courses accepted for credit that do not constitute a full semester (four courses) will apply toward graduation only if they are used to remove a deficiency. Students with fewer than four courses (the equivalent of a full semester) accepted for credit may as freshmen have the opportunity to elect upper-division courses at the discretion of the department chair.

Incoming freshmen who have been given credit for fewer than four college-level courses but who have Advanced Placement Examination credits awarded by Holy Cross in several subjects

may request early graduation on the following supportive grounds:

(a) evidence of serious consideration as to the desirability of an accelerated degree-program and the counsel and encouragement of a faculty advisor and the class dean in planning the scope and the sequence of future course work;

(b) a distinguished record of academic achievement during freshman year.

Requests for an accelerated degree-program may be submitted at any time during freshman year or at the time of entrance to the College. Because approval of such a request rests upon evidence of prior determination and a carefully planned sequence of courses, requests ordinarily will not be considered after the end of freshman year. Final approval will not be granted until sometime after the completion of freshman year. Students should submit requests through the office of the class dean. A final decision in the matter of early graduation rests with the dean of the College.

The Advisory Program

Holy Cross provides each freshman with a faculty advisor who assists the student with curriculum planning and course selection. The assignment of the advisor is made in the summer prior to enrollment. The advising relationship continues throughout the four years — although the advisor may change, depending on the student's needs and the needs of the major department.

Written Expression

The following statement was accepted at the regular faculty meeting of December 3, 1973:

- 1. All of us, students and teachers alike, share responsibility for promoting the effective and wise use of language. Language is central to education since it is the chief means by which the transmission and exchange of ideas take place. And nowhere are clarity and precision of language so important or so difficult to achieve as in writing. We ought therefore to take special care to encourage excellence in writing, both in our own work and in the work of our students. To achieve this end students should:
 - a. recognize that they are expected to write well at all times;
 - b. realize that the way they say something affects what they say;

c. write, revise, and re-write each paper so that it represents the best work they are able to do.

2. Similarly, faculty members should:

- a. set high standards for their own use of language;
- b. provide appropriate occasions for students to exercise their writing skills;

c. set minimum standards of written expression for all courses;

d. acquaint the students with those standards and inform them of their responsibility to meet them and the consequences if they do not;

e. evaluate written work in light of effectiveness of expression as well as by content;

f. aid students in their development by carefully pointing out deficiencies in their written work and assist them with special writing problems arising from the demands of a particular field of study.

Registration

Information and instructions concerning registration are distributed by the Office of the Registrar to all students approximately one month in advance of the beginning of each semester.

Preregistration for courses takes place in the preceding semester.

Formal registration takes place immediately preceding the opening of classes each term. Late registration and changes of course are permitted during the period designated by the Registrar. Freshmen are permitted to change courses in the registration period of the fall semester only with the approval of the assistant dean (freshman class dean). Withdrawal from a course may be permitted during the first 10 weeks of the term with the grade of W. The W grade is not included in the calculation of the Q.P.I.

Failure to comply with the procedures specified by the Registrar for registration, changes of course, and withdrawal from a course may result in either denial of credit or failure in the course.

Grading System

A student's standing will be determined by the results of examinations, classroom work and assignments. Each semester only one grade will be submitted for each course for each student; this will be a composite grade for oral presentations, reading assignments, classroom discussions, tests, etc., and the final examination (which will normally carry one-third weight in determining the composite grade). There is no official College translation of numerical scores into letter grades other than the quality point multiplier defined below.

Reports of academic grades are sent to students and to their parents or guardians at the end

of each semester.

The following symbols are used to indicate the quality of the student's work in each course:

1		•
Quality Point Multiplier	Symbol	Description
-	-	7
4.0	A	Excellent
3.7	A-	
3.3	B+	
3.0	В	Good
2.7	B-	
2.3	C+	
2.0	C	Satisfactory
1.7	Č-	,
1.3	Ď+	
1.0	Ď	Low Pass
0.0	F	Failure
. 0.0		
	IP	In Progress
	W .	Withdrawal
	AU	Audit
	AB	Absence from Final Examinations
	I	Incomplete
	P	Pass
	NP	No Pass (Failure)
	I	(Grade not submitted)
	,	(

The grade AB is changed to F unless the Absentee Examination is successfully taken at the time appointed by the registrar. The grade of I becomes an F unless a subsequent grade is submitted to the registrar within one week of the last day of final examinations. Exceptions to these regulations will be granted only by the appropriate assistant dean, and only upon written petition by the faculty member, or after consultation with the faculty member if, as in the case of illness, the dean initiates the request.

Withdrawal from a course, with the approval of the assistant dean, after the add/drop period will be graded W. Withdrawal from any course after the tenth week leads automatically to an

F, as does withdrawal without approval at any time.

A student who, during a given semester, has not earned passing letter grades (other than P) in four courses which count toward the 32-course graduation requirement incurs a "deficiency." The number of deficiencies incurred is equal to four minus the number of earned passing letter grades just mentioned.

Final Grade Review Policy: Every student has the right to a formal review of a disputed final grade. The student should first appeal to the teacher, and then, if necessary, to the assistant dean. (Consult the Student Handbook for the full procedure.)

Quality Points: Each of the grades from A to F in the above list is assigned a multiplier, as indicated, which weights the grade in computing averages. Multiplying this weighting factor by the number of semester credits assigned to the course gives the quality points earned in it.

None of the other grades in the above list carries quality point multipliers; credits associated with such grades are not used in calculating averages.

Quality Point Index: Dividing the total number of quality points achieved in all courses by the number of credit hours assigned to these courses determines the Quality Point Index (Q.P.I.), or scholastic average.

The Semester Q.P.I. is calculated on credits and quality points earned in a single semester: when all the student's credits and quality points to date are used, the calculation yields the Cumulative O.P.I.

Honor Grades: The following criteria determine honor grades:

Dean's list — dean's list status requires the passing of four or more courses with no failing grades during the semester and the following Q.P.I.'s: First Honors: A semester Q.P.I. of 3.700 or above, and Second Honors: a semester Q.P.I. of 3.500 to 3.699.

Graduation Honors — Summa Cum Laude: A cumulative Q.P.I. of 3.870 or above; Magna Cum Laude: A cumulative Q.P.I. of 3.700 to 3.869; and Cum Laude: A cumulative Q.P.I. of 3.500 to 3.699.

In calculations of the Q.P.I. for the dean's list or for Graduation Honors, only those credits and quality points earned at Holy Cross (including those earned during Junior Year Abroad or during an approved semester or year's leave spent at another accredited institution) may be counted.

Pass/Fail: The grades of P and NP are the "Pass/Fail" grades. The option of Pass/Fail grading is in effect only for those students taking five courses in a semester. The course taken on a Pass/Fail basis may be within the student's major field but may not be used to fulfill any of the requirements of the major.

Following are the qualifications for the Pass/Fail Option:

1. Students who wish to take a course on a Pass/Fail basis shall have one week beyond the termination of the designated registration period in which to decide which of the five courses chosen during the registration period is to be taken on the Pass/Fail basis. A special Pass/Fail form available in the Office of the Registrar must be filled out and filed with that office during the period designated for the declaration of the Pass/Fail option.

2. The teacher involved will know the names of all students who have registered for a course on a Pass/Fail basis. The grades P or NP will be assigned to the students by the teacher. Courses taken on a Pass/Fail basis shall not be counted towards the fulfillment of major requirements,

if students change their majors.

- 3. Pass/Fail grades will not be averaged into a student's Q.P.I but will be placed on the student's record.
- 4. If, during the first ten weeks of the semester, a student withdraws from any of the four courses taken for a letter grade, a Pass/Fail registration in the fifth course will automatically be converted to a letter-grade course registration.

Fifth Course

Students, after consulting with their faculty advisor, may take a fifth course without charge. The following policies are in effect with regard to the fifth course:

1. Registration for a fifth course takes place only after all students have been registered for

the normal four-course program.

- 2. A fifth course may be used by students for enrichment purposes or, after freshman year, for the removal of a course deficiency. In the latter case, the fifth course must be taken for a letter grade.
- 3. A fifth course may not be used for the removal of deficiencies incurred in subsequent semesters.
 - 4. Students must have a cumulative Q.P.I. of at least 2.000 in order to register for a fifth course.
- 5. A fifth course taken for a letter grade will be included in the calculation of the cumulative average for all purposes including the award of honors.

Absence Due to Religious Belief

Students who are unable, because of religious beliefs, to attend classes or to participate in any examination, study or work requirement on a particular day shall be excused from any such examination, or study or work requirement, and shall be provided with an opportunity to make up such examination, study or work requirement which they may have missed because of such absence on any particular day; provided, however, that such makeup examination or work shall not create an unreasonable burden upon the College. No fees of any kind shall be charged for making available to students such opportunity. No adverse or prejudicial effects shall result to students because they availed themselves of these provisions.

Academic Honesty

The College of the Holy Cross is committed to creating an intellectual community in which both faculty and students participate in the free and uncompromising pursuit of truth. This is possible only in an atmosphere of mutual trust where the discovery and communication of truth are marked by scrupulous, unqualified honesty. Any violation of academic integrity wounds the whole community and undermines the trust upon which the communication of knowledge and truth depend. The principal violations of academic integrity are cheating, plagiarism, and

Cheating is the use or attempted use or improper possession of unauthorized aids in any examination or other academic exercise submitted for evaluation. This includes data falsification, the fabrication of data or deceitful alteration of collected data included in a report.

Plagiarism is the deliberate act of taking the words, ideas, data, illustrative material, or statements of someone else, without full and proper acknowledgement, and presenting them as one's own.

Collusion is assisting or attempting to assist another student in an act of academic dishonesty. Faculty Responsibility. At the beginning of each course the teacher should address the students on academic integrity and how it applies to the assignments for the course. The teacher should also make every effort, through vigilance and through the nature of the assignments, to discourage and prevent dishonesty in any form.

Student Responsibility. It is the responsibility of the student, independent of the faculty member's responsibility, to familiarize himself/herself with the details of how plagiarism is to be avoided, and the proper forms for quoting, summarizing, and paraphrasing, presented in standard handbooks, for example, "Avoiding Plagiarism," The Little Brown Handbook, pages 482-486,

and Harbrace College Handbook, page 372.

Enforcement. The faculty member who observes or suspects academic dishonesty should first discuss the incident with the student.

The very nature of the faculty-student relationship requires both that the faculty member treat the student fairly and that the student respond to the teacher's questions concerning the integrity of his or her work. If the teacher is convinced that the student is guilty of academic dishonesty he or she shall report the incident in writing to the Chair of the department and the student's Class Dean within a week of the instance. The Class Dean will then inform the student in writing that such a charge has been made and of his or her right to have the charge reviewed.

This request for a formal review must be written and submitted to the Class Dean within one week of the notification of the charge by the Class Dean. The written statement must include a description of the student's position concerning the charge by the teacher. The Chair of the department of the faculty member involved shall receive a copy of the student's written statement from the Class Dean. By the end of two weeks the Chair of the department and the Class Dean will investigate the charge and review the student's statement, meeting separately with the student and the faculty member involved.

If, after this review, the faculty member remains convinced that the student is guilty of academic dishonesty, within one week of the review of the student's request, he or she shall administer a zero for that assignment and his or her initial written report to the Class Dean shall remain a part of the student's file until graduation, at which time it shall be removed and destroyed unless a second offense occurs. The Class Dean shall promptly inform the student of

the decision made.

A second offense against academic honesty, which may be reviewed as described above, will result in automatic dismissal from the College. Students dismissed for academic reasons may appeal their dismissal to the Committee on Academic Standing, as described in the following

Requirements for Advancement

To be eligible for academic advancement a student must meet the minimum cumulative average and course requirements given in the next section.

Academic Probation: Academic Probation is not a penalty, but a warning and an opportunity for improvement; probationary status has a duration of one semester, and is determined by a student's low cumulative average (Q.P.I) at the end of the preceding semester, unless this has been sufficiently improved by success in an intervening summer session.

As soon as students are placed on or removed from probation, they will be notified in writing by the Registrar of such action; copies of the notice will be sent to their parents and advisors.

The following rules delineate the limits of academic probationary status:

Freshman Year. Any freshman having a cumulative average of 1.750 but less than 2.000 at the end of the freshman year will be on probation for the first semester of the sophomore year.

Sophomore Year. A sophomore with a cumulative average of 1.850 but less than 2.000 at the end of the first semester will be on probation for the second semester of sophomore year.

Any student who fails to maintain a cumulative 2.000 Q.P.I. at the end of all semesters after the third will be suspended in the first instance and dismissed in a subsequent instance.

Students who have been withdrawn because of a low cumulative Q.P.I. and whose appeal has been upheld by the Committee on Academic Standing are automatically placed on probationary status.

Removal of Probation and Deficiency: Probationary status is ordinarily removed by the achievement, the next semester, of the cumulative average required for that semester. Grades of Cor better, earned in summer session courses at an accredited institution and approved in advance by the appropriate department chair, may be accepted in transfer by the College for the improvement of one's Q.P.I. Credits and quality points accepted in transfer will be recorded on the student's permanent record, and included in the calculation of the cumulative average, for all purposes other than the award of graduation honors. A deficiency must be removed by a grade of C or better, earned in a summer session course approved in advance by the appropriate

department chair or by enrollment in a fifth course for a letter grade, before the beginning of a student's senior year. No student will be permitted to begin a new academic year with more than one course deficiency.

Deficiencies may also be removed by the use of Advanced Placement credits except during

a semester in which a student becomes liable to academic suspension or dismissal.

The credits attempted in the failed course will remain on the student's transcript, and will be used in calculating the average; credits and quality points accepted in transfer to remove the deficiency will be recorded and used in calculation of the cumulative Q.P.I., except for the award of graduation honors.

Academic Dismissal: A student will be withdrawn from the College for any of the following reasons:

a. two course failures (any combination of F or NP) in any single semester;

b. three course failures (any combination of F or NP) in any single academic year;

c. a total of six course failures (any combination of F or NP) on one's Holy Cross transcript;

d. a cumulative OPI of less than 1.750 after the second semester (end of freshman year), of less than 1.850 after the third semester, and of less than 2.00 after the fourth semester (end of sophomore year) or any subsequent semester;

e. a second instance of academic dishonesty.

Course failures will contribute to an academic withdrawal as outlined above, even though the deficiencies may have been removed by attendance at summer session or the use of Advanced Placement credits. Furthermore, Advanced Placement credits may not be used to remove a deficiency caused by course failure during a semester in which a student becomes liable to academic suspension or dismissal.

A first withdrawal results in academic suspension for one year. After the one-year suspension, readmission is automatic, contingent upon receipt of a written request for readmission by the Class Dean. Any course deficiencies incurred by the student must be removed prior to the student's return. A second withdrawal results in academic dismissal, which is ordinarily

considered final.

Appeals of suspensions or dismissals for academic reasons may be made to the Committee on Academic Standing. The letter of suspension or dismissal from the Class Dean will provide students and parents with the necessary details of appeal. The Class Deans are available for consultation regarding appeal procedures and will also inform the student of the final committee decision.

Voluntary Withdrawal from the College: Students who withdraw voluntarily from the College are entitled to separation in good standing under the following conditions:

1. They must not be liable to dismissal for disciplinary reasons.

2. They must not be liable to suspension or dismissal for academic reasons.

3. They must return all College property.

4. They must settle all financial indebtedness with the College.

5. They must properly notify the assistant dean of their intention to withdraw.

Leave of Absence

A student at the College is permitted to be absent from the campus for a period of one or two semesters provided the following conditions are met satisfactorily:

1. The request for a Leave of Absence may be made during the semester prior to the proposed

leave, but may only begin as of the end of a regular semester. 2. A student must be in good academic standing at the end of the last semester before the leave

is to begin.

3. A Leave of Absence is normally granted for a one-year period of time. In exceptional circumstances (e.g., military service) the initial grant may be given for a longer period of time. If the leave is not renewed before the expiration date of the leave, the student will be withdrawn automatically.

4. The student is required to file in writing with the appropriate assistant dean his or her reason for requesting or for renewing a Leave of Absence.

5. A student on Leave of Absence must leave the College campus community and ceases to

be entitled to campus activities.

- 6. A student on a leave, upon written notification to the appropriate assistant dean of his or her intent to return to the College, will be readmitted automatically.
- 7. A student on a Leave of Absence will be required to pay a fee of thirty dollars (\$30) for each semester on leave.
- 8. A student will ordinarily not receive academic credit for courses taken at other institutions while on leave from the College.

Readmission To The College

Students who have withdrawn in good standing and who wish to be readmitted to the College must apply to the office of the appropriate assistant dean. All materials for readmission (completed application form, letters of recommendation, transcripts of all intervening work, statements of good standing and other substantiating documents that the assistant dean may require) must be in the hands of the assistant dean by July 20 for fall readmissions and by December 1 for spring readmissions.

Even when a withdrawal from the College is voluntary, readmission is not automatic.

Concurrent Registration in the Worcester Consortium

The six four-year colleges, the two two-year colleges and the University of Massachusetts Medical Center in the metropolitan Worcester area form the Worcester Consortium for Higher Education. Through cross registration, joint faculty appointments and curriculum projects, and other efforts, the Consortium explores ways of broadening academic programs for faculties and students as well as expanding continuing education opportunities and community service activities.

Normally, a Holy Cross student may enroll in one course per semester at a Consortium institution provided the course has been approved by the appropriate department chair and by the Registrar at Holy Cross. In special circumstances, a student may be permitted to enroll in two Consortium courses in one semester provided that approval has been granted by the dean of the College. Written application for this approval is filed in the office of the assistant dean.

Intersession courses taken at institutions belonging to the Worcester Consortium for Higher Education may be taken only for personal enrichment. They will not be entered on the Holy

Cross transcript.

A course taken at a Consortium institution must grant a minimum of three semester credits in order to be counted as one of the 32 semester courses required for graduation. The College will record on the transcript the number of credits assigned to the course by the Consortium institution.

The College reserves the right to withhold permission to attend a Consortium institution if the calendar of the institution differs substantially from the calendar of Holy Cross, thus making it impossible for a student to complete graduation and/or course requirements by the date stipulated by the College.

Summer Session Courses

Summer session courses may be used for two purposes: (a) for enrichment (as with the fifth course during the academic year); (b) to remove course deficiencies. The following policies are in effect with regard to summer session courses:

1. Summer session courses taken for the purpose of enrichment or to remove course defi-

ciencies must be approved in advance by the appropriate department chair.

Summer session courses may not be used to advance in course or to remove a subsequent course deficiency.

3. Only grades of C or better, earned in summer session courses at an accredited institution and approved in advance by the appropriate department chair, will be accepted by the College.

4. Summer session courses accepted by the College will be recorded on the student's permanent transcript and included in the calculation of the cumulative average, for all purposes other than the award of graduation honors.

Transfer of Credit

Upon receipt of an official transcript, acceptance of work done at other institutions will be affirmed promptly in writing as closely as possible to the time of readmission, or of admission to advanced standing or advanced placement with credit. All such courses, credits, grades and quality points will be entered on the record at the time of acceptance or as soon thereafter as possible, contingent upon the receipt of the official transcript from the other institution. No renegotiation of such acceptances will be made after academic work has begun at Holy Cross. Such transferred credits will be included in the calculation of the student's average, except for the determination of semester or graduation honors.

Transcript of College Record

An official transcript of the College record will be issued by the Office of the Registrar only with the written consent of the student. A transcript is official when it bears the impression of the seal of the College and the signature of the Registrar of the College. The transcript fee is one dollar per copy.

An official transcript may be withheld by appropriate College officials in cases where some

financial or other obligation remains unresolved.

Directory Information and Release of Information

The items listed below are designated as "Directory Information" and may be released at the discretion of the institution. Under the provisions of the Family Educational Rights and Privacy Act of 1974, as amended, students have the right to withhold the disclosure of any or all of the categories of "Directory Information." Written notification to withhold any or all of "Directory Information" must be received by the Registrar within one week of the fall registration of each academic year.

Categories: The student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees, honors and awards received, and the

most recent previous educational agency or institution attended by the student.

A request to withhold any or all of the above data in no way restricts internal use of the material by the College. Unless a student notifies the College in writing to the contrary, the College considers all students to be dependents of their parents. In compliance with the Family Education Rights and Privacy Act of 1974, as amended, the College reserves the right to disclose information about dependent students to their parents without the students' written consent.

Privacy of Student Records

The Family Educational Rights and Privacy Act of 1974, as amended, gives students and former students certain rights, consistent with the privacy of others, to review records, files, and data about them held on an official basis by the College. The Act also gives students and former students a right to challenge the content of those records, files, and data which they believe are inaccurate, misleading, or otherwise in violation of their privacy and other rights.

Individuals may directly request review of the records maintained about them from the appropriate offices. Any challenges to the content of the records, files, and data that cannot be

resolved directly should be made in writing to the office of the Vice President.

Information about students and former students assembled prior to January 1, 1975, under promises of confidentiality, explicit or implicit, will not be made available for review by the con-

cerned students without the written consent of the authors.

The college will release academic information on students to those college committees charged with the selection of students for college and national honor societies. Written notification to withhold disclosure of such information must be received from the student by the Office of the Registrar within one week of the fall registration of each academic year. Further information about this issue may be obtained by contacting the Office of the Vice President.

Honor Societies

(Consult the Student Handbook for fuller descriptions and academic requirements.)

Alpha Kappa Delta — the national honor society in sociology is an affiliate of the American Sociological Association and awards recognition to high scholarship in sociology.

Alpha Sigma Nu — an international honor society with chapters in Jesuit colleges and universities throughout the world, which honors students who distinguish themselves in scholarship, loyalty and service.

Omicron Delta Epsilon — the national society in economics that selects as members students

who have distinguished themselves in the study of economics.

Phi Alpha Theta — the national honor society in history, devoted to the promotion of the study of history by the encouragement of research, good teaching, publication and the exchange of learning and thought among historians.

Phi Beta Kappa — the national honor society of liberal arts and sciences whose members are elected from the junior and senior classes primarily on the basis of broad cultural interests, scholarly achievement and good character.

Phi Sigma Iota — the national honor society that recognizes outstanding ability and attainment in Romance languages and literatures.

Phi Sigma Tau — the national honor society for philosophy that awards distinction to students

having high scholarship and personal interest in philosophy.

Pi Mu Epsilon — the national honor society in mathematics that promotes scholarly activity in mathematics by electing members on an honorary basis according to their proficiency in mathematics.

Psi Chi — the national honor society in psychology and an affiliate of the American Psycho-

logical Association that seeks to nurture student involvement in psychology.

Sigma Delta Pi — the national honor society in Spanish that honors those who seek and attain excellence in the study of the Spanish language, literature and culture.

Sigma Pi Sigma — the national physics honor society that seeks to recognize high scholarship in physics.

Annual Awards

(Consult the *Student Handbook* for fuller descriptions.) Senior Competition

The Beethoven Prize awarded to a senior for the best historical or analytical essay on music or for an original composition.

The Joseph C. Cahill Fund awarded to a graduating senior majoring in Chemistry.

The Frank D. Comerford Medal for excellence in public speaking.

The Flatley Gold Medal for proficiency in philosophy.

The Rev. John W. Flavin, S.J., Award in Biology, presented to a senior biology major for excellence in scientific achievement, significant humanitarian service or contribution to the vitality of the Biology Department and the College.

The Dr. Marianthi Georgoudi Memorial Award to the outstanding Psychology senior as judged by the faculty of the Psychology Department. This award is in memory of Dr. Georgoudi, who

had been a member of the Holy Cross Psychology Department.

The Rev. William F. Hartigan Medal for the best essay on a subject in religion.

The Holy Cross Club of Worcester Prize for outstanding scholastic achievement by a Worcester area senior.

The Edward V. Killeen Jr. Prize for general excellence in chemistry throughout the bachelor of arts premedical course.

The Rev. George A. King, S.J. — Richard J. Keenan Memorial Award for proficiency in political science.

The John C. Lawlor Athletic Scholarship Medal for the best student and athlete throughout the college course.

The Gertrude McBrien Mathematics Prize for proficiency in mathematics.

The George B. Moran Award for scholarship and leadership in school activities.

The Nugent Gold Medal for general excellence in physics.

The John Paul Reardon Medal and Award was established in 1985 by John Paul Reardon, former faculty member, in memory of the late Rev. J. Gerard Mears, S.J. This Medal and Award is given annually to a senior for excellence in Studio Art.

The Varsity Club Norton Prize or Medal for an athlete in the A.B. curriculum.

The Wall Street Journal Student Achievement Award to honor the student who has contributed most significantly in scholarship, enthusiasm and/or service to the Economics Dept. Junior Competition

The Rev. John F. Redican Medal for a junior who may not have the highest grade but who makes an outstanding contribution to the quality of intellectual life.

Sophomore Competition

The Teresa A. Churilla Sophomore Book Award in Biology in memory of Teresa A. Churilla, a Biology major, who met her death in a skiing accident in her sophomore year, to a sophomore of Biology who best exemplifies the ideals of intellectual curiosity, academic experience and scientific promise that characterized Teresa.

The Mrs. Kate C. Power Medal for the highest ranking student in the sophomore class.

Freshman Competition

The Ernest A. Golia, M.D., Book Award to a Freshman non-Classics major.

The Joseph J. O'Connor Purse for debating.

Competition for All Students

The Elias Atamian Family Book Award to a student who has excelled in Middle Eastern Studies.

The Bellarmine Gold Medal for the best historical essay on Colonial America.

The Bourgeois French Prize for the best essay submitted during the academic year on a subject relating to the culture and history of the French and their descendants in the United States. The Nellie M. Bransfield Award for excellence in elocution among the undergraduates.

The Phillip A. Conniff, S.J. Prize for the student attaining the highest mark in the study of any of the Latin classics.

The Crompton Gold Medal for the best scientific essay or research paper submitted during the school year. Awarded on a rotating basis among the departments of biology, chemistry and physics.

The John J. Crowley Purse for the best essay on a religious, literary, historical, economic or scientific subject.

The Patrick F. Crowley Purse for proficiency in oratory and debating.

The John J. Cummings, Jr./BAI Award for the best student essay or research paper submitted annually on a subject relating to financial institutions. Medal and cash prize.

The Devalera Purse for the best essay on a subject taken from Irish history.

The Fallon Debating Purse founded in 1901 by the Rev. John J. Fallon of the class of 1880.

The Flaherty Gold Medal for the best historical essay submitted during the academic year on a subject selected by the faculty.

The Edna Dwyer Grzebien Prize for a student proficient in modern languages.

The Rev. Robert F. Healey, S.J. Greek Prize to a student who has demonstrated excellence in Classical Greek. The Walter Gordon Howe Award for excellence in percussion performance. The Monsignor Kavanaugh Medal for the best original essay on some phase of Catholic art or Christian archeology.

The William E. Leahy Award in memory of William E. Leahy of the class of 1907, to the outstanding debater in the B.J.F. Debating Society. This memorial prize consists of a medal and a cash award of \$100.00.

The Leonard Award for proficiency in oratory, debating or like competition.

The Markham Memorial Prize in memory of James and Honora Hickey Markham, a medal and a cash award for the best essay in a competition administered by the department of Philosophy.

The Leonard J. McCarthy, S.J. Memorial Prize for the best essay in the criticism of English or

American Literature.

The McMahon Historical Prizes for the best essays on the history of the Catholic Church in New England.

The Purple Purse of \$25 for the student contributing the best short story to *The Purple*.

The James H. Reilly Memorial Purse for the student contributing the best poem or short story to The Purple.

The Freeman M. Saltus Prize for excellence in writing essays on labor or economics.

The Strain Gold Medal for the best essay submitted during the academic year on a subject taken from the field of philosophy.

Prestigious Awards

The Graduate Studies Committee recommends students for the various prestigious awards (Fulbright-Hays, Marshall, Mellon, Rhodes, and Watson). Materials concerning these and other awards are available from the Office of the Senior class dean.

Students should begin planning for these competitions well before the beginning of senior year when nominations are made. Faculty should encourage students to develop the necessary projects, research initiatives, etc., which will serve as the underpinnings of a finished proposal. This should happen during the first three years. Interested students may meet with the class dean and use the resources of the dean's office to assist in determining the suitability of their proposals.

Interviews are held and nominations made in the first month of the academic year. Seniors interested will meet with the Committee on Graduate Studies for those awards which need an institutional recommendation. Faculty members are invited to recommend students to the

attention of this Committee.

Special Academic Programs

For Students Interested in the Health Professions

The premedical and predental program at Holy Cross has maintained an excellent record in preparing students for entrance to professional schools. A premedical or predental student may enroll in any major program, except accounting, and fulfill all of the requirements for medical or dental school admission at the same time. A student should select a major which corresponds to his or her qualifications and interests and not assume that a science major is expected of premedical students. He or she is guaranteed admission to courses which fulfill the science and math requirements, which are listed below. Many science majors will find that these requirements are fulfilled as they complete their major course requirements.

> Chemistry — 4 semesters Biology — 2 semesters Mathematics — 2 semesters Physics — 2 semesters English — 2 semesters

All premedical and predental students must have successfully completed a secondary school course in chemistry. Admission to the program is very selective because of the large numbers of students who are interested.

The College has a premedical and predental advisor to assist all students planning careers in the health sciences.

For Students Interested in Law

In accordance with the current recommendations of law school faculties, Holy Cross encourages prelaw students to choose any major which suits their talents and interests. While there is no established prelaw curriculum as such, students are urged to include in their four years courses which develop the following skills: comprehension and expression in words, critical understanding of the human institutions and values with which the law deals, and creative power in thinking.

Perhaps the most important skill for prelaw students is the effective control of oral and written English. To this end courses in language composition and rhetoric are strongly recommended. At the same time, any course which trains the student to observe accurately and think objectively is invaluable.

For the details of law school admission as well as advice on general questions, the prelaw advisor should be consulted.

For Students Interested in Graduate Schools of Business and Management

Experience has shown that an excellent preparation for graduate schools of business and management is a sound, rigorous liberal arts program. The student may major in virtually any field. Discussion with several graduate schools of business and management indicates that it is strongly advisable that a liberal arts student have, in addition to the major, one and preferably two years of economics, a course in accounting, one year in differential and integral calculus, plus a year, if at all possible, in applied mathematics. At least an introductory computing course is strongly recommended.

As with law, the student should have developed an in-depth ability to use the English language in its written and spoken forms. While business and management schools usually do not set down these courses as actual requirements, they recognize them as strongly desirable.

Preparation for Graduate Study

Most students continue their studies beyond college. Professional studies, various areas of academic graduate study, programs in business management and newer fields such as urban affairs attract more students each year. More than 50 percent of recent classes began some form of

graduate or professional study after fulfilling other obligations.

There is a special library in the Counseling Center and Career Planning office to provide information about graduate and professional studies. Catalogs of many American graduate programs and many foreign institutions may be consulted there. There is also a selection of excellent guides to post-baccalaureate study. Within each of the academic departments, one faculty member is designated as the advisor or resource person concerning graduate study in that area.

Junior Year Abroad

Sophomores are eligible to apply for the Junior Year Abroad program. A student's application is submitted to the Study Abroad Office and reviewed by the Study Abroad Committee. Per-

mission is granted for study at a number of overseas programs.

Participation in this program normally is limited to students with at least a B average (3.0 QPI) or to students with equivalent qualifications. If students intend to take courses abroad in a language other than English, they must complete two years of courses in that language at Holy Cross before going abroad. Students should expect to be questioned in that language and to demonstrate a reasonable competence in understanding and speaking it at their interview by the Study Abroad Committee.

A background of courses that includes the selected country's history, literature, fine arts and philosophy will be a positive point toward approval of study abroad. Ordinarily, participation in the program begins in the fall semester and lasts for a full academic year. Although students may be allowed to study abroad for only one semester, the Study Abroad Committee reserves the right to decide the semester in which the student can study overseas.

Credits and quality points earned in the program are included in all calculations of academic

averages, including those which determine semester or commencement honors.

Reserve Officers Training Program

All Holy Cross students are eligible to apply for and participate in the Navy ROTC program. It prepares students to become officers in the Navy and Marine Corps, the Naval Reserve, and the Marine Corps Reserve. The Navy ROTC program provides stipends and financial assistance, including full scholarships to qualified midshipmen. Detailed information regarding the ROTC program can be found elsewhere in this catalog under Courses of Instruction and under Financial Aid.

Worcester Consortium for Higher Education, Inc.

Admission to Holy Cross means availability to the nine institutions of the Worcester Consortium for Higher Education, Inc. Students of the College may participate in special educational, cultural and social endeavors provided by the Consortium. The member institutions, all located in the Worcester area, organized in 1967 to broaden their activities through cooperative interchange. Specialized courses are available for credit away from the home institution under a system of cross registration. Participating institutions are: Anna Maria College, Assumption College, Becker Junior College, Clark University, College of the Holy Cross, Quinsigamond Community College, Worcester Polytechnic Institute, Worcester State College, and University of Massachusetts Medical Center.

In addition to the nine colleges, a group of associate organizations participate with the Consortium in providing further enrichment to college curricula. These include the American Antiquarian Society, Craft Center, International Center, New England Science Center, Old Sturbridge Village, Worcester Art Museum, Worcester Foundation for Experimental Biology, Worcester Historical Society, and the Worcester County Horticultural Society.

The 3-2 Program in Engineering

Holy Cross offers a cooperative, five-year, dual degree program for students who are interested in combining the liberal arts and sciences with engineering. Students enrolled in this program spend three years as full-time students at Holy Cross and two years as full-time students at Columbia University in New York City, Dartmouth College in Hanover, N.H., or Washington University in St. Louis.

At the conclusion of this program, students receive both a bachelor of arts degree from Holy Cross and a bachelor of science degree in engineering from the appropriate institution. Students interested in this program are advised to major in mathematics or a physical science at Holy Cross, since they must complete at least one year each of physics and chemistry and two years of mathematics before transferring to the engineering program. They must also demonstrate proficiency in one computer language in order to properly prepare for the engineering courses.

Any student who fulfills these requirements with a B average is guaranteed admission to Columbia, Dartmouth or Washington. The student pays tuition to Holy Cross for the first three years of enrollment and to the second institution for the last two years. Students are eligible for financial aid in accordance with the financial aid policy of the institution at which the student is currently paying tuition.

Students who wish to enter this program are not required to apply until the beginning of their junior year. However, interested students are urged to consult with the 3-2 advisor as early as possible in their college career in order to properly plan their courses. Further information is available from the 3-2 advisor.

The Office of Special Studies

Martha A. Crunkleton, Ph.D., Director

Gary P. DeAngelis, Ph.D., Associate Director

Diane Bell, Ph.D., Henry R. Luce Professor of Religion, Economic Development and Social Justice

David M. Hummon, Ph.D., Director, Interdisciplinary Studies

Theresa M. McBride, Ph.D., Director, Honors

David J. O'Brien, Director, Peace Studies

Laurie Cozad, M.S., Associate Director, International Studies

Stephen C. Ainlay, Director, Gerontology Studies

The Office of Special Studies promotes interdisciplinary study and offers a variety of innovative approaches to education that encourage the intellectual growth of Holy Cross students. This department constantly seeks to create new, exciting opportunities for students. Current programs include:

Interdisciplinary Courses

Each year Special Studies sponsors a number of interdisciplinary and experimental courses, which are primarily small seminars. These courses offer new methods of teaching and ways to define and organize subject matter, respond to students' special interests, and introduce new areas of study into the College curriculum.

Seminars offered recently have included Black Literature; Society and Culture in Depression America; Religions of China and Japan; The Quest for Justice; Religions in America; Introduction to Women's Studies; Islam and Politics; and Introduction to the Arts of Asia. New course listings are published twice a year, with new seminars developed based on student and faculty interest.

Interdisciplinary Studies Program

The Interdisciplinary Studies Program was created in 1975 with the assistance of two successive grants awarded to the College by the National Endowment for the Humanities. It provides faculty from two or more disciplines the opportunity to work together on common themes, periods or issues in a two-course sequence. It affords students an opportunity for in-depth investigation of a particular topic, while becoming self-conscious about the ways that various disciplines approach a common subject.

Through the Interdisciplinary Studies Program, students may work in a pair of linked courses.

The courses are offered for both first-year and upperclass students each year.

College Honors Program

Open to highly qualified students at the end of sophomore year, the Honors Program brings together students from all majors for two small seminars, with outstanding faculty members, on topics outside the students' major fields; two semesters of thesis writing in senior year; and the Junior Colloquium on interdisciplinary topics and Senior Research Seminar, in which thesis writers present their research. Usually, admission to the Honors Program is limited to 25 students from each class year. Students design individual plans of study in consultation with the director of the program. Students must complete two advanced courses during their junior and senior years from among those designated by the director. These may be selected from among the following:

a) Honors Seminars, open to Honors, non-majors only, with an enrollment limited to 10

students. Independent research, papers and oral presentations are emphasized.

b) Specially designated Interdisciplinary Studies Program Sequences, open to Honors juniors and seniors and other upperclass students with permission of the instructor. Enrollment is limited to 15.

Junior Honors Colloquium: The colloquium provides an equivalent experience for juniors in the Program. It is interdisciplinary and involves the participation of both Holy Cross faculty and invited guests. (2 credits)

A Senior Honors Thesis: Each Honors student devotes one quarter of his or her time during two semesters to a directed research project, usually in his or her major field. The project may begin in the spring term of the junior year. The thesis is read by one or two faculty members in addition to the advisor and is defended by the student in an oral presentation. (4 credits each semester)

Senior Thesis Seminar: All seniors are required to take the thesis seminar which focuses on student research. The seminar is chaired by the Honors Program Director, with the participation of thesis advisors. (2 credits)

Henry R. Luce Professor of Religion, Economic Development and Social Justice

Diane Bell joined the faculty of Holy Cross as the Henry R. Luce Professor of Religion, Economic Development and Social Justice in January, 1989. This endowed chair, the first at the College, is supported for an initial five-year period by a \$450,000 grant from the Henry R. Luce Foundation and will later be underwritten by the College.

Professor Bell, a social anthropologist, has undertaken extensive work with indigenous peoples in Australia. She brings to the Luce Professorship a combination of academic training and field experience; social-scientific expertise in the study of religion; a practical engagement in social justice projects; and a broad knowledge of economic development theory and its religious and political impact on fourth-world peoples.

Through faculty seminars, interdisciplinary courses, public lectures and comparative research projects, the Luce Professor offers a program to focus the College's attention on and foster a critical awareness of the roles that religion plays in affecting forms of economic development and conceptions of justice in different cultures.

Center for International Studies

After several years of planning, the International Studies Program was established at Holy Cross in 1985. In 1988, responding to the ever-increasing degree of interest and the tremendous growth of the curriculum, the International Studies Program evolved into the Center for International Studies. The Center is inter-departmental in structure, which allows our students not only to be exposed to various viewpoints and teaching styles, but also to construct a program of study that reflects their individual interests. In addition to sponsoring activities such as the Global Issues Lecture Series and various cultural events throughout the year, the Center works with independent groups like the International Affairs Forum and the Interdisciplinary Peace Studies

International Focuses — Within the Center for International Studies are five focus areas: Asian Studies, Latin American Studies, Middle Eastern Studies, Russian Studies, and Global Perspectives. Drawing upon the resources of several Holy Cross departments and fellow members of the Worcester Consortium for Higher Education, the multidisciplinary focus areas allow the student to develop a specialized competence within a broader international framework. The following represents a partial listing of courses offered by each of the five focus areas.

Russian Studies — Russian 161: Russian Short Story; Russian 162: Russian Drama; History 152: Russia in the 20th Century; History 209 (Colloquium): Reform and Revolt in Imperial Russia; Special Studies 197: Images of War and Revolution in 20th Century Russia; Russian Language: Elementary, Intermediate, and Advanced.

Asian Studies — Special Studies 20: Introduction to Asian Culture; History 187: Revolutionary China; Religious Studies 260: Mystics and Zen Masters; Economics 121: Economic Development of Modern China; Chinese Language: Elementary, Intermediate, and Advanced.

Middle Eastern Studies — Special Studies 139: Islam and Politics; Special Studies 144: U.S. and the Middle East; Political Science 257: Politics of Development; Religious Studies 11: Prophetic Religious Traditions; *Political Science 264*: Government and Politics of the Middle East.

Latin American Studies — History 210: Gender and Society in Latin America; Sociology 210: Social Change in Latin America; History 77: History of Latin America I, II; SEL 242: Central American Literature; History 79: Revolution and Reform in 20th Century Latin America; Spanish Language: Elementary, Intermediate, and Advanced.

Global Perspectives — Economics 207: International Trade Theory; Music 52: World Music; Political Science 275: International Political Economy; Political Science 335: The U.S. and the Mediterranean; Naval Science 45: Evolution of Warfare.

International Studies Concentration

Students with an interest in international studies may construct a coherent program of elective courses to supplement their major. The International Studies concentration requires that students complete a minimum of six courses, three of which are to reflect a particular focus. (This focus might be regional, such as Latin America, Asia, Russia, or the Middle East, or functional, such as Global Perspectives.) Students must also fulfill the concentration's foreign language requirement by taking one semester of a language beyond the intermediate level. Students are eligible to become International Studies concentrators at any time until the end of the first semester of their junior year.

The Center for International Studies offers both academic and career counseling, sponsors student delegations to conferences and international programs, and provides an International Resource Room where students have access to international publications, are invited to meet with visitors from other countries, and are encouraged to participate in informal debates, brownbag lunch seminars, and events such as international career day.

Interdisciplinary Peace Studies Group

Founded in 1981, this group of students and faculty organizes extracurricular educational programs dealing with issues of warfare, arms control, conflict resolution and international order. In addition to presenting an annual series of public lectures, the IPSG sponsors films and debates, and encourages curricular development in peace studies.

Peace and Conflict Studies Concentration

The concentration in Peace and Conflict Studies is a multidisciplinary program for students who wish to complement their major field of study with courses focussed on peace, conflict, justice and human dignity. The courses offered in the concentration, and the faculty who teach them, raise crucial challenges of the contemporary world. Concentrators are expected to take an introductory, team-taught course, three elective courses, and to complete a research project or internship. The choice of electives and projects arises from the student's interests and major. The program provides students the opportunity to develop the knowledge and skills of effective citizenship in the nuclear age.

African-American Studies Concentration

The Office of Special Studies is completing the planning for this concentration during 1990-91. Some courses for the concentration will be offered during 1990-91, and the entire concentration will be established in the curriculum in 1991-2.

Women's Studies Concentration

The Office of Special Studies is completing the planning for this concentration during 1990-91. Some courses for the concentration will be offered during 1990-91, and the entire concentration will be established in the curriculum in 1991-92.

Multidisciplinary Majors

The Office of Special Studies approves and administers student-designed programs that combine studies in more than one academic discipline. These programs may focus on area studies or cross-disciplinary topics. A multidisciplinary major must involve at least two disciplines and fall within the competence of the College faculty. The following guidelines are offered to assist students in preparing multidisciplinary major proposals. Conceptualizing the major is the chief task of the student. This requires more than the bringing together of courses related to a particular topic. Plans should define a systematic body of knowledge and demonstrate a coherent progression of study.

The student should present a written proposal for the major no later than the beginning of the junior year. This proposal must include a statement of intellectual rationale, an outline of courses already taken, a plan of proposed courses, and an argument for the proposed course of study. Only students with strong academic records at the college may offer proposals.

The proposal should be written in consultation with the Director of Special Studies and two faculty members based in departments related to the proposed major. Letters of support should be secured from those faculty members who have been consulted on the plan and are willing to serve as program advisors.

Upon the unanimous recommendation of the advisors and the Director of Special Studies, the proposal will be considered by the Committee on Special Studies. If the plan is approved by that committee, the faculty sponsors and the Director will serve as a permanent advisory committee responsible for approving all changes in the major plan.

Academic Internships

Local Program — Off-campus field work provides an alternative to traditional instruction and the opportunity for students to demonstrate imagination and resourcefulness. Internships offer opportunities for educational growth, the development of special skills, the assessment of personal commitments and the exploration of potential careers. Internships are available in health and education, law and business, journalism, social service, state and local government, scientific research and cultural affairs. Students may design their own programs, in consultation with faculty and staff from the Office of Special Studies, and receive academic credit for these internships. Application deadlines are announced each semester.

Washington Semester — For advanced students, special internships are available in Washington, D.C. These are full-semester projects that offer qualified students an intensive program combining professional experience with academic research. Applicants must be well advanced in their major studies and be willing to commit extra time and effort to a demanding program. Admission to the Washington Internship Program is highly competitive. Washington interns have worked in Congressional offices, federal agencies, research groups, and public interest organizations. Application deadlines are announced each semester.

Fenwick Scholar Program

This is one of the highest academic honors the College bestows. The program, begun in 1966, is open to seniors upon nomination by the departments. From among those nominated, the Committee on Special Studies chooses the Fenwick Scholar. The Scholar is free to design, with an advisor, the academic program that will complete his or her undergraduate education in the most challenging and profitable way. Scholars are free to take courses or not, to do independent study, or to undertake a combination of courses and independent study. In selecting the Scholar, the Committee on Special Studies seeks a student who will put this unusual opportunity to best use. At the end of the senior year, the Fenwick Scholar must make a public presentation of his or her work as a demonstration of substantial intellectual accomplishment. The application deadline is late March of the junior year.

Gerontology Studies Program

The Gerontology Studies Program is a cooperative arrangement among Worcester colleges for students interested in the study of aging. The main elements of the program are courses, internships and career planning; successful completion of the program entitles the student to a gerontology certificate. Established to encourage students with an interest in the aging process, the problems of older people, and the delivery of services to the elderly, the program draws on the strengths of the Consortium institutions. Students may elect a wide range of courses from a variety of disciplines in order to prepare for graduate study or for work in the field of aging. Information on all aspects of the program is available from the faculty Gerontology Studies advisor.

Student Grant Program

Funds are available through the Office of Special Studies to support student participation in academic programs and in research projects. Students may apply also for assistance in attending national, regional and state academic meetings.

Marshall Memorial Fund

Through a recent bequest to the College, the James J. Marshall and Ellen O'Connor Marshall Fund has been established to encourage creative intellectual involvement of students and faculty with the Worcester community. A student might request financial support for research on any aspect of the city, historical, economic, cultural or religious. Service projects involving Holy Cross students directly with members of the community for mutual understanding also are encouraged. Funds are allocated, as well, to help faculty members to undertake research, offer programs, or to design courses related to the city of Worcester.

Semester-Away Program

Students who wish to engage in academic work not available at Holy Cross may submit proposals for a semester or a year of study at another institution in the U.S. or Canada. Students also may apply for special programs of limited duration at other colleges or universities when these programs are directly related to the student's major.

Biology

William R. Healy, Ph.D., Professor George R. Hoffmann, Ph.D., Professor and Chair Banadakoppa T. Lingappa, Ph.D., Professor Susan L. Berman, Ph.D., Associate Professor Robert I. Bertin, Ph.D., Associate Professor Mary Lee S. Ledbetter, Ph.D., Associate Professor Kornath Madhavan, Ph.D., Associate Professor Peter Parsons, Ph.D., Associate Professor Kenneth N. Prestwich, Ph.D., Associate Professor The biology curriculum is designed to acquaint students with the broad scope of the biological sciences at several levels of functional organization. Its courses therefore include molecular, cellular, organismal, ecological and evolutionary aspects of biology. Departmental course offerings are also intended to prepare biology majors for advanced study in graduate or professional schools or for other professional opportunities. The department believes that an informed understanding of biological principles is an important aspect of a liberal arts education, and it therefore offers diverse courses to introduce non-majors to basic biological concepts and to explore the implications of modern biology for various social and philosophical issues.

Biology majors are required to take Biology 31 and 32 (Introduction to Biology with laboratory) and at least six other courses (four with laboratory) from the department's total offerings. They also must complete Chemistry 1, 21, 22, 31 (all with laboratory); two semesters of mathematics; and Physics 21, 22 (both with laboratory). Biology students normally complete

the chemistry sequence before the beginning of their junior year.

Since study beyond the undergraduate level is typically specialized, the department encourages a balanced approach to the discipline by requiring its majors to include among their six upper-division required biology courses one course from each of the following broadly defined areas: (1) molecular and cellular biology, (2) organismal biology, and (3) ecology and evolutionary biology.

In addition to formal course work, the department affords qualified students an opportunity to do research (Biology 201, 202) in association with faculty members in their research laboratories. Opportunities also exist for students to pursue individual interests in faculty-directed readings courses based on the biological literature (Biology 205, 206). Students in the college Honors Program must elect Biology 207, 208.

Biology 14, 15 — Topics in Biology Both semesters

Consideration of diverse subjects in the biological sciences. Course format and subjects covered vary from year to year; the specific subject matter for each course is announced at preregistration. Recently taught topics include human evolution, organismal biology, birds, cancer, exercise physiology, environmental biology, and genetic engineering. Intended for non-majors. Four credits. *Staff*

Biology 16 — Laboratory Investigations in Biology Both semesters

The diversity of life and life functions will be investigated using an experimental approach. Students will be exposed to descriptive as well as quantitative biology through the use of microscopy, spectrophotometry, chromatography and other methods of modern biology, and they will work on an interdisciplinary laboratory project. Not open to biology majors or premedical students. One lecture and one laboratory per week. Four credits. *Lingappa*

Biology 17 — Perspectives in Biology Spring

Selected topics on the level of biological organization ranging from macromolecules to populations. Emphasis is placed on the theme of animal behavior including examination of the physical basis of behavior, ecological implication of behavior and the evolution of social behavior. Preference is given to psychology majors. Four credits. *Healy*

Biology 20 — General Biology I Fall

Fundamental principles of biology and the diversity of life studied at all levels of organization. Intended for junior premedical students majoring in subjects other than biology. Three lectures and one laboratory period. Prerequisites: introductory and organic chemistry. Five credits. Ledbetter

Biology 21 — General Biology II Spring

A continuation of Biology 20. Three lectures and one laboratory period. Prerequisite: Biology 20. Five credits. *Berman*

Biology 31 — Introduction to Biology I Fall

Selected topics emphasizing basic biological organization from molecules to ecosystems. Designed for biology majors, this course is prerequisite for upper-division courses in the department. Three lectures and one laboratory period. Five credits. *Healy and Madhavan*

Biology 32 — Introduction to Biology II Spring

A study of the structure, function and diversity of plants and invertebrates. Three lectures and one laboratory period. Open to biology majors and prospective biology majors. Five credits. *Bertin and Hoffmann*

Biology 61 — Genetics Fall

The mechanisms of heredity and genetic analysis. Topics include Mendelian inheritance, chromosome structure and function, genetic mapping, molecular genetics, mutation, genetic regulation, and population genetics. Laboratory exercises emphasize genetic principles through experimental work with bacteria, fungi, vascular plants, and fruit flies, and interpretive studies in human genetics. Five credits. *Hoffmann*

Biology 66 — Cell Biology Spring

The structure and function of cells of higher organisms, both animal and plant, are considered along with aspects of metabolism and enzyme action. If time permits, special topics such as growth regulation or function of the immune system may be discussed according to student interest. The critical evaluation of experimental evidence is emphasized. Prerequisite: One semester of organic chemistry. Three lectures and one laboratory period. Five credits. *Ledbetter*

Biology 70 — Histology Alternate years in spring

A study of the microscopic and sub-microscopic structure of vertebrate tissues and organs. Three lectures and one laboratory period. Five credits. *Madhavan*

Biology 75 — Biological Statistics Alternate years

An introduction to the handling, analysis and interpretation of biological data. Topics include descriptive statistics, probability distributions, goodness of fit tests, hypothesis testing, analysis of variance, regression and correlation. Three lectures. Four credits. Prerequisites: Biology 31, 32, a semester of college-level mathematics. *Bertin*

Biology 80 — General Ecology Fall

An introduction to the science of ecology. The interactions among animals and plants and their environments are considered at the levels of the individual, the population, the community, and the ecosystem. Three lectures and one laboratory period. Five credits. *Bertin*

Biology 83 — The Theory of Organic Evolution Spring

Analysis of historical development of the modern synthetic theory of organic evolution emphasizing Darwin's theory of natural selection and the controversies that it has generated. The implications of the concept of evolution for other sciences and the humanities are also explored. Four credits. *Healy*

Biology 85 — Sociobiology Fall

Analysis of animal social behavior in terms of evolutionary theory. Emphasis is placed on the contribution of natural selection theory and ecological principles in explaining the evolution of altruism, sex, life history strategies, mating systems and social organization. Four credits. *Prestwich*

Biology 90 — Animal Physiology Spring

A comparative approach to the functioning of cells, organs, and organisms. Major themes are homeostasis, control mechanisms, and adaptation to the environment. Topics discussed

include: excitable and contractile cell physiology, energy metabolism and temperature regulation, respiration and circulation, digestion, water balance, and coordination and control of these systems by neuro-endocrine mechanisms. Three lectures and one laboratory period. Prerequisite: Chemistry 11, 12; Pre/Co requisite Physics 21, 22. Five credits. *Prestwich*

Biology 92 — Immunology Spring

An introduction to the science of immunology. Course content includes the basic structure of the immune system, structure and function of antibodies, immune receptors and messengers, tolerance, hypersensitivity, autoimmunity and immunodeficiency. Three lectures and one laboratory period. Five credits. *Parsons*

Biology 101 — Biochemistry I Fall

A detailed study of the chemistry of biological molecules. Topics include the structural chemistry of the major classes of biological compounds, enzymic and coenzyme catalysis and regulation, bioenergetics, Krebs Cycle, mitochrondial electron transport and photosynthesis. Should be taken in sequence with Biology 102. Prerequisites: Chemistry 1 and 21. Chemistry 22 may be taken concurrently. Four credits. *Parsons*

Biology 102 — Biochemistry II Spring

A continuation of Biology 101. Topics include the chemistry, enzymology and regulation of lipid, protein and carbohydrate metabolism, muscle contraction, DNA replication, transcription, translation. Should be taken in sequence after Biology 101. Prerequisite: Biology 101. Four credits. *Parsons*

Biology 103 — Biochemistry I Laboratory* Fall

This is the laboratory course to accompany Biology 101 and introduces experimental methods for the characterization of biological molecules, including electrophoresis, column chromatography, enzyme kinetics, respiration and photosynthesis. Prerequisite or concurrent course: Biology 101. Two credits. *Parsons*

Biology 113 — Comparative Chordate Morphology Fall

The comparative anatomy of the chordate body with reference to the structure and function of the skeletal, muscular, nervous, respiratory, circulatory, digestive, urogenital and reproductive systems. These systems will be compared among the various vertebrate groups in relation to biomechanics and evolution. Three lectures and one laboratory period. Five credits. Berman

Biology 123 — Microbiology Fall

The origins and development of microbiology, the principles and practice of microbiological methods, the principal types of microbes, microbial metabolism and alternate pathways, and nutrition, growth, genetics, survival and ecology of microbes will be discussed. Laboratory activities focus on pure culture methods and classical and molecular diagnostic procedures. Three lectures and one laboratory period. Five credits. *Lingappa*

Biology 130 — Developmental Biology Alternate years in spring

The early development of eucaryotic organisms will be discussed from a molecular biological point of view. Particular emphasis will be on possible molecular explanations of the major events and processes of classical embryology. The emphasis in the laboratory is on the application of techniques for visualization of gene activity and elucidation of processes like gastrulation, regeneration and metamorphosis. Both plants and animals will be used for these studies. Three lectures and one laboratory period. Five credits. *Madhavan*

^{*}This laboratory course is taken as a fifth course. The course, while figured into the QPI, does not count toward the 32 courses required for graduation.

Biology 141 - Vertebrate Endocrinology Alternate years in fall

The anatomy and physiology of endocrine glands and internal secretion in representative vertebrates. Functional interrelationships of the endocrine organs and cellular effects of hormones and their mechanics of action (receptors, second messenger, etc.) will be emphasized. The functional morphology of the endocrine organs of vertebrates will be compared with that of invertebrates. Four credits. *Madhavan*

Biology 190 — Bioethics Alternate years in spring

The biological background of selected ethical and social issues arising from new advances in biology and a consideration of the morality and feasibility of public policy as they apply to these issues in a pluralistic society. Topics considered include such matters as environmental ethics, evolutionary ethics, reproduction, population control and the evolution of moral systems. Four credits. *Healy*

Biology 201, 202 — Undergraduate Research Both semesters

Individual experimental investigation and associated study of the scientific literature under the direct supervision of a member of the faculty. The number of positions is limited; students contemplating research should make inquiries early in the year preceding the term in which research is to be initiated. Five credits per semester. *Staff*

Biology 203, 204 — Problems in Biology Both semesters

Courses at an advanced level on selected subjects in the biological sciences, accompanied by intensive reading of original scientific literature. Recently taught topics include genetic engineering, advanced ecology, animal behavior, toxicology, and the physiology of movement. Prerequisite: permission of instructor. Four credits each semester. Staff

Biology 205, 206 — Directed Reading Both semesters

An in-depth literature study of an individual topic of interest to the student under the tutorial supervision of a member of the faculty. Prerequisite: permission of instructor. Four credits. Staff

Biology 207, 208 — Honors Research Both semesters

Individual experimental investigation and associated study of the scientific literature under the direct supervision of a faculty member. Students contemplating research should make inquiries early in the year preceding the term in which research is to be initiated. Open to Honors Program students only. Five credits per semester. *Staff*

Chemistry

Paul D. McMaster, Ph.D., Professor
Robert W. Ricci, Ph.D., Professor
Mauri A. Ditzler, Ph.D., Associate Professor
and Chair Michael G. McGrath, Ph.D., Associate Professor
G. Earl Peace, Jr., Ph.D., Associate Professor
Frank Vellaccio, Ph.D., Associate Professor
Richard S. Herrick, Ph.D., Associate Professor
Ronald M. Jarret, Ph.D., Assistant Professor
Alice A. Deckert, Ph.D., Clare Boothe Luce Assistant Professor
Carolyn K. Howard, Ph.D., Visiting Assistant Professor

The Department of Chemistry has traditionally been numbered among the nation's top producers of chemistry graduates certified by the American Chemical Society. The curriculum combines a solid background in fundamental principles and theories of chemistry with hands-

on experience using state-of-the-art laboratory equipment. Introductory courses in General and Organic chemistry are based on a guided discovery approach. Fundamental concepts are first encountered in the laboratory; lecture sessions are used to discuss and elaborate the laboratory experience.

The department strives to improve the verbal and written communication skills of students by emphasizing the importance of clarity in laboratory reports and oral seminars (required of all research students). The required courses have been carefully chosen to reflect these goals while allowing considerable latitude in the choice of elective courses. Some flexibility is allowed for students electing the chemistry major during their sophomore year. Students may take the minimum of three chemistry electives in any semester(s) after their fifth. By arrangement with the chair of the department a student may substitute an upper division course in physics, biology or mathematics for one chemistry elective. A student must obtain a grade of C or better in Chemistry 1 and 21 to continue to Chemistry 22 and 31 or 32. Furthermore, a grade of C or better in Chemistry 22 and 32 is required to continue in the major. The chemistry department offers several academic year research programs for upperclass majors. Summer research opportunities with monetary stipends are available on a competitive basis.

A student not majoring in chemistry who wishes to fulfill premedical requirements or who plans on majoring in biology can begin the chemistry requirements by electing Chemistry 1 and 21 in the freshman year or sophomore year. A grade of C in Chemistry 1 and 21 is the minimum acceptable grade for continuing in the chemistry curriculum. Chemistry 22 and 31 complete the chemistry courses normally taken by biology majors and premedical students not majoring in chemistry.

Courses Required for the Chemistry Major

Freshman Year

Fall

Spring

Atoms and Molecules Analysis I (Math 31)

Organic Chemistry I Analysis II (Math 32)

Organic Chemistry II Analysis III (Math 41) (Recommended)

Sophomore Year

General Physics

Physical Chemistry I
Instrumental Chemistry

Intro to Physical and Analytical Chem Analysis IV (Math 42) (Recommended) General Physics

Junior Year

Physical Chemistry II Analytical Methods Lab* Physical Chemistry Lab*

Senior Year

Physical Chemistry Lab* Chemistry Elective** (100 level course)

Analytical Methods Lab*

2 Chemistry Electives (100 level series)

* Advanced Chemistry Laboratories are taken as overloads.

** Advanced Inorganic Chemistry must be elected if ACS certification is desired.

*** Beginning with the class of 1994, Advanced Inorganic Chemistry will be required for the chemistry major. The minimum number of required chemistry electives will be decreased from three to two.

Chemistry 1 — Atoms and Molecules: Their Structure and Properties Fall

This introductory course leads students to explore in depth the scientific method through the formulation and testing of hypotheses in the laboratory. Laboratory experiments (using modern instrumentation) lead students to discover basic principles, e.g., stoichiometric relationships,

electronic configuration and molecular structure. Lectures explain and expand upon laboratory results. This course assumes no prior background in chemistry and is suitable for students seeking to satisfy the science distribution requirements. It is also the first course in the sequence for science majors and premedical students. Six credits. Staff

Chemistry 21 — Organic Chemistry I Spring

A study of organic compounds from two points of view: the chemistry of the functional groups and modern structural theory and reaction mechanisms. The chemistry of aliphatic hydrocarbons, alcohols, ethers, and alkyl halides is introduced. Nucleophilic and radical substitution, addition and elimination mechanisms are studied in detail. Emphasis is placed on stereochemistry. One four hour laboratory session per week is included. Students learn various techniques of separation and purification of organic compounds in the laboratory. There is an emphasis on one-step synthetic conversions which introduce the reactions to be studied in the lecture course. Prerequisite: Chemistry 1. Six credits. *Staff*

Chemistry 22 — Organic Chemistry II Fall

A continuation of Chemistry 21. Aromatic hydrocarbons, aldehydes, ketones, amines, carboxylic acids and their derivatives are studied. Electrophilic substitution, acyl transfer and carbonyl condensation reactions are developed. The mechanistic implications and synthetic applications of these organic reactions are evaluated. One four hour laboratory session per week is included. Qualitative Analysis and spectroscopic methods are emphasized. Microscale synthetic techniques are included. Prerequisite: Minimum C in Chemistry 21. Six credits. Staff

Chemistry 31 — Introduction to Biophysical Chemistry Spring

Introduces non-chemistry majors to the crucial role played by chemistry in the biological sciences. Laboratory experiments lead students to discover some of the basic principles of physical chemistry, e.g., gas laws, osmotic pressure, heats of reaction, and buffer capacity. Lectures explain or expand upon lab results. Prerequisites: Chemistry 21, 22 (with Caverage or higher); One semester of college calculus is a prerequisite. 6 credits. *Staff*

Chemistry 32 — Introduction to the Principles of Physical and Analytical Chemistry Spring; not offered in 1991

Intended to provide chemistry majors with an introduction to the concepts and instrumentation which will be studied in depth during the junior year. Laboratory experiments emphasize the use of modern instrumentation to probe such topics as gas laws, heats of reaction, the equilibrium state, and chemical kinetics. Lectures explain or expand upon lab results. Prerequisites: Chemistry 21, 22 (with C average or higher), Math 31, 32. Six credits. Staff

Chemistry 41 — Environmental Chemistry Alternate years; not offered in 1990-91

Relates historical and contemporary problems of air and water pollution to both natural and anthropogenic chemical compounds. Sources, sinks and interactions of these compounds are discussed within a framework of the conversion of chemical energy to mechanical or electrical energy. Prerequisite: high school chemistry or permission of instructor. Four credits. *Peace*

Chemistry 43 — Chemistry: Bane or Boon Fall; not offered in 1990

A chemistry elective for non-science majors that examines the impact of chemistry, both good and bad, on our lifestyles and well being. Among topics discussed are dyes, polymers, food additives, fuels, detergents, drugs and agricultural chemicals. Several of the major environmental disasters, i.e., Bhopal, Chernoble, Love Canal, are examined. Prerequisites: High school chemistry or permission of the instructor. Four credits. *McMaster*

Chemistry 44 — Chemistry and Society Both semesters

A course designed to acquaint non-science majors with chemistry as human endeavor and help them acquire some appreciation of the benefits and limitations of science. Readings from the current popular and scientific literature are examined to illustrate the relationships of science to society. Some of the basic concepts and principles of chemistry necessary for an understanding of environmental problems will be considered in detail. Four credits. *Herrick*

Chemistry 45 — The Chemistry and Physics of Matter Alternate years; not offered in 1990-1991 A unique opportunity to learn about the atomic and molecular model of matter through a hands-on approach. The weekly laboratory component gives the student an opportunity to develop and test their own models of molecular structure. In addition, students learn that physics and chemistry are not identical. They gain real insight into the differences in interests, approaches, and laboratory techniques of these two disciplines. Two lectures and one laboratory period per week. Four credits. Ditzler

Chemistry 55, 56 — Physical Chemistry I and II Both Semesters

A study of the basic concepts, principles and methods of physical chemistry. Topics covered include molecular-kinetic theory, thermodynamics, structure and properties of solutions, electrochemistry, quantum theory, kinetics and transport processes. Courses in integral and differential calculus and introductory physics are prerequisites. Eight credits. *Deckert*

Chemistry 57, 58 — Physical Chemistry Laboratory I and II* Both Semesters

This laboratory course is designed to complement Physical Chemistry 55, 56 and to encourage ability in research. In the laboratory students test the more important physical and chemical laws and in doing so acquire the habit of exact chemical techniques and the quantitative interpretation thereof. Experiments in spectroscopy, thermochemistry, electrochemistry, colligative properties, chemical and phase equilibria, kinetics and computer interfacing are performed. One four-hour laboratory per week for two semesters. Both courses must be completed for a tofour credits. Staff

Chemistry 100 — Chemical Thermodynamics Offered Irregularly

The laws of thermodynamics: the study of energy and order-disorder, and their connections with chemical changes and chemical equilibrium, are covered. A systematic study of the first and second laws is followed by development of the chemical potential. Applications of thermodynamics to phase and chemical equilibria, electrochemistry, and solution behavior are discussed. An introduction to molecular thermodynamics principles is also taught. Molecular thermodynamics links the properties of the constituent molecules with the bulk properties of matter. Four credits. *Staff*

Chemistry 101 — Advanced Inorganic Chemistry Spring

Group theory and modern theories of bonding are used to discuss structural and dynamic features of inorganic compounds. The structure and bonding of transition metal coordination compounds are related to various reaction mechanisms. The principal structural and mechanistic features of transition metal organometallic chemistry are studied with emphasis on catalysis of organic reactions. The role of inorganic chemistry in biological systems is also explored. Four credits. Herrick

Chemistry 102 — Advanced Organic Chemistry Offered every other year

Topics of interest from the current organic literature are discussed. Topics chosen in the past have been oxidations, photochemistry, organometallic chemistry, Woodward-Hoffmann Rules, configurational and conformational analysis and the chemistry of phosphorous, boron and sulfur. Prerequisite: Chemistry 56. Four credits. *McMaster*

Chemistry 103 — Advanced Physical Chemistry Offered every other year

Aims to acquaint the student with several selected topics in physical chemistry. The course material will change yearly, depending upon the need of the students and direction of the professor. Topics included in the past have been Molecular Orbital Theory and Woodward-Hoffmann rules; statistical mechanics; biophysical chemistry, thermodynamics, enzyme kinetics, diffusion and sedimentation, molecular spectroscopy and light scattering; and group theory and its chemical consequences. Four credits. *Ricci, Deckert*

Chemistry 104 — Synthetic Organic Chemistry Spring

Provides students of advanced organic chemistry with an understanding of the scope, limitation and stereochemical consequences of selected groups of organic reactions. Individual topics are discussed in the light of specific syntheses taken from the chemical literature. Students are

expected to give a seminar based on a specific synthesis or a general synthetic method. Four credits. McGrath

Chemistry 105 — Instrumental Chemistry Fall

The field of chemical analysis has undergone very dramatic changes within recent years due to rapid advancements in instruments which have replaced classical gravimetric and volumetric methods. This course introduces students to the theoretical and practical considerations which affect the design of modern analytical instrumentation. Instruments covered include those for the study of atomic and molecular spectroscopy, the separation of ions and/or molecules, and the measurement of electrochemical properties. Four credits. *Ditzler*

Chemistry 106 — Undergraduate Investigation in Chemistry Both Semesters

This involves an original and individual experimental investigation with associated literature study in one of the fields of chemistry under the supervision of a member of the faculty. Periodically the students meet with the faculty in seminar. The culmination of all research projects carried out under Chemistry 106 will be a research report in the form of a journal article as well as a seminar to be given during the spring semester. Course credits: Students must register for Undergraduate Investigation as a fifth course on a 'in progress' basis during the fall semester. During the spring semester it should be registered as a fourth course for a letter grade. Four credits. Staff

Chemistry 107 — Analytical Methods* Both Semesters

In this laboratory students acquire first-hand operating experience with the following equipment: atomic absorption, fluorescence, infrared, ultra violet, and visible spectrophotometers and proton magnetic resonance spectrometers; gas and high pressure liquid chromatographs; and electrochemical instrumentation. One four-hour laboratory per week, for two semesters. Both semester must be completed for credit. Four credits. *Ditzler*

Chemistry 108 — General Honors Research Both Semesters

Selection: Students interested in participating in the departmental honors program will be invited to submit applications to the departmental honors committee during the second semester of their sophomore year. The committee will review the student's performance to date and determine whether the student could reasonably benefit from the program. Program: Selected students will consult with each member of the department on research and will submit to the committee three choices for a research advisor. When possible, a student will be given his or her first choice. The student will then conduct with the research advisor an original research project culminating in a research thesis written during the last semester of the senior year. The thesis will be defended before the chemistry faculty. The student will be required to participate in the departmental seminar program. Requirements: Students' records of performance will be evaluated each semester by the committee. Participants whose research or academic performance is inadequate will be dismissed from the program. Participants are expected to maintain an overall QPI of 3.0 and a minimum of a grade of B in major courses. Course credits: Students must register for Honors Research as a fifth course on a "in progress basis" for each semester they participate in the program. During the last semester they will register in Honors Research as a fourth course for a letter grade. Students who successfully complete this program will be graduated with Honors in Chemistry. Four credits. Staff

Chemistry 109 — Spectroscopy Spring

Focuses on chemical structure identification through the interpretation of spectroscopic data. With a concentration on organic molecules, Electronic (UV-VIS), Mass, Vibrational (IR and Raman), and Magnetic Resonance (NMR and EPR) spectra are analyzed. There is an emphasis on NMR spectroscopy (including an introduction to modern techniques) to elucidate molecular structure. The course is conducted with a "problem solving" approach and student participation is expected. Prerequisite: Chemistry 22. Four credits. *Jarret*

Chemistry 115 — Advanced Analytical Chemistry Offered every other year in the Spring Considerations relevant to developing and evaluating an analytical procedure are covered. Students use the current literature to examine recently developed analytical techniques. Ditzler

Chemistry 116 — Natural Products Offered irregularly

The chemistry of selected naturally occurring compounds is discussed. This includes classical methods of structure determination and biogenetic theory. Emphasis is placed on mechanisms of biochemical significance. Prerequisite: Chemistry 22. Four credits. *Vellaccio*

Classics

Deborah Boedeker, Ph.D., Associate Professor John D.B. Hamilton, Ph.D., Associate Professor Kenneth F. Happe, Ph.D., Associate Professor Gerard B. Lavery, Ph.D., Associate Professor Blaise J. Nagy, Ph.D., Associate Professor William J. Ziobro, Ph.D., Associate Professor and Chair Kenneth S. Rothwell, Jr., Ph.D., Assistant Professor Christopher G. Simon, Ph.D., Assistant Professor Ann G. Batchelder, Ph.D., Visiting Assistant Professor Patricia J. Johnson, Cand. Ph.D., Instructor

The curriculum of the Classics Department affords all students the opportunity to study the Greek and Roman sources of Western culture. For the non-major, courses are available in Greek and Roman history, politics, philosophy, religion, archaeology, mythology, and ancient literature in English translation. Courses in Greek and Latin are available on the introductory, intermediate, post-intermediate and advanced levels for all students. It is the aim of the department to provide courses directed toward the cultural development of all students as well as the language skills of its majors.

For the student who chooses classics as a major, the department offers a wide selection of courses, seminars and tutorials intended to provide a liberal and comprehensive view of the ancient world through first-hand contact with the major Greek and Roman authors. The program for majors is designed to develop as rapidly as possible a command of the classical languages, to introduce the student to the technique of textual analysis, and to survey the Greek and Roman worlds through their greatest works of literature. The classics major thus acquires a familiarity with the subtleties and intricacies of inflected languages, an ability for creative expression through the accurate translation of prose and poetry, and a critical knowledge of those texts and institutions that are the roots of Western civilization. In addition, the classroom experience can be enhanced by participation in one of the several year-abroad programs in Greece, Rome or England to which the department subscribes. Recent classics majors have pursued advanced degrees at several of the finest institutions of higher learning in the country, as well as beginning careers in journalism, law, business, medicine and banking, among others.

A minimum of ten courses is required for a major in classics, distributed among Latin, Greek and courses in English which are appropriate to a student's primary interests. To satisfy the minimum requirements of the classics major, a student must demonstrate proficiency in one of the classical languages through one semester of an advanced (author) level course and through the intermediate level of the other language. Students entering the major with advanced classical language training at the secondary level are expected to demonstrate the same minimal level of language proficiency and to complete no fewer than eight semesters in the original languages. Any exceptions to these requirements must be approved by the chair of the department. The maximum number of courses in this major is 14.

The department offers two classics scholarships annually — the Henry Bean Classics Scholarship — to high school seniors with distinguished academic records who plan to major in the classics at Holy Cross. A recipient of a Henry Bean Classics Scholarship is granted full tuition, independent of need. The scholarship is renewable annually provided the student maintains

a satisfactory academic record and continues to be a classics major. Candidates should address inquiries to Chair, Classics Department, Holy Cross College, Worcester, Mass. 01610. The application deadline is February 1.

Latin

Latin 1, 2 — Introduction to Latin Both semesters

A grammar course introducing the student to the Latin language and its literature. Eight credits. Staff

Latin 5 — Intensive Introduction to Latin Both semesters

Latin grammar and a limited amount of reading for students with no previous training in Latin with a view toward preparing the student for Intermediate Latin after only one semester. Four credits. Staff

Latin 6 — Review Latin Fall

A grammar course for students who have had some previous training in Latin and who need only a one semester refresher course before enrolling in Intermediate Latin 1. Four credits. Staff

Latin 13, 14 — Intermediate Latin Both semesters

For students who have completed two years of pre-college Latin or Latin 1 and 2, 5 or 6. This course includes a brief grammar review and selected readings from Latin authors. Eight credits. Staff

Latin 115, 116 — Readings in Latin Both semesters

A survey of Latin Literature from its early remains to the Silver Age. Selected authors are read in the original with analysis and discussion of each text. Eight credits. Ziobro

Latin 120 — Sallust and Livy Alternate years

Extensive readings from the works of Sallust and Livy. Study of the sources and methods of Roman historiography. Four credits. *Nagy*

Latin 121 — Tacitus, Major or Minor Works Alternate years

Concentrates on the *Annales* of Tacitus. Consideration is given to the *Historiae*, *Agricola* and *Germania*. Four Credits. *Lavery*, *Nagy*

Latin 122 — Cicero's Speeches Alternate years

Selected orations of Cicero are read in the original. Emphasis is placed on rhetorical analysis and interpretation of historical and political developments of the first century B.C. Four credits. Staff

Latin 123 — Roman Letter Writers Alternate years

Selected letters of Cicero and Pliny are read in the original Latin. Supplementary reading of selected Senecan letters in English. Historical background. Development of letter writing as a literary form. Four credits. *Lavery*

Latin 124 — Juvenal Alternate years

A detailed study of selected satires of Juvenal. Although emphasis is placed on the literary analysis of satire, some attention also is given to Juvenal's *opera* as a source of understanding of first century A.D. Rome. Four credits. *Hamilton*

Latin 125 — Petronius Alternate years

A textual analysis of the *Satyricon* and its reflection of the reign of Nero and social, religious, and political developments in the first century A.D. Selections from Seneca and Suetonius are considered as well as the influence of Petronius on later literature and art. Four credits. *Happe*

Latin 134 — Lucretius Alternate years

An extensive examination of the poetic and philosophic message of Lucretius' Epicurean gospel, the *De rerum natura*. Four credits. *Lavery*

Latin 135 - Seneca Alternate years

A study of Roman Stoicism through examination of selected letters and dialogues of Seneca. One Senecan tragedy is included, with attention to the author's use of drama as a vehicle for philosophical indoctrination. Four credits. *Lavery*

Latin 136 — Cicero's Philosophical Works Alternate years

A study of Cicero's position in the Graeco-Roman philosophical tradition through an intensive examination of selections from his essays. Four credits. *Staff*

Latin 143 — Horace Alternate years

Selected poems from the four books of Odes are read in the original. Emphasis is placed on literary analysis and interpretation. In addition, students read a sampling of Horace's other poetic works in the original. Four credits. *Hamilton*, *Nagy*

Latin 144 — Catullus Alternate years

A literary study and analysis of all the poems of Catullus. Four credits. Boedeker

Latin 150 (RS 275) — Early Christian Literature Alternate years

Reading in the original of selected works from the Patristic period. Four Credits. Staff

Latin 153 — Medieval Latin Alternate years

A millenium of Late and Medieval Latin (374-1374), religious and secular. Selected readings from the chronicles, biographies, poems, and satires. Four credits. Staff

Latin 158 - Vergil: Aeneid Alternate years

A study of Vergil's epic with emphasis on its literary artistry. Six books of the poem are read in the original Latin. Four credits. *Boedeker*

Latin 159 — Vergil: Eclogues and Georgics Alternate years

The development of pastoral and agricultural poetry, as exemplified in Vergil's two poetic masterpieces, *Ecloques* and *Georgics*. Four credits. *Boedeker*

Latin 163 — Roman Comedy Alternate years

Selected plays of Plautus and Terence read in Latin combined with a study of Greek sources of Roman comedy. Four credits. Rothwell

Latin 166 — Ovid's Metamorphoses Alternate years

A close examination of the literary artistry of a number of individual stories in the *Metamorphoses*. Four credits. *Johnson*

Latin 167 — Elegiac Alternate years

A study of the elegiac tradition in the Roman poetry of Propertius, Tibullus and Ovid. Special emphasis is placed on the conventions of the love elegy. Four credits. *Staff*

Latin 301-302 — Tutorial Seminar Both semesters

Designed for selected students with approval of professor and department chair. This work may be done for one or two semesters (four or eight credits) and takes the form of either a survey of selected authors or a specialized study of a single author, genre, theme or period. Four or eight credits. Staff

Greek

Greek 1, 2 — Introduction to Greek Both semesters

A first course in the Greek language involving a systematic investigation of Attic or Homeric Greek though a logical and intensive study of grammar, syntax, and vocabulary in the fall semester leading to the reading of selected classical texts in the spring semester. Eight credits. Staff

Greek 5 — Intensive Introduction to Greek (one semester) Alternate years

Greek grammar, covered in one semester, and a limited amount of reading at the end of the course, with a view toward preparing the student for Intermediate Greek. Four credits. *Hamilton*

Greek 13, 14 — Intermediate Greek Both semesters

Readings and textual study of Greek prose and poetry. Offered mainly for students who have completed Greek 1 and 2 or 5 or have had two years of pre-college Greek. Eight credits. Staff

Greek 115, 116 — Readings in Greek Both semesters

A survey of Greek literature from Homer to Plato. Selected authors are read in the original with analysis and discussion of each text. Eight credits. *Staff*

Greek 126 - Plato: Selected Dialogues Alternate years

A study of selected Platonic Dialogues. Four credits. Rothwell

Greek 130 — Greek Lyric Poetry Alternate years

A survey in the original Greek of the major writers of drinking and fighting songs, of political and personal songs, of sports songs and love songs from about 650 B.C. to 450 B.C. Knowledge (at least through English translation) of Homer, Hesiod and the Homeric Hymns is presumed. Four credits. *Boedeker*

Greek 131 — Greek Pastoral Alternate years

Selections from Theocritus, with a consideration of his influence on later pastoral poetry. Four credits. Staff

Greek 132 — Homer Alternate years

A reading of selected books of the *lliad* and/or *Odyssey* with special attention to their literary value as well as to problems of oral composition, metrics, linguistics, authorship and text-history. Four credits. *Staff*

Greek 138 — Plutarch Alternate years

Translation and textual analysis of extensive selections from Plutarch's Parallel Lives. Emphasis centers around the moralizing and anecdotal character of Plutarchian biography and Plutarch's concepts of virtue (arete) and the statesman (politikos). Outside readings in English from Plutarch's Lives and Moralia and from Suetonius' Lives of Twelve Caesars. Four credits. Lavery

Greek 140 — Herodotus Alternate years

An examination of selected passages from Herodotus' account of the Persian Wars. Four credits. Boedeker, Nagy

Greek 141 — Thucydides Alternate years

A survey in depth of Thucydides' History of the Peloponnesian War. Extensive sections of historical and literary significance are read in the original Greek. Four credits. Nagy

Greek 150 — Hesiod/Homeric Hymns Alternate years

A study of the Greek text of Hesiod, the *Theogony*, the *Works and Days*, the *Shield* and the important fragments. Also the corpus of the *Homeric Hymns*. Background material of Greek religion in the archaic age and the social and economic condition of Greek peasant life is discussed. Four credits. *Boedeker*

Greek 151 — Attic Orators Alternate years

Selected speeches from the Attic Orators such as Antiphon, Andocides, Lysias and/or Demosthenes are read in the original, combined with a rhetorical analysis and a study of the historical and political events of the late fifth and fourth centuries B.C. Four credits. Rothwell

Greek 152 — Patristic Greek Fall

From the first four centuries of the Church's literature, a special author or group of authors are studied in detail with special attention to the political, religious and literary context of the period. Four credits.

Greek 160 — Aeschylus Alternate years

A detailed study of the *Agamemnon* and other dramas of Aeschylus in the original. Four credits. *Hamilton*

Greek 161 — Sophocles Alternate years

The text of the *Life* of Sophocles and selected plays; investigation of the origin of the Greek theatre and its physical structure; extensive investigation of twentieth century literary criticism of Sophocles. Four credits. *Ziobro*

Greek 162 — Euripides Alternate years

An analysis of two plays in Greek, with special attention to Euripides' dramatic technique. Four credits. *Hamilton*

Greek 163 — Aristophanes Alternate years

Selected plays are read in the original. Historical backgrounds, literary interpretation and study of the genre, comedy, are emphasized. Four credits. *Happe, Rothwell*

Greek 301, 302 — Tutorial Seminar Both semesters

Designed for selected students with approval of professor and department chair. This work may be done for one or two semesters (four or eight credits) and takes the form of either a survey of selected authors or a specialized study of a single author or period. Four or eight credits. Staff

Classics (In English)

Classics 127 — Greek Literature Survey in English Fall

The objective of this introductory course is a beginning acquaintance and an interpretation of a number of major works of Greek authors. Four credits. Staff

Classics 128 — Latin Literature Survey in English Spring

Classics 152 — Introduction to Greek Archaeology Fall

A study of the Bronze Age sites of Minoan Crete and Mycenaean Greece and of archaic, classical, and Hellenistic Greece, with special attention given to the ancient city of Athens. Four credits. Simon

Classics 153 — Ancient Sculpture Fall

An examination of the techniques, material, meaning and function of ancient sculpture, both free-standing works and sculpted reliefs. Most attention is given to the sculpture of ancient Greece and Rome but, in different years, the sculpture of the ancient Near East and Egypt also is studied. Four Credits. Simon

Classics 157 (HIS 141) — History of Greece Fall

A study of Greek history from the beginnings to the death of Alexander. Four credits. Nagy

Classics 158 (HIS 143) — History of the Roman Republic Spring

A study of Rome from the regal period to the Battle of Actium (31 B.C.) with emphasis on the Political and social forces that culminated in a century of revolution (133-31 B.C.) and led to the establishment of the Principate. Four Credits. *Lavery*

Classics 159 (HIS 144) — History of the Roman Empire Alternate years

A survey of Roman imperial civilization from the Principate of Augustus (27 B.C.) to the death of Diocletian (305 A.D.). The course concentrates on the sources for this period: the historians, inscriptions, monuments, and coins. Four credits. *Staff*

Classics 160 — Plutarch's Works Alternate years

A study of selected biographies and passages from the *Moralia* as reflections of the Graeco-Roman experience. Four credits. *Lavery*

Classics 161 — Athenian Democracy Both semesters

An analysis of the institutions, literature and political thought inspired by the democracy of fifth- and fourth-century Athens. Four credits. *Rothwell*

Classics 173 —The Art of Ancient Rhetoric Alternate years

The course attempts to study the effect of oratory or public speaking from the judicial and legislative system of Ancient Greece and Republican Rome as well as upon other verbal arts. Four credits. *Staff*

Classics 178 — Orality and Literacy in Ancient Greece Alternate years

Much of ancient Greek literature originates in a long tradition of anonymous oral poetry and story-telling. This course considers the aesthetic nature and social functions of oral literature, the techniques of oral performance and transmission (relying here on modern anthropological studies of contemporary oral cultures), and the relative "orality" and "literacy" of some major works of Greek literature, such as the Homeric poems, choral lyric, drama, and Herodotus. Four credits. Boedeker, Wilson (English)

Classics 190 (RS 35) — Greek Religion Alternate years

A study of the main beliefs, movements, rites, and practices of Greek religion from earliest times to the advent of Christianity. Four credits. *Staff*

Classics 191 (RS 36) — Roman Religion Alternate years

A study of the principal religious cults of the Roman people from earliest times until the advent of Christianity. Four credits. *Staff*

Classics 192 — Ancient Sanctuaries and Religion Spring

A detailed study of the archaeological remains from ancient sanctuaries. The buildings and monuments are studied in connection with other evidence for religious behavior in the different ancient cultures. The emphasis is on the cults and shrines of Ancient Greece and Rome but, in different years, the ancient Near East and Egypt also are considered. Four credits. Simon

Classics 216 — Seminar in Ancient Epic Alternate years

Vergil's Aeneid in English (for non-majors only). Advanced literary criticism of the Aeneid through close reading of text, secondary sources, frequent short papers, and seminar discussion. Emphasis is on structure, imagery, the transformation of Homer and the perspective of Roman heroism. The level of discussion presupposes a number of readings of the Aeneid in translation. Four credits. Staff

Classics 217 — Seminar in Greek Drama Alternate years

Intensive reading of texts (in translation) of selected Greek plays dealing with a common theme, e.g., the House of Atreus. Reading and discussion of critical literature. Study of the archaeology and staging technique of Greek theatre. For non-majors only. Four credits. *Staff*

Classics 220, 221 — Classical Theatre Seminar Both semesters

A study of the beginnings of theatre for beginners in theatre; this course leads to both the Ancient Greek theatre and to the modern theatre and their actual practices backstage and on. An ancient play is closely perused in class and then performed by members of the seminar for the general public. The influence of that play on later European drama is also explored. Four or eight credits. *Happe*

Classics 301, 302 — Tutorial Seminar Both semesters

Designed for selected students with approval of professor and chair. Particular areas of classical civilization and/or literature may be studied for one or two semester. Four or eight credits. Staff

Economics

John F. O'Connell, Ph.D., Professor Frank Petrella, Jr., Ph.D., Professor John R. Carter, Ph.D., Associate Professor Thomas R. Gottschang, Ph.D., Associate Professor John D. O'Connell, M.B.A., C.P.A., Associate Professor Nicolas Sanchez, Ph.D., Associate Professor Scott Sandstrom, M.S., J.D., C.P.A., Associate Professor David J. Schap, Ph.D., Associate Professor and Chair Charles H. Anderton, Ph.D., Assistant Professor Kathryn L. Dorman, Ph.D., Assistant Professor Daniel Jones, M.S., M.B.A., C.P.A., Assistant Professor George Kosicki, Ph.D., Assistant Professor Kolleen J. Rask, Ph.D., Assistant Professor Richard J. Sullivan, Ph.D., Assistant Professor Carol A. Martinson, M.B.A., C.P.A., Visiting Assistant Professor Ajit K. Ranade, Ph.D., Visiting Assistant Professor David Buffum, Cand. Ph.D., Instructor Janice G. Yee, Cand. Ph.D., Lecturer

The Economics Department offers majors in two distinct subject areas: economics and economics-accounting. Also offered is a select honors program. The number of students permitted in each major is limited. Students may apply for these majors during the admission process or subsequently in the spring of their freshman or sophomore year. Introductory and intermediate-level courses are also available for non-majors. Members of the department are dedicated teachers who value the opportunity at Holy Cross to interact closely with their students. They are also productive scholars, whose research has been published in leading economics and accounting periodicals.

The Economics Major

Economics can be defined as the study of how people allocate scarce resources among competing ends. It can also be understood as a particular way of thinking distinguished by its axioms, concepts, and organizing principles. In terms of both subject matter and methodology, economics promises important and powerful insights into the human experience. Completion of the major can serve as preparation for further graduate study, or it can provide a strong background for any one of a large number of careers, particularly those in business, law, and government.

The economics major is designed to provide students with the theory and methodology required to analyze a wide range of economic issues. The minimum requirement for the major is nine semester courses in economics plus two in mathematics. Five of the courses in economics are specified and cover principles (2), intermediate theory (2), and statistics. An average grade of C or better must be achieved in the principles sequence for continuation in the major. The remaining courses are electives which apply and/or extend the previous learning to an array of more specialized topics, including, for example, development, monetary policy, international trade and finance, economics of law, and labor economics. Because mathematics plays an important role in economics, majors are required also to take one year of college calculus or its equivalent. The maximum number of courses in the department which may be taken by an economics major is 14. Economics courses are numbered 00-69, 100-169, 200-269, and 300-369. The normal order of courses for a freshman majoring in economics is:

Freshman	Mathematics 25, 26 (Calculus) Economics 11, 12 (Principles)	2 2
Sophomore	Economics 155, 156 (Micro/Macro Theory) Economics 149 (Statistics)	2 1
Sophomore-Senior	Economics Electives	4

At least three of the electives must be upper-level courses having as prerequisites Economics 155 (Microeconomics), Economics 156 (Macroeconomics), or both. These courses are numbered between 200 and 269. Additional work in mathematics and computer science is recommended for students planning to pursue graduate degrees in either economics or business.

The Economics-Accounting Major

Accounting is often referred to as the language of business. It has been defined broadly as the process of identifying, measuring, and communicating economic information. Because sound decisions based on reliable information are essential for the efficient allocation of resources, accounting plays an important role in our economic system. Each year the largest accounting firms visit Holy Cross to recruit majors for employment opportunities in public accounting. Although most majors choose to start their careers in public accounting, the curriculum is sufficiently broad to permit careers with government, private, and non-profit institutions.

The accounting major is designed to allow students the benefits of a liberal arts education while at the same time meeting AICPA national course requirement standards. Required courses include accounting principles (2), intermediate (2), cost, and advanced accounting, income taxes, auditing, business law (2), statistics, economics principles (2), and college calculus (2). Also required is a minimum of one and a maximum of three electives. The maximum number of courses in the department which may be taken by an economics-accounting major is 16.

Accounting courses are numbered 70-99, 170-199, 270-299, and 370-399. The normal order of courses for a freshman majoring in economics-accounting is:

Freshman	Mathematics 25, 26 (Calculus) Economics 71, 72 (Fin. & Adm. Acctg.)	2 2
Sophomore	Economics 177, 178 (Asset & Equity) Economics 11, 12 (Principles)	2 2
Junior	Economics 289 (Cost Acctg.) Economics 292 (Fed. Inc. Tax) Economics 149 (Statistics) Elective	1 1 1 1
Senior	Economics 287, 288 (Business Law) Economics 291 (Auditing) Economics 290 (Advanced Acctg.)	2 1 1

It is strongly recommended that accounting majors choose their electives from the following: Economics 175 (Corporation Finance), Economics 117 (Money and Banking), Economics 155 (Microeconomics), Economics 156 (Macroeconomics), and Economics 126 (Operations Research). Accounting majors are required to take the AICPA Level I and Level II achievement examinations.

Departmental Honors Program

This program is limited to approximately four juniors and four seniors. Students apply for the program as first semester juniors and complete Economics 149, 155 and 156 by the end of that semester to be eligible for the program. During the second semester of both the junior and senior years honors students participate in a methodology seminar; during first semester senior year

the thesis is written under the direction of a faculty advisor. The honors course sequence is:

Junior	Economics 360 (Res. Meth. 1 - Spring)	1
Senior	Economics 362 (Dir. Research - Fall)	1
	Economics 361 (Res. Meth. 2 - Spring)	1

Economics 360 (Research Methodology 1) is a four-credit course, while Economics 361 (Research Methodology 2) is a two-credit overload which may be taken pass/fail. Economics 362 (Directed Research) counts as the equivalent of an upper-level economics elective.

Non-Majors

The department strongly recommends that the full-year sequence of Principles of Economics be taken, especially if the student plans to take additional economics courses, most of which require the sequence as a prerequisite. Normally the sequence is taken in the order of Economics 11, then 12. However, Economics 11 is not required for 12, permitting reversal of the sequence order for scheduling convenience. The student desiring only a one-semester overview of economics is advised to take Economics 11 (Principles of Macroeconomics).

Non-majors seeking an introduction to accounting may take either the first semester or both semesters of the sequence Economics 81, 82 (Financial and Administrative Accounting).

Economics 11, 12 — Principles of Economics Both semesters

Develops principles which explain the operation of the economy and suggest alternative policy solutions to contemporary economic problems. The first semester (macro) develops the principles of national income analysis, money, economic growth and international trade. The second semester (micro) establishes principles governing commodity and resource pricing under different market conditions and the distribution of income. Eight credits. *Staff*

Economics 71, 72 — Financial and Administrative Accounting Both semesters

A study of the fundamental principles of accounting for proprietorships, partnerships, and corporations, and of the basic theory underlying these principles. The course also considers the managerial uses of accounting data in such areas as credit and investment decisions, choice of financing, expansion or contraction of operations, and establishment of dividend policy. Intended for freshman accounting majors only. Eight credits. *Staff*

Economics 81, 82 — Financial and Administrative Accounting Both semesters

Same as Economics 71, 72. Intended for students other than freshman accounting majors. Eight credits. *Staff*

Economics 115 — Economic History of the United States Fall

Investigates the development of the American economy from colonial days to the present. Special emphasis is placed on the pattern of economic growth, in particular the interplay of economic principles and institutional forces shaping the transition from an agricultural to an industrialized economy. Prerequisites: Economics 11, 12. Four credits. *Petrella, Sullivan*

Economics 116 — Origins of Economic Analysis Alternate years; not offered this year

Considers the 18th and 19th century roots of the analytical tradition in economics. Concentration is on the major themes of classical economics: value and distribution theory, growth and development theory, monetary analysis, and the theory of economic policy. Moreover, each theme is appraised in view of its preclassical origins and its impact on later schools of thought. Prerequisites: Economics 11, 12. Four credits. *Petrella*

Economics 117 — Money and Banking Spring

Investigates those economic principles governing the institutions of money, credit and banking. Special emphasis is placed on the control mechanisms of the central banking system and the integration of income and monetary theory. Specific applications of the theory are made

to contemporary questions of macroeconomic policy. Closed to Economics majors. Prerequisites: Economics 11, 12. Four credits. *Dorman, Sanchez*

Economics 121 — Economic Development of Modern China Alternate years; not offered this year

Aims to provide the student with a sophisticated understanding of economic development in the People's Republic of China. The historical circumstances and resource endowments which have constrained Chinese economic development are examined as a basis for analyzing the intentions and success of policies adopted since 1949. Prerequisites: Economics 11, 12, or permission. Four credits. *Gottschang*

Economics 125 — Public Finance Fall

Studies the economics of governmental expenditure and revenue generation, as well as the fiscal relationships and problems inherent in a federal system of government. Topics discussed include: the economic basis for governmental activity, the budgetary process, expenditure programs, taxation as a form of government finance, and fiscal federalism. Prerequisites: Economics 11, 12. Four credits. *Staff*

Economics 126 — Operations Research Alternate years; not offered this year

Acquaints the student with decision-making, the application of mathematical and statistical techniques to economic and business problems. Emphasis is placed upon the optimization of an objective, subject to constraints upon available action. Linear optimization models are treated in depth. Prerequisites: Economics 11, 12. Four credits. Sanchez

Economics 128 — Comparative Economic Systems Alternate years; not offered this year The first segment of this course develops an analytical framework for the comparison of economic systems. The second part utilizes this framework to examine and compare major economic systems, including those of the United States, the Soviet Union, China, Yugoslavia, Hungary, and France. Prerequisites: Economics 11, 12. Four credits. Gottschang

Economics 149 — Statistics Both semesters

An introduction to statistical methods emphasizing the statistical tools most frequently used in economic analysis. Topics include descriptive statistics, probability theory, random variables and their probability distributions, estimation, hypothesis testing, and linear regression analysis. Prerequisites: Economics 11, 12. Four credits. *Staff*

Economics 155 — Microeconomics Both semesters

This is an analysis of the economic behavior of the household and the business sectors and their interrelations within the market. Price and resource allocations in the following market structures are considered: pure competition, monopolistic competition, oligopoly, monopoly, and monopsony. The course concludes with a discussion of general equilibrium and the welfare implications thereof. Prerequisites: Mathematics 25, 26; Economics 12. Four credits. Staff

Economics 156 — Macroeconomics Both semesters

Studies aggregate economic behavior as determined by interactions between the product, money, and labor markets. The variables focused upon are the general levels of prices, of national income, and of employment. Applications of the theory are made and policy inferences are drawn with respect to business cycles, inflation, growth and development, and international trade. Prerequisites: Mathematics 25, 26; Economics 11, 12. Four credits. *Staff*

Economics 175 — Corporation Finance Both semesters

Topics include management of assets, tax factors in business decisions, the various sources of capital, both short-term and long-term, financing with debt versus financing with equity, the roles of the investment banker and the securities exchange, the expansion and growth of business firms, and the treatment of financially distressed business firms. Prerequisites: Economics 11, 12. Four credits. *J.D. O'Connell*

Economics 177, 178 — Asset and Equity Accounting Both semesters

This course in intermediate accounting offers a thorough study of the proper valuation of assets, liabilities, and owner's equity, and the related problems of the proper matching of revenues and expenses. Other topics covered include preparation of the statement of changes in financial position, analysis and interpretation of financial statements, and financial statements adjusted for general price-level changes. Prerequisites: Economics 71, 72. Eight credits. J. D. O'Connell

Economics 202 — Industrial Organization and Public Policy Spring

The first half of this course consists of a study of the theoretical and empirical relationships between market structure, conduct and performance in American industry. The knowledge gained therefrom is then used to evaluate U.S. antitrust policy. A number of industry case studies and landmark court decisions are read. Prerequisite: Economics 155. Four credits. Kosicki

Economics 203 — Economics of Human Resources Both semesters

Analyzes the labor market in light of recent developments in economic theory. The following areas are explored: labor force participation studies, human capital theory, and marginal productivity theory. Interferences with the market through legislation, discrimination and labor unions and the interactions between the labor market and other sectors of the economy are considered. Prerequisite: Economics 155. Four credits. *Staff*

Economics 204 — Law and Economics Fall

Examines the relative efficiency of alternative legal arrangements using microeconomics as the basic investigative tool. The core of the course consists of a thorough analysis of the common law. Special emphasis is given to the areas of property, contract, liability, and criminal law. Prerequisite: Economics 155. Four credits. *Schap*

Economics 205 — Economic Growth and Development Fall

Examines the theoretical and institutional factors influencing economic growth. Attention is given to various models of economic growth, the relation between social, political and economic institutions and the pattern of economic growth, the optimal public policy mix for economic growth and special problems of growth faced by the underdeveloped nations. Prerequisites: Economics 155, 156. Four credits. *Staff*

Economics 206 — Econometrics Fall

This is a study of the use of statistical inference to test economic theory. Probability distributions, properties of estimators, multiple regression and correlation analysis, and simultaneous equation systems are considered. A quantitative research paper is expected. Prerequisites: Economics 155, 156. Four credits. *Carter, J.F. O'Connell*

Economics 207 — Theory of International Trade Both semesters

Examines the causes and consequences of the trade of goods and services between nations. Attention is given to the principle of comparative advantage, the Ricardian model of trade, the factor endowments theory of trade, the specific factors model, new theories of trade, the causes and consequences of trade restrictions, economic growth and trade, international factor movements, and economic integration. Prerequisites: Economics 155, 156. Four credits. *Staff*

Economics 208—International Monetary Theory and Policy Spring

Examines the financial and macroeconomic relations among nations. Attention is given to foreign exchange markets in the short run and in the long run, balance of payments accounting, interest rate adjustments and covered interest arbitrage, the eurocurrency markets, devaluation, the optimum currency area, the international monetary system, and LDC debt problems. Prerequisites: Economics 155, 156. Four credits. *Anderton, Sanchez*

Economics 211 — Welfare Economics Spring

Pareto optimality conditions and the "principle of second best" are analyzed along with Bergsonian social welfare functions. Applications are made to the general area of social choice and individual values and then to more specific areas such as: public regulation and optimal taxation; education; health care; income transfers; pollution and natural resources. Prerequisite: Economics 155. Four credits. *I. F. O'Connell*

Economics 212 — Monetary Theory Spring

Provides a thorough understanding of the role of money in the economy. The course begins with an investigation of the quantity theory of money and alternative theories of money demand and supply. Subsequently, the impact of money on prices, interest rates, and output will be explored. The course concludes with an examination of issues in monetary policy. Prerequisites: Economics 155, 156. Four credits. *Dorman. Sanchez*

Economics 213 — Mathematics for Economists Alternate years; not offered this year

The object is to provide a mathematical background to students interested in pursuing a quantitative approach to economics or business. The following are considered: sets, functions and limits, differential and integral calculus, and matrix algebra. Applications are made to the settheoretic approach to economic theory, extremum problems subject to constraints, and general systems analysis. Prerequisites: Economics 155, 156. Four credits. Staff

Economics 215 — Public Choice and Political Economy Fall

The methods of economics are applied to the study of democratic political processes. The fundamental assumption made is that participants in these processes are utility maximizers. Topics might include: public goods and externalities; logic of collective action; voting rules; behavior of voters, politicians, and bureaucrats; property rights; regulation; income distribution; and theories of the state. Prerequisite: Economics 155. Four credits. *Buffum, Carter*

Economics 216—Economics of Peace, Conflict, and Defense Spring

Investigates the phenomenon of conflict using methods drawn largely from theoretical economics. The first segment studies the essential similarities in all conflict situations in a series of models of broad application. Differences in conflict situations are revealed and analyzed in terms of divergences from the general models. The second segment studies a variety of conflict management procedures for resolving conflict among individuals, groups, or nations. The third segment utilizes various mathematical models to analyze arms races and arms control. Prerequisites: Economics 155, 156. Four credits. *Anderton*

Economics 256 — Advanced Topics in Macroeconomics Alternate years; not offered this year Takes the theoretical framework developed in the intermediate macroeconomics course and applies it to advanced issues in public policy and in theory. The controversies among various schools of thought are addressed as well as the following: recent reinterpretations of Keynes' writings, questions concerning the stability of the financial system, the microfoundations of macroeconomic theory, the natural rate hypothesis, rational expectations, supply-side economics, and monetarism. Prerequisites: Economics 155, 156. Four credits. *Dorman*

Economics 287, 288 — Business Law (Based on the Commercial Code) Both semesters Required of all students majoring in accounting. The course includes contracts, agency, sales, negotiable instruments, the legal aspect of business associations, insurance and property, both real and personal. Prerequisites: Economics 171, 172. Eight credits. Sandstrom

Economics 289 — Cost Accounting Spring

An introductory study of basic cost accounting principles, practices, and procedures, with a special emphasis on job order costs, process costs, standard cost, and estimated costs; managerial control through the use of cost accounting data and procedures; and special applications of cost accounting procedures. Prerequisites: Economics 171, 172. Four credits. *Jones*

Economics 290 — Advanced Accounting Spring

Covers advanced problems relating to partnership formation, operation, and liquidation; a study of corporate business combinations and consolidated financial statements under the pooling and purchase accounting concepts; and other accounting topics such as installment sales, consignments, branch accounting, bankruptcy and corporate reorganizations. Prerequisite: Economics 289. Four credits. *J.D.O'Connell*

Economics 291 — Auditing Fall

Consideration is given to the theory and practice of auditing including professional ethics, professional standards and procedures, and the legal environment in which the auditor functions. Emphasis is placed on the role of internal control and the impact of electronic data processing. Other topics include sampling techniques, both judgmental and statistical; the auditor's reporting responsibilities; and the nature of evidential matter. Prerequisite: Economics 290. Four credits. *Jones*

Economics 292 — Federal Income Taxation Fall

A study of the federal income tax laws as they relate to individuals, partnerships, and corporations, with special emphasis upon tax planning. Consideration is also given to the history of the federal income tax, various proposals for tax reform, and the use of tax policy to achieve economic and social objectives. Prerequisites: Economics 171, 172. Four credits. J.D. O'Connell

Economics 360—Research Methodology Seminar 1 Spring

This is a department honors seminar that examines the methodology used by economists. Students learn what the economist does by examining specific economic studies. The steps involved in undertaking research and the alternative methodological approaches are treated. A high level of student participation is expected. By the end of the seminar the students settle upon topics that they will research in the senior year. Four credits. *Staff*

Economics 361—Research Methodology Seminar 2 Spring

This is the same as Economics 360. Senior honors students participate for a second time in the seminar by presenting their completed research projects and by serving as resource persons for other honors students. Prerequisites: Economics 360, 362. Two credits. Staff

Economics 362—Honors Directed Research Fall

Honors students undertake a research project under the direction of a department faculty member. The results of this endeavor are presented in the form of a thesis. The course counts toward the major as the equivalent of an upper-level economics elective. Prerequisite: Economics 360. Four credits. *Staff*

Education

Joseph H. Maguire, M.A., Associate Professor and Chair Denis J. Cleary, M.A., Visiting Lecturer

The Department of Education offers a limited number of courses in education to sophomores, juniors and seniors. These courses are intended to introduce the students to the concerns and issues of secondary education, but are not specifically designed to meet the provisions for teacher certification required in most states.

There is a willingness and definite commitment on the part of the departmental faculty to encourage students preparing to serve as teachers in private as well as public secondary schools and, in particular, to assist students preparing to teach religion. Adjustments in course readings and assignments will be made to assist the student interested in the teaching of religion, especially in Education 67.

Holy Cross does not offer an education major and the focus of the courses listed below is limited to *secondary* education. Courses in elementary and special education taken at other institutions are rarely approved for credit toward a Holy Cross degree.

Education 62 — Principles of Guidance Spring

This course introduces the students to a consideration of basic issues of concern in the helping relationship. It explores these issues by readings, writing and discussion. Among the areas of study are death, violence, loneliness, intimacy and hope. Four credits. *Maguire*

Education 67 — Educational Psychology Fall

The student is introduced to relationships existing between psychology and education. Growth and development, the nature of the learner, the teaching-learning process, and the role of the teacher are studied. New and innovative approaches to education will be discussed. Four credits. *Maguire*

Education 68 — Philosophy of Education Fall

This course is designed as an introduction to educational theories. The range of concern includes: education in nature and society, education in the school, education in the United States and ultimate questions in the theory and practice of education. Four credits. *Cleary*

Education 75 — Principles and Methods of Secondary School Teaching Spring

The student will study and demonstrate various teaching methods. Questions concerning the secondary school curriculum, discipline and motivation, instructional materials and secondary school goals and principles are also pursued. Four credits. *Cleary*

Education 200 — Special Topics in Education Both semesters, if requested

Tutorial and research projects designed by students and faculty members. Admission determined by evaluation of proposal. Four credits. *Staff*

English

Patricia L. Bizzell, Ph.D., Professor John H. Dorenkamp, Ph.D., Professor and Chair Thomas M.C. Lawler, Ph.D., Professor John T. Mayer, Ph.D., Associate Professor B. Eugene McCarthy, Ph.D., Professor John E. Reilly, Ph.D., Professor John D. Boyd, Ph.D., Associate Professor Robert K. Cording, Ph.D., Associate Professor Maurice A. Geracht, Ph.D., Associate Professor Patrick J. Ireland, Ph.D., Associate Professor James M. Kee, Ph.D., Associate Professor Richard E. Matlak, Ph.D., Associate Professor Richard H. Rodino, Ph.D., Associate Professor Rev. Philip C. Rule, S.J., Ph.D., Associate Professor Helen M. Whall, Ph.D., Associate Professor John H. Wilson, Ph.D., Associate Professor Daniel G. Madigan, Ph.D., Assistant Professor William R. Morse, Ph.D., Assistant Professor Susan Elizabeth Sweeney, Ph.D., Assistant Professor Richard G. Carson, Ph.D., Visiting Assistant Professor Allan J. Crowley, Ph.D., Visiting Assistant Professor Gloria Shafaee-Moghadam, Ph.D., Visiting Asssistant Professor Cyrus Cassells, B.A., Lecturer

The study of English is fundamental to liberal education. It deals not only with literary works of the imagination — poems, plays, novels, short stories — but also with the use of language as a means of communication. The English department offers the student the opportunity to develop an appreciation of literature and a sensitivity to literary techniques, to expand knowledge of the way language has been used, and to increase mastery of written expression. Accordingly, courses in the department are consonant with student interests leading not only to graduate study but also to law, medicine, business, and other fields. Students who major in English will, in their years at Holy Cross, take a minimum of 10 upper-division English courses. Majors in the Premedical Program are allowed a minimum of eight. No student, however, may take a total of more than 14 English courses.

Normally, freshman majors are required to enroll in two semesters of Critical Reading and Writing designated for majors. All majors are required to take (as two of their 10 required upper-division courses) a two-semester second-year course, *The Traditions of English Literature*. All majors, before they graduate, must have taken at least one course in American literature before

1900, and one course in three of the following areas:

1. Medieval literature

2. Renaissance literature, excluding Shakespeare

3. Restoration and 18th century literature

4. 19th century British literature

Each semester the English department offers approximately 25 different courses from which the student may choose. These courses vary greatly. Some are organized in terms of historical periods of English and American literature (Restoration and 18th century Literature, American Poetry to 1900); some are organized according to literary type (Modern Drama, 19th century Novel); and some are by author (Chaucer, Shakespeare). Other courses are arranged thematically, tracing a unifying element across chronological, generic, and national lines (Tragic View, Literature and Myth). Still other courses deal with the nature and workings of language, such as Introduction to Linguistics; while others concentrate upon developing skill in the use of language, e.g., Composition, Creative Writing.

Tutorials, seminars, and lecture courses on special topics are also offered, as well as a range

of courses in the College's Interdisciplinary Studies Program.

The Nu Chi chapter of Sigma Tau Delta, the national English honor society, was established in 1987. Eligible English majors are elected to membership in their junior year and actively engage in the promotion of English studies.

The English department participates in the national and college Advanced Placement Programs. Students to whom the department grants advanced placement receive four credits and may elect upper division courses (English 200-299) in their freshman year.

All English department courses carry four credits.

Introductory Courses

English 10 — Composition Both semesters

Devoted to improving the student's writing ability through frequent writing and rewriting. Each section is limited to 10 students. Intensive work during the semester concentrates on the student's own writing examined in class and in conference with the instructor. Staff

English 20 — Critical Reading and Writing: I Fall

Identifies and examines the elements of literature as they are found in plays and poems of various periods, authors and kinds. Equal emphasis falls on the writing of essays which logically organize and persuasively present critical responses to literature. Staff

English 30 — Critical Reading and Writing: II Spring

The topics are the elements of fiction: narrative structures, various aspects of style and point of view. This course is also devoted to the writing of essays which persuasively present critical responses to literature. *Staff*

English 110 — Traditions of English Literature I Fall

A survey of representative works and authors of the Anglo-Saxon, Medieval, and Renaissance periods to illustrate the major literary and cultural tendencies and to familiarize the student with significant figures, forms, and literary concepts in their historical context. *Staff*

English 111 — Traditions of English Literature II Spring

A survey of representative works and authors of the Neo-Classic, Romantic, and Victorian periods to illustrate the major literary and cultural tendencies and to familiarize the student with significant figures, forms, and literary concepts in their historical context. *Staff*

English 141 — From Medieval to Romantic Literatures Fall

A study of central themes in the Romantic movement: the theory of the imagination, the return to nature, and the rise of the poet-hero. Freshmen only. ISP Sequence XIV. Staff

English 142 — From the Last Romantics to Realism Spring

A study of the ways in which the Victorians both related to and diverged from their Romantic predecessors in an age which demanded social responsibility from its artists. Freshmen only. ISP Sequence XIV. *Staff*

Intermediate Courses

English 200 - Masterpieces of British Literature Both semesters

A study of selected major works of British Literature. Non-majors only. Staff

English 201 — Masterpieces of American Literature Both semesters

A study of selected major works of American Literature. Non-majors only. Staff

English 205 — Expository Writing Both semesters

Through a variety of weekly writing assignments, the course is designed to improve the student's ability to write effective expository essays. *Staff*

English 210 — Medieval Literature Fall

A study of some of the principal genres and major texts of English and Continental medieval literature: heroic poetry, the romance, religious allegory and spiritual writings, mostly read in translation. Sometimes taught as part of ISP Sequence I or III. Wilson

English 213 — Middle English Literature Spring

A course which develops the student's ability to deal directly with Middle English texts. Works read include Chaucer's *Troilus and Criseyde*, *Piers Plowman*, and a selection of romances, lyrics, and other 13th and 14th Century texts. *Wilson*

English 214 — Chaucer Fall

A reading and critical discussion of the complete Middle English text of *The Canterbury Tales* and selected minor poems. *Kee*

English 219 — Medieval and Renaissance Drama Spring

A study of the English drama from its medieval beginnings through the Renaissance. Included are mystery and morality plays and works of such Renaissance dramatists as Kyd, Marlowe, Jonson, Tourner, Webster, and Ford. *Dorenkamp*

English 220 — 16th Century Renaissance Literature Fall

A study of 16th Century prose and poetry in Europe and England. Included are works of Petrarch, Castiglione, More, Wyatt, Sydney, and Spenser. Sometimes taught as part of ISP Sequence I. *Lawler*

English 221 — 17th Century Renaissance Literature Fall

Concentrates primarily on the poetry of the period, including works of Jonson, Donne, Herrick, Carew, Herbert, Vaughan, Marvell and Milton. Shafaee-Moghadam

English 224 — Milton Spring

A study of Milton's early poems, Paradise Lost, Paradise Regained, and Samson Agonistes, and selections from the prose. Morse

English 227 — Shakespeare's Elizabethan Drama Fall

A close analysis of Shakespeare's dramas prior to 1600, focusing upon the history plays, with corollary studies in the tragedies. *Whall*

English 228 — Shakespeare's Jacobean Drama Spring

A close analysis of Shakespeare's dramas from *Hamlet* to *The Tempest*, with emphasis on stylistic development and Shakespeare's treatment of problems of the Jacobean age. *Whall*

English 229 - Shakespeare Survey Both semesters

A one semester survey of the major works of Shakespeare, focusing on individual texts as representative of the stages in his dramatic development, with some discussion of Shakespearean stage techniques. *Staff*

English 230 — Restoration and 18th Century Literature Fall

A study of the major English writers from the time of the Restoration until the publication of Lyrical Ballads, including Dryden, Pope, Swift, and Johnson. Geracht

English 231 — Dryden/Pope/Swift Spring

A study of the poetry of Dryden and Pope, and of the prose works of Swift, with reference to important background materials, approximately 1660-1745. *McCarthy*

English 236 — 18th Century Novels Fall

A close examination of the novel as formal prose narrative. Novels by Defoe, Fielding, Richardson, Smollet, the Gothic novelists, Sterne, and Austen are considered in detail with collateral readings. *Rodino*

English 239 — Restoration and 18th Century Drama Fall

A survey of English drama from Dryden to Sheridan, including heroic drama, Restoration comedy, sentimental developments of the 18th century, and the re-emergence of laughing comedy. *McCarthy*

English 241 — English Romantic Poetry Fall

A study of the major poets of the Romantic movement — Wordsworth, Coleridge, Byron, Shelly, and Keats. Rule

English 245 — Major Victorians Spring

A study of works by major poets such as Tennyson, Browning, Arnold, and Hopkins, and essayists such as Mill, Ruskin, and Caryle, to examine some of the cultural developments which define "Victorianism." Boyd

English 246 - 19th Century Novels Spring

A close examination of the British novel in the 19th Century, including novels by Thackeray, Dickens, the Brontes, George Eliot, and Hardy. *Geracht*

English 248 — Tennyson/Browning/Arnold Alternate years

A close study of the three major poets of the Victorian era, with special reference to the development of the dramatic monologue. *Rule*

English 250 — Early American Literature Alternate years

A study of the development of American Literature up to Romanticism, with emphasis on the late 18th and early 19th centuries. *Bizzell*

English 251 — American Renaissance Fall

A study of the "American Renaissance" through selected prose and poetry of Poe, Emerson, Thoreau, Whitman, Hawthorne, and Melville. *Reilly*

English 252 — American Realism Fall

A study of the major literary representatives of Realism and Naturalism, from the Civil War to World War I, including the Regionalists, Whitman, Twain, Howells, James, Wharton, Crane, and Norris. *Ireland*

English 255 — American Poetry to 1900 Alternate years

A survey of American poets and poetics from Bradstreet to Stephen Crane, with special attention given to Poe, Emerson, Whitman, Dickinson, and to the "Schoolroom Poets," i.e., Bryant, Longfellow, Whittier, Holmes, and Lowell. *Jordan*

English 256 — American Novel to 1900 Spring

A survey of selected works of major American writers of fiction before 1900, including Brown, Cooper, Hawthorne, Melville, Twain, Sims, Howells, Stowe, Crane, and James. Sweeney

English 257 — Modern American Poetry Alternate years

A close analysis of the development of American poetry from the early 20th century up to the contemporary period, including such poets as Frost, Pound, Eliot, Stevens, and Crane. Cording

English 258 — Modern American Novel Spring

A study of the development of the modern American novel from the close of the 19th century to the present, including representative works of Wharton, Dreiser, Norris, Dos Passos, Hemingway, Faulkner, and others. *Sweeney*

English 260 — Modern British Literature Spring

A study of the experimental literature of the British Modernists during the period 1910-1940, including the poetry of the Imagists, Pound, Eliot, and Auden, and selected novels of such figures as Joyce, Ford, Lawrence, and Woolf. *Mayer*

English 261 — 20th Century Irish Literature Alternate years

A study of the developments in Anglo-Irish poetry, drama and fiction from the Celtic Renaissance to the present, focusing on Yeats, Joyce, O'Casey, and Synge. *Staff*

English 265 — Modern British Poetry Fall

A study of the major British poets in the first half of the 20th century, including Hardy, the Georgians, the Imagists, Lawrence, Yeats, Eliot, Auden, and Dylan Thomas. *Mayer*

English 266 — Modern British Novel Spring

A close examination of the British novel between 1900-1960, including such authors as Conrad, Ford, Lawrence, Woolf, Joyce, Greene, and Golding. *Mayer*

English 268 — American Black Literature Spring

A survey of the literature from the Spirituals and Slave narratives through writers such as BuBois, Hurston, Wright, to moderns such as Ellison and Morrison. *McCarthy*

English 269 — Modern Drama Spring

A study of developments in drama since 1890 in England, America, and on the Continent through an examination of selected works of such playwrights as Ibsen, Chekov, Shaw, Pirandello, O'Neill, Brecht, and Williams. *Whall*

English 270 — Tragic View Spring

A study of the theory of tragedy in dramatic and non-dramatic literature. Readings in Greek tragedians, Latin and Continental, as well as English and American literature. Wilson

English 274 — Literature and Depth Psychology Alternate years

Describes how two schools of modern psychology, the Freudian and the phenomenological, can provide a revealing lens through which to examine and illuminate many literary works, modern and pre-modern. Taught as part of ISP Sequence II. *Boyd*

English 276 — Contemporary Fiction Fall

An examination of recent developments in fiction through study of selected works of present-day writers. Selections vary from year to year, but authors treated in the past have included Barth, Pynchon, Spark, Burgess, Nabokov, Boll, Brian More, Drabble, and R. Coover. *Dorenkamp*

English 277 — Contemporary Poetry Alternate years

A study of the different "lines" of contemporary poetry, including the "nature" poetry of Williams, Snyder, and Ammons; the "confessional" poetry of Lowell, Berryman, Snodgrass, and Plath; and the "deep image" poetry of Bly, Simpson, and Wright. Cording

English 279 — Contemporary Drama Alternate years

An examination of recent developments in drama through selected works of playwrights such as Albee, Beckett, Storey, Pinter, and Stoppard. Whall

English 281 — Rhetoric Fall

A consideration of rhetorical theory in the classical texts of Plato and Aristotle, an analysis of some famous examples of persuasive eloquence, and the students' own exercise of persuasive speech on subjects of public concern. Taught as part of ISP Sequence IX. Wilson

English 284 — Literary Criticism Spring

A study of the aims and procedures of literary criticism and of representative approaches, both ancient and modern. Selected readings from influential critics from Plato and Aristotle to the late 20th century, with application to literary works. *Kee*

English 288 — Creative Writing Both semesters

The study of the form and technique of poetry and/or fiction, with emphasis on regular creative work and practical criticism of the students' own thinking. *Visiting Lecturers*

English 290-299 — Special Topics in English Both semesters

The study of a special problem in literature or language, or a body of literature outside present course listings. *Staff*

English 300 Both semesters

Tutorials and independent study projects. Permission of the instructor and/or the department chair ordinarily required for such courses. *Staff*

History

Rev. Anthony J. Kuzniewski, S.J., Ph.D., Associate Professor and Chair Robert L. Brandfon, Ph.D., Professor James T. Flynn, Ph.D., Professor William A. Green, Ph.D., Professor David J. O'Brien, Ph.D., Professor James F. Powers, Ph.D., Professor
John B. Anderson, M.A., Associate Professor
Ross W. Beales, Jr., Ph.D., Associate Professor
Joseph J. Holmes, Ph.D., Associate Professor
Rev. Vincent A. Lapomarda, S.J., Ph.D., Associate Professor
Theresa M. McBride, Ph.D., Associate Professor
Edward F. Wall, Jr., Ph.D., Associate Professor
Lorraine C. Attreed, Ph.D., Assistant Professor
Noel D. Cary, Ph.D., Assistant Professor
Kristin Ruggiero, Ph.D., Assistant Professor
Kristin Ruggiero, Ph.D., Assistant Professor
Daniel Letwin, Cand. Ph.D., Visiting Instructor

The History Department offers a wide range of studies dealing with most of the world's major civilizations. There are few prerequisites, but students should select courses that are chronologically compatible. For those beginning a serious study of history, the department has designed entry level courses, History 1, through History 16. Courses numbered 30 or above are considered intermediate and/or upper-level in difficulty. Students taking these courses are generally expected to enter them with a firm grasp of fundamental historical facts and concepts.

Majors in history must take a minimum of 10 and a maximum of 14 one-semester courses. Freshman courses count toward that total; advanced placement credits do not. Two entry level courses must be chosen from among the following: Birth of the West (History 11), Europe, 1050-1500 (History 12), Europe from the Renaissance to 1815 (History 13) and Europe since 1815 (History 14). Majors also must take two United States history courses from those numbered above 30. Entry level requirements are ordinarily fulfilled by the end of the sophomore year. Senior history majors will not be admitted to entry-level courses in European history except under extraordinary circumstances and only with special permission from the Department Chair. First-year students are restricted to one history course a semester; upperclass students should limit their schedules to two history courses per semester. All majors are strongly encouraged to include non-Western courses in their program.

Students who have scored four or above in their Advanced Placement test in American history are exempted from the entry level American history courses. History majors with Advanced Placement credits in American history must take two American history courses numbered above 30. Students who have scored four or above in their Advanced Placement test in European History are exempted from the entry level European history requirements, but they are

required to take a minimum of two upper level European history courses.

History is among the most encompassing academic disciplines. It is informed by economics, sociology, political science and international relations; it embraces the arts and literature; and it is sensitive to developments in the basic sciences. Historians study the process of change over time. All aspects of human experience are of interest to historians, consequently the expertise and vision of each member of the History Department will vary according to his or her special orientation. History majors should seek academic encounter with professors having different interpretive approaches. Most importantly, majors should carefully select courses in related disciplines to expand their historical insights and to provide themselves with critical tools that will enhance their ability to pursue serious historical scholarship.

Students considering application to Holy Cross as history majors are strongly advised to pur-

sue foreign language study in high school.

History 1, 2 — American Themes Both semesters

An introduction to history as a mode of intellectual inquiry, this is an intensive reading, writing, and discussion course which is limited to 24 students. Sections are conducted in small groups of no more than 12 students. This course seeks to develop a sense of history through an in-depth study of selected topics and themes in American history. Emphasis is on student participation and the development of critical thinking. Readings involve some textual analysis, and there are frequent short papers. For first year students only. Eight credits. Staff

History 3 — Perspectives on Asia: The Great Tradition (formerly History 19) Fall, not offered this year

The course focuses on selected themes in the civilizations of China, Korea and Japan from traditional times through the mid-19th century. The course will be devoted to examining the philosophical, religious and artistic traditions of one of these great cultures through creative literature, films, field trips, lectures and discussions. Four credits. *Turner*

History 4 — Perspectives on Asia: Modern Transformation (formerly History 20) Fall, not offered this uear

The course focuses on the modern cultures of China, Japan and Korea with emphasis on how these great civilizations responded to the demands of nationalism and modernization after their confrontation with the West in the mid-19th century. Creative literature, anthropological accounts, journalists' reports, films and guest lecturers will be used to gain a multi-layered perspective of these complex societies. Four credits. *Turner*

History 5 — History of Latin America I: Colonial Period (formerly History 77) Fall, not offered this year

Surveys Latin American history from pre-Columbian to modern times emphasizing pre-Columbian Indian civilizations; the invention and discovery of the New World; European conquest and administration of Spanish and Portuguese America; race relations; and the wars of independence and Latin America's colonial legacy in the early 19th century. Four credits. Ruggiero

History 6 — History of Latin America II: National Period (formerly History 78) Spring, not offered this year

Surveys 19th and 20th century Latin America, focusing on representative countries in Latin America and the Caribbean together with the historic development of inter-American relations and contemporary Latin American problems. Topics considered are the military and politics; development and dependency; the Church and liberation theology; revolution and guerrilla warfare; slavery and race relations; and family and society. Four credits. *Ruggiero*

History 9 — Ancient Civilization, I (formerly History 11) Fall, not offered this year An examination of the history of the Ancient Near East, Egypt, and Greece from the fourth millennium through the fourth century B.C. The evolution of ancient humanity from prehistoric origins through the growth of ancient empires will be studied and compared with the very different model presented by Greek civilization through the death of Alexander the Great. Four credits. Powers

History 10 — Ancient Civilization, II (formerly History 12) Spring, not offered this year An examination of the growth and evolution of Rome from a city-state republic to its mastery of a Mediterranean empire. The course concludes with the restructuring of the Empire by Diocletian and Constantine, and the patristic synthesis of Christian and pagan cultures. Four credits. Powers

History 11 — Birth of the West Both semesters

An examination of Western history from the later Roman period to the formation of Europe in the eleventh century. The course covers the fusion of Roman and Christian civilization; the disintegration of the Western Roman Empire in the face of the Germanic invasions; the preservation of the Byzantine Eastern Empire; the Carolingian revival and decline; and the emergence of the European world at the dawn of the new millenium. Political, social, economic, and artistic developments will receive emphasis. Four credits. *Attreed, Powers*

History 12 — Europe, 1050-1500 Spring

An examination of Western history from the emergence of Europe in the eleventh century until the era of the Renaissance and Reformation. The course covers the appearance of the European states, the development of medieval territorial monarchy, European expansiveness, urbanism,

the evolution of Romanesque and Gothic styles, and the conflict between church and state as competing institutional structures in this creative age. Political, social, economic, and artistic developments will receive emphasis. Four credits. *Attreed, Powers*

History 13 — Europe from the Renaissance to 1815 Both semesters

The course provides a comprehensive survey of social, cultural, religious, economic, and political developments in Europe from the Renaissance to the fall of Napoleon. Special emphasis will be given to Italy during the Renaissance, the rise of Protestantism, the evolution of monarchical power, the development of European overseas empires, the French Revolution and Bonapartism. Four credits. *Staff*

History 14 — Europe Since 1815 Both semesters

The course affords a survey of European history since the fall of Napoleon. International developments in the age of Metternich, the rise of industrial society, the evolution of national states in Germany and Italy, the Bismarckian system, and World Wars I and II receive emphasis. The course also includes major social and intellectual trends in the period. Four credits. *Staff*

History 15, 16 — History of the U.S. Both semesters, not offered this year

A survey of American political, social, and cultural history from the earliest settlements to the present. The first semester ends with the Civil War. Eight credits. *Beales*

History 31 - History of Greece (formerly History 141) Alternate years in fall

A study of Greek history from the beginnings to the death of Alexander. Cross-registered in the Department of Classics as Classics 157. Four credits. *Nagy*

History 33 — History of the Roman Republic (formerly History 143) Alternate years in spring A study of Rome from the regal period to the Battle of Actium (31 B.C.), with emphasis on the political and social forces that culminated in a century of revolution (133-31 B.C.) and led to the establishment of the Principate. Cross-registered in the Department of Classics as Classics 158. Four credits. Lavery

History 34 — History of the Roman Empire (formerly History 144) Alternate years in fall, not

offered this year

Asurvey of Roman imperial civilization from the Principate of Augustus (27 B.C.) to the death of Diocletian (305 A.D.). The course will concentrate on the sources for this period: the historians, inscriptions, monuments, and coins. Cross-registered in the Department of Classics as Classics 158. Four credits. *Lavery*

History 43 - The Later Middle Ages Alternate years in fall; not offered this year

The course studies Europe from the late thirteenth through the late fifteenth centuries. It is organized both chronologically and topically. We will study the period from the perspectives of: Kingship and government, warfare, church and lay piety, society and family, economy, and philosophy and education. Each of these topics will be studied with a chronological approach to chart development over time. This is a critical time in Europe;s development as governmental structures grow in size and strength while the population faces the social and economic crises engendered by the Black Death and the Hundred Years' War. Four credits. Attreed

 $History\,45,46-12 th\,Century\,Renaissance\,I,\,II\,Alternate\,years\,both\,semesters; not\,offered\,this$

An examination of the birth of European civilization from the mid-11th until the mid-12th century, with emphasis on institutional monarchy, the Church, the Crusades, the intellectual revival, and Romanesque art and architecture. The second semester continues these themes into the age of Gothic to the mid-13th century. Eight credits. *Powers*

History 47, 48 — Europe in the Renaissance and Reformation Alternate years both semesters,

not offered this year

A study of the most significant political, intellectual, and religious developments from the end of the 14th century until the Thirty Years War: the rise of national monarchies, humanism and the flowering of civilization, the expansion of Europe, the Age of Charles V, Reformation and Counter-Reformation, the Peace of Westphalia. Eight credits. Wall

History 53 — Europe in the 20th Century, I Fall

Although this course will focus on the major political events of this century, social change and cultural trends also will be discussed. Topics include: the 'belle epoque'; origins of World War I, communism and the Russian Revolution; democracies facing reform and reaction; the rise of political anti-Semitism; the development and establishment of fascist and Stalinist dictatorships; appeasement; the road to World War II. Four credits. Cary

History 54 — Europe in the 20th Century, II Spring

World War II, the Holocaust, science and government, Cold War, the division of Europe, the revival of west-European democracy, de-Nazification, post Stalin Russia, decolonization, the 'economic miracle,' European integration, Berlin crises, Christian democracy, Gaullism, the sixties, the Prauge Spring, Ostpolitik, the Green movement, perestroika, the collapse of communism in eastern Europe. Four credits. Cary

History 59 — Intellectual History of 19th Century Europe Alternate years in fall, not offered this year

In this course the intellectuals' response to industrial, urban society will be examined. Romantics sought escape from it; socialists plotted its overthrow; nationalists dreamed of transcending it; sociologists analyzed it; and novelists described it in careful detail. Among the authors to be read are: Marx and Engels, Turgenev, Dickens, Zola, Mazzini, Nietzsche, Bronte, Sorel, Mill, and Galsworthy. Four credits. Holmes

History 60 — Intellectual History of 20th Century Europe Alternate years in spring, not offered

In this course some modern intellectuals' views of human nature will be discussed. Psychologists reduced it to drives and instincts; theologians elevated it as a creation of God; fascists submerged it in collectivism; and communists sought to reform it. Some authors to be read are: Freud, Lenin, deGard, Mann, Gramsci, Celine, Woolf, Buber, Hesse, and Camus. Four credits. Holmes

History 71 — The West and a Wider World, 1200-1600 (formerly History 183) Alternate years in fall, not offered this year

The rise of capitalism, the expansion of territorial monarchies, and the evolution of superior maritime capabilities in Western Europe provide the foundation for an examination of early European interaction with non-Western and non-Christian peoples. Beginning with Christian Crusades for the recovery of the Holy Land, the course will focus upon Portuguese intrusions upon Africa and Asia, Spanish conquest in the Americas, the Dutch imperium in the East Indies, and Anglo-French penetration of North America and the Caribbean. Four credits. Green

History 72 — The West and a Wider World, 1600-1800 (formerly History 184) Alternate years in spring, not offered this year

The evolving political, economic and social structure of Europe will provide a basis for assessing the expansion of Europe's imperial power in the outer world. Emphasis will be given to competitive mercantilist empires in the Atlantic basin, to slave systems in the Western Hemisphere, and to the consolidation of European power in India. The principal objective of the course is to evaluate how and why the West acquired an unprecedented and unparalleled position of dominance in the world after 1600. Four credits. Green

History 73 — Islamic History and Civilization (formerly History 190) Fall; not offered this year The course will treat selected topics in Islamic history and civilization from the rise of Islam to the present, exploring major political, religious, social, and intellectual themes. Cross-registered in the Department of Religious Studies as Religious Studies 90. Four credits, Esposito

History 85 — The American Social Gospel (formerly History 191) Alternate years in fall; not offered this year

This course will examine the response of Catholic and Protestant churches in the United States to the problems of industrial society. The heart of the course will be the writings of the major Christian theologians and the statements of the major Protestant denominations. This is a course in American intellectual and social history, locating the development of Christian social and political thought in the context of the problems posed by rapid economic expansion, trade unionism and socialism, urbanization, poverty, racism and war. Four credits. *O'Brien*

History 86 — Catholicism, Capitalism and Democracy (formerly History 192) Alternate years in spring

This course will examine the development of modern Catholic social and political thought from Leo XIII to John Paul II. The major social encyclicals of the modern Popes, together with other major currents of Catholic social thought, will be examined in their historical context, locating the intellectual setting, the political, social and economic problems which faced the church, the different understandings of Christian responsibility which appeared in various countries, and the major figures who shaped the public consciousness of the church in modern times. Four credits, O'Brien

History 87 - Catholicism in the United States (formerly History 197) Fall

An historical examination of the development of the Catholic Church and its people in the U.S. Particular attention will be devoted to issues of church and society in the contemporary American Church as they have developed since the 19th century. Cross-registered in the Department of Religious Studies as Religious Studies 88. Four credits. *O'Brien*

History 88 — Issues in American Catholic History (formerly History 198) Spring; not offered this year

Problems in contemporary American Catholicism examined in an historical context. Examples of such problems are church and state, episcopal collegiality, parish life and ministry, war and peace, and Catholic social action. The goal of the course is to become capable of participating in intelligent public dialogue on matters of significance within the church. Completion of 'Catholicism in the United States' or permission of the instructor is required. Cross-registered in the Department of Religious Studies as Religious Studies 89. Four credits. O'Brien

History 95 — Great Leaders (formerly History 195) Alternate years in fall; not offered this year A biographical study of leadership on the international scene as reflected in the persons who have shaped the social, political, intellectual, religious, and economic history of the 20th century. Four credits. Lapomarda

History 98 — Women's History I: 1500-1848 Alternate years in fall; not offered this year Beginning with Christine de Pisan's appeal in The City of Women (1404) that the voices of women be heard in history, this course will focus on a series of topics in the history of the 'second sex'. Among the problems to be discussed are the scientific and philosophical traditions which identified women with their sexuality; the effect of the Reformation of the sixteenth century on love, courtship, and marriage; child-bearing and child-rearing in early modern Europe; the role of female religious orders; the work of women both within and outside the household; historical roots of anorexia; lesbianism and cross-dressing; the movement for women's rights in the era of the French Revolution; the influence of Romanticism on love and marriage; and the sexual revolution of the late eighteenth and early nineteenth centuries. Four credits. McBride

History 99 — Women's History II: From 1848-the 1980s (formerly History 199) Alternate years in spring

The second half of the course will cover topics in the history of women in France, England, Germany, Russia and the United States beginning with the revolutions of 1848 and the convention for women's suffrage at Seneca Falls, NY. Among the topics to be discussed are: medical views of female sexuality; adultery, prostitution, and Victorian morality; contraception, infanticide, abortion; the domestication of women in the nineteenth century; changes in women's work with the industrial age; women's education and women's entry into the professions; the campaign for women's suffrage in England and America; Marxism, socialist feminism and the Russian revolution; the impact of World War I, the sexual revolution of the 1920s and the New Woman; women under totalitarian states in Italy and Germany in the 1930s and 1940s; and some aspects of feminism in the 1960s and 1980s. Four credits. *McBride*

History 101 — Colonial America Alternate years in fall; not offered this year

The exploration, settlement, and development of North America from the late 15th to the mid-18th century. Special emphasis: comparative analysis of the backgrounds, goals, and accomplishments of the original colonists; social structure, economic development, and religious life; immigration and white servitude; slavery; Indian-white relations; and development of the British imperial system. Four credits. *Beales*

History 102 — The Age of the American Revolution, 1763-1815 Alternate years in spring; not offered this year

The American Revolution and independence in the context of Anglo-American ideas and institutions. Special emphasis: imperial reorganization after the Seven Years' War; colonial resistance and loyalty; revolutionary ideology; social and political consequences of the Revolution; Confederation and Constitution; political parties under Washington, Adams, and Jefferson; and impact of the French Revolution and Napoleonic Wars on the U.S. Four credits. *Beales*

History 103 — Age of Jackson: 1815-1860 Alternate years in spring; not offered this year American life and politics between the time of the Founding Fathers and the Civil War. Emphasis will be given to Jackson's role as a national hero and political leader, constitutional issues, political and economic developents, continental expansion, ante-bellum literature, social life, and reform, and the breakup of the Jacksonian consensus over the issue of slavery. Four credits. Kuzniewski

History 104 — History of the Civil War and Reconstruction Spring

An examination of the background and causes of the U.S. Civil War, the course of the War itself, and the reconstruction following it. The post-Civil War Black experience around which so much of the reconstruction centered will be followed into the 20th century. Four credits. *Holmes*

History 105, 106 — U.S. in the 20th Century Both semesters

A study of the salient political, social, economic, and cultural developments in the history of the U.S. from the end of the 19th century to the recent past. Eight credits. *Brandfon, Anderson*

History 107 — 19th Century U.S. Diplomacy Fall

A study of the foundations and development of American diplomacy to the turn of the 20th century. Four credits. *Lapomarda*

History 108 — 20th Century U.S. Diplomacy Spring

A study of the foreign policies and relations of the U.S. with respect to the nations of the Americas, Europe, Asia, the Middle East, and Africa, with an emphasis on the American presidents and their secretaries of state from the turn of the century to the present. Four credits. *Lapomarda*

History 109, 110 — Problems in American Political History Both semesters; not offered this year A two-semester course which deals with a number of issues in American political history. The first semester deals with nineteenth century issues and the second semester those of the twentieth century. Typical issues would include the rise of a party system, the development of a political opposition, the nature of political culture. Eight credits. Anderson

History 113 — Economic History of the United States Fall

This course investigates the development of the American economy from colonial days to the present. Special emphasis is placed on the pattern of economic growth, in particular the interplay of economic principles and institutional forces shaping the transition from an agricultural to an industrialized economy. Prerequisites: Economics 11, 12. Four credits. *Sullivan*

History 111, 112 — American Social and Intellectual History Alternate years both semesters An interdisciplinary examination of the political, economic, religious, social, and cultural development of the American mind from the discovery of America to the present. Eight credits. Holmes

History 115 — The Idea of American History Alternate years in spring; not offered this year In this course writings of the major American historians are examined in terms of the sources and development of their thought and the uses which Americans made of their ideas. Historiography thus takes the form of intellectual history, and the objective is to become familiar with a most important expression of American national self-consciousness. Four credits. O'Brien

History 116 — American Religious History Alternate years in fall; not offered this year A study of the American religious experience from colonial times to the present with an emphasis on the major religions, persons, institutions, and movements. Cross-registered in the Department of Religious Studies as Religious Studies 105. Four credits. Lapormada

History 119, 120 - Afro-American History Both semesters

Examines African roots, the nature of slavery, and the resistance that grew out of the black family and church. Second semester deals with the failures of Southern Reconstructionism, traces black migrations to the urban north, charts the development and triumph of the Civil Rights movements, and discusses problems that remain in building an egalitarian, multiracial American society for the future. Eight credits. *Letwin*

History 121 — American Urban History Alternate years in spring; not offered this year A study of the role of cities in American life and thought from the colonial period to the present, with emphasis on the popular experience of city life, the evolution of municipal government, the organization of urban space, the emergence of suburbs and inner city ghettoes, and visions of the ideal city in the United States. Four credits. Kuzniewski

History 122 — U.S. in the World Wars Alternate years in spring; not offered this year Compares American involvement in both World Wars, and the American contribution to victory. Emphasis will be on the political, economic, intellectual, and social effects on American society. Four credits. Brandfon

History 127 — American Immigration to 1882 Alternate years in fall

A survey of immigration from the colonial period to the era of the Civil War. Topics include colonial immigration and the emergence of an American identity; nineteenth century immigration from Ireland, Germany, Scandinavia, and China; nineteenth century nativism; Asian immigration and the Chinese Exclusion Act of 1882. Four credits. *Kuzniewski*

History 128 — American Immigration since 1882 Alternate years in spring

A survey of immigration since the era of the Civil War. Topics include 'new' immigrantion from southern and eastern Europe; the growth of sentiment for immigration restriction; assimilation in the wake of the National Origins Act of 1924; refugee immigrants; Hispanic-American and Asian immigrants; and immigration legislation since 1945. Four credits. *Kuzniewski*

History 129, 130 — U.S. Business and Industrial History Alternate years both semesters; not offered this year

The business and industrial history of America from colonial times to the present, with particular emphasis on the years between the Industrial Revolution of the first half of the 19th

century and the "modern world of enterprise." The nation's business and industrial development will be presented within the framework of its overall social, political, economic, intellectual, and cultural history. Eight credits. *Holmes*

History 131, 132 — Medieval England I, II Alternate years both semesters; not offered this year A detailed survey of the political, social, cultural, and intellectual history of Britain from the Roman invasion, through the Romans, Saxons, and Normans to the reign of Henry VII. Eight credits. Attreed

History 135 — Early Modern England, 1471-1629 Alternate years in fall; not offered this year A study of the significant developments between the battle of Barnet and Charles I's personal rule: the creation of a strong monarchy, the rise of Parliament and its challenge to the monarchy, the break with Rome and resulting religious difficulties, the flowering of civilization during the Elizabethan period, the beginnings of the British Empire, and the background of the 17th-century revolutions. Four credits. Wall

History 136 — Early Modern England, 1629-1783 Alternate years in spring; not offered this year A study of the significant developments from Charles I's personal rule through the War of the American Revolution: the revolutions of the 17th century; the establishment of political stability; the rise of the aristocracy; changing relations among king, ministers and Parliament; the waning of religious bitterness; the origins of humanitarianism; the development of the Empire. Four credits. Wall

History 137 — Tudor England Not offered this year

Offered only as part of the ISP Sequence, England: Genesis of a Culture, this course, in conjunction with the other courses in the Sequence, attempts to explain the origins and early development of that part of Western Civilization known as England. Emphasis in the course will be on monarchy, Parliament, religion, and foreign policy as both unifying and divisive issues. Four credits. Wall

History 139 — England and the British Empire, 1783-1901 Alternate years in fall

This course examines the recovery of Britain after the American Revolution, the country's struggle against Napoleonic France, and its development as the first great industrial nation. Social reform, the evolution of parliamentary government, and the problem of Irish nationalism are treated. Particular attention is given to imperial topics:-the founding of the British Empire of India, the opening of Australia, the "New Imperialism" and British conquest in Sub-Saharan Africa. Four credits. *Green*

History 140 - Britain and the Empire in the 20th Century Alternate years in spring

Social currents in the Edwardian Era provide background for domestic struggles in the pre-war period, particularly those involving women's suffrage, working-class solidarity, and the Irish Question. World War I, interwar diplomacy, the depression, World War II, and the rise of the welfare state are treated. Special emphasis is given to the expansion of empire during World War I, the transition from Empire to Commonwealth in the interwar period, and the process of decolonization in the wake of World War II. The course examines postwar economic crises and British entry to the European Economic Community. Four credits. *Green*

History 143, 144 — History of Spain I, II (formerly History 147, 148) Alternate years both semesters

A study of the historical evolution of the peoples of the Iberian Peninsula from their Roman origins to the emergence of modern Spain in the 20th century. Emphasis will be placed on political, social, and economic developments, with the reigns of Ferdinand and Isabella dividing the two semesters. Eight credits. *Powers*

History 147 — History of Poland (formerly History 67) Every three years in fall; not offered this year

Development of the nations and peoples joined in the lands of the Polish-Lithuanian Commonwealth. Approximately equal attention to the development of the commonwealth to the era of partitions, partitioned Poland 1795-1918, and "independent" Poland since World War I. Four credits. Flynn

History 148 — The Hapsburg Empire (formerly History 68) *Spring; not offered this year* Development of the dynastic state ruled from Vienna and the peoples joined in it. Approximately equal attention to the early formation of a "great power" and the 18th-century revolutions, the supra-national state from the Napoleonic era to 1918, and the Hapsburg Legacy: Austria, Hungary, Czechoslovakia since World War I. Four credits. *Flynn*

History 149 — Poland and Ireland in the 19th Century (formerly History 70) *Alternate years in fall*

Comparative study of the development of the Polish and Irish nations, from the defeat of their reformer-revolutionaries in the late 18th century to the achievement of independent nation states in 1922-23. Focus on these examples of emerging nations whose political and economic development involved cultural conflicts between affluent and less developed countries and whose struggles helped promote the breakdown of empires in the modern world. Four credits. Flynn

History 151 — History of Russia to 1905 Alternate years in fall

This course studies three main stages in the history of Russia: (1) the development of civilization in Russia from origins to 1700, (2) the building of a westernized Russian empire, 1700 to 1855, (3) the era of Great Reforms to the onset of the Revolutions, 1855 to 1905. Four Credits. Flynn

History 152 — Twentieth-Century Russia Alternate years in spring

This course studies the main stages in Russia's twentieth century experience: (1) the Russian Revolutions, 1905-1921, (2) the development of a new order, the Soviet Union, 1921-1941, (3) World War II and the emergence of the Soviet super power, since 1941. Four credits. Flynn

History 155 — Introduction to Russian Studies Alternate years in fall; not offered this year An interdisciplinary study of Russian civilization, offered every other year. The course covers a theme (such as Russia and the West or the Russian Revolution), using the methodologies of literature, history and political science. Required of Russian Studies majors and open to others. Cross-registered in the Department of Political Science as Political Science 256 and in the Department of Modern Languages and Literatures as Russian 251. Four credits. Flynn.

History 160 — The Reformation in Germany Alternate years in fall; not offered this year This course focuses on the Reformation in the German-speaking countries by examining the interplay of intellectual, social and political forces that brought about profound changes in the sixteenth century. Topics discussed include: Martin Luther's evangelical thrust; humanism and the Reformation; Erasmus and Luther; the radical wing (Munzer and Karlstadt); the Anabaptists; the Imperial Knights' Revolt; the Peasants' War; the Reformation in the cities; Zqingli in Zurich; Calvin and the Calvinists; art as visual propaganda; Catholic reform and the Counter-Reformation; the legacy of the Reformation; the rise of the territorial states. Four credits. Bernstein.

History 161 — Germany: Bismarck to Brandt and Ulbricht (formerly History 172) Alternate years in fall

Conservative change under Bismarck, the development of Social Democracy under Bebel, Wilhelm II and the First World War, German opposition to the war, the November Revolution of 1918, democracy by default: the Weimar Republic, the rise of Hitler and the collapse of liberal democracy, the Nazi State, and an exercise in comparative history: East and West Germany since 1945. Four credits. *Cary*

History 167 — History of Modern Italy (formerly History 177) Alternate years in spring; not offered this year

This course will examine 19th and 20th century Italian history, focusing on Italy as it gained major status as an economic, political, and cultural force in the modern world. Topics considered are unification; the failure of republican forms; and rise of Mussolini and Fascism; Italy's role in World War II and Italian resistance to Fascism; Italian communism and the 'historic compromise;' economic recovery; 1968 and challenges from the left and right; and Italy today. Four credits. *Ruggiero*

History 172 - Medieval France Alternate years in spring; not offered this year

This course examines the political, social and cultural developments in France from the age of Roman Gaul, through the Frankish and Capetian monarchies, into the Valois dynasty, 'New Monarchy' and the invasion of Italy by Charles VIII in 1494. Stress will be placed on the institutional development of the state, the vital role of Christianity in the religious, political and intellectual life of France, the evolution of social life and social classes, and the rich artistic and architectural heritage of this era in French history. Four credits. *Attreed, Powers*

History 174 — Early Modern France Every three years in fall

From the age of the religious wars to the Enlightenment, France was at the center of European political changes. This course will study the politics, society and culture of early modern France from 1515 to 1750. Four credits. *McBride*

History 175 — French Revolution and Napoleon Fall; not offered this year

From the Enlightenment to the Revolutions of 1789 and 1830, and the Second Republic of 1848, the 19th century in France contains the source of much of European and western civilization. The course will focus on the history of the French Revolution, its causes and effects, and the historical controversy which continues to surround almost every aspect of the Revolution. Four credits. *McBride*

History 176 — Modern France Fall

France from the Second Empire of Napoleon III through the social revolution of 1968 was a culture in transition toward an industrial economy and a more egalitarian society. Self-appointed arbiter of European culture, France has produced grand designs for social change, artistic Impressionism, literary modernism, and a new role for political Catholicism. Four credits. *McBride*

History 177 — Social History and the French Novel/Le Roman français comme histoire social (formerly History 174) Every three years in spring; not offered this year

In the period between 1815 and 1914, France evolved from a feudal-agrarian society into a modern, industrial, bureaucratic state. The literature and art of this period reflect the changing social patterns and evolving sensibilities from the romantic age to the First World War. The course will consist of the reading of several French novels and works on the social and cultural history of 19th-century France. Taught in French. Four credits. *McBride*

History 181 — Imperial China (formerly History 188) Alternate years in fall

This course surveys Chinese history and culture from the classical period through the last empire. We will follow several themes throughout the class that will demonstrate how the tradition changes—and remain intact in some instances—in response to social and economic changes. Films, biographies, historical and philosophical writings, and western interpretations of events and personalities will offer students a variety of perspectives. Four credits. *Turner*

History 182 — Revolutionary China (formerly History 187) Alternate years in spring

This course introduces students to events, personalities, and concepts of particular significance for understanding China's 20th century history. It covers the period from 1949 through the present in some detail through a variety of documentary sources, interpretive accounts and literature. Four credits. *Turner*

History 183 — Economic Development of Modern China Alternate years in spring; not offered this year

The goal of this course is to provide the student with a sophisticated understanding of economic development in the People's Republic of China. The historical circumstances and resource endowments which have constrained Chinese economic development are examined as a basis for analyzing the intentions and success of policies adopted since 1949. Prerequisites: Economics 11, 12, or permission. Four credits. *Gottschang*

History 189 — The Warrior Tradition in Japan Alternate years in fall

The course uses the theme of the warrior tradition to examine important trends in Japanese society from the medieval period through the present. A major goal of the course is to examine how the West has viewed the samurai as well as to look at how Japanese perceptions of the warrior have changed over time. The course concludes with an evaluation of the importance of the warrior ethic in contemporary Japanese business and politics. Four credits. *Turner*

History 191 — History of Brazil (formerly History 81) Alternate years in fall; not offered this year Surveys the history of Brazil from the 16th century to today. Topics considered are the patterns of settlement, economic exploitation, and race relations; religious and political institutions; cultural traditions; the dynamics of political change in Brazil from 1930 to the present; and Brazil's current quest for international leadership. Four credits. *Ruggiero*

History 193 — History of the Southern Cone (formerly History 83) Alternate years in spring; not offered this year

Surveys the history of Argentina, Uruguay, Paraguay, and Chile from the 16th century to today. Topics considered are Argentina as a divided land; Uruguay's reputation as the Switzerland of Latin America; Paraguay as a country of paradox; and Chile's aborted revolution. Four credits. Ruggiero.

History 199 — Revolutions in Latin America (formerly History 79) Alternate years in fall; not offered this year

Examines the major forces that shaped and are now reshaping Latin America, and the historical reasons for the present problems which trouble the area. This course looks at problems and groups common to all Latin America, as well as at specific cases of revolutionary change in Mexico, Central America and Cuba, Brazil and the Southern Cone. Four credits. Ruggiero.

History 201 — Seminar in American History

An intensive research oriented study, limited to 12 participants. Four credits.

History 202 — Seminar in Latin American History

An intensive research oriented study, limited to 12 participants. Four credits.

History 203 — Seminar in Pre-Modern History

An intensive research oriented study, limited to 12 participants. Four credits.

History 204 — Seminar in Modern History

An intensive research oriented study, limited to 12 participants. Four credits.

History 205 — Seminar in Asian History

An intensive research oriented study, limited to 12 participants. Four credits.

History 206 — Seminar in Historiography An intensive research oriented study, limited to 12 participants. Four credits. *Staff*

History 207 — Tutorial

Reading of selected sources, with individual written reports and discussion, under the direction of a member of the department. Students enrolled in a tutorial must receive the approval of the department chair. Four credits.

History 208 — Tutorial

Reading of selected sources, with individual written reports and discussion, under the direction of a member of the department. Students enrolled in a tutorial must receive the approval of the department chair. (This is not a continuation of 207). Four credits.

History 209 — Colloquium

Limited to an enrollment of 12 students, this course emphasizes reading, discussion, and writing on a topic selected by the instructor. Three places are reserved for non-majors; preference will be given to students who have not already taken a colloquium. Four credits.

History 210 — Colloquium

Limited to an enrollment of 12 students, this course emphasizes reading, discussion, and writing on a topic selected by the instructor. Three places are reserved for non-majors; preference will be given to students who have not already taken a colloquium. (This is not a continuation of 209). Four credits.

History 211 — Colloquium in American History

Limited to an enrollment of 12 students, this course emphasizes reading, discussion, and writing on a topic in American History. Three places are reserved for non-majors; preference will be given to students who have not already taken a colloquium. Four credits.

History 212 — Colloquium in Latin American History

Limited to an enrollment of 12 students, this course emphasizes reading, discussion, and writing on a topic in Latin American History. Three places are reserved for non-majors; preference will be given to students who have not already taken a colloquium. Four credits.

History 213 — Colloquium in Pre-Modern History

Limited to an enrollment of 12 students, this course emphasizes reading, discussion, and writing on a topic in Pre-Modern History. Three places are reserved for non-majors; preference will be given to students who have not already taken a colloquium. Four credits.

History 214 — Colloquium in Modern History

Limited to an enrollment of 12 students, this course emphasizes reading, discussion, and writing on a topic in Modern History. Three places are reserved for non-majors; preference will be given to students who have not already taken a colloquium. Four credits.

History 215 — Colloquium in Asian History

Limited to an enrollment of 12 students, this course emphasizes reading, discussion, and writing on a topic in Asian History. Three places are reserved for non-majors; preference will be given to students who have not already taken a colloquium. Four credits.

History 220-221 — Senior Thesis Both semesters

An individual, student designed, professor directed, major research project. Usually available only to outstanding senior majors. A lengthy final paper and public presentation are expected. Eight credits. Staff

History 295, 296 — History Honors Thesis Both semesters

An individual, student designed, professor directed, major research project open to members of the History Honors Program. A substantial final paper and public presentation are expected. Eight credits. Staff

Interdisciplinary Studies Program

"True enlargement of the mind," John Henry Newman wrote in the *Idea of a University*, "is the power of viewing things at once as a whole...of understanding their respective values, and detertining their mutual dependence." This program, originally funded by a major Development Grant from the National Endowment for the Humanities, offers a variety of carefully planned interdisciplinary courses directed toward the goal of the integrated learning that Newman saw as an essential aspect of a liberal education.

Interdisciplinary courses encourage classroom discussion by inviting students to explore a single topic from multiple perspectives. Whether comparing psychological and anthropological approaches to art, theories of interpretation in physics and religious studies, or literary and artistic dimensions of the renaissance court, students and faculty join together in a process of crit-

ical thinking and shared learning.

Each interdisciplinary offering is team-taught by instructors from different departments. Typically, sequences are taken as a unit of paired classes, with students and faculty participating in both courses, but in somes cases, an offering may involve a single, team-taught class. In either case, the aim is to clarify the nature of the various academic disciplines in the sequence while emphasizing their interrelatedness in an integrated learning experience. ISP classes also provide a particularly rich learning environment through guest lectures, films, and field trips to historic sites and museums such as Sturbridge Village, the Worcester Art Museum, and Boston's Museum of Fine Arts. These activities, together with joint classes, help foster a sense of a community of learning.

The Interdisciplinary Studies Program complements both the College's distribution requirements and free-elective system. Normally each course counts toward the fulfillment of the major in its department. By enrolling in a sequence students may satisfy a requirement in their major and have access to related courses in other departments which will satisfy distribution

requirements.

Since its beginning in 1974-75, the program has developed 40 interdisciplinary courses and sequences. While only selected sequences can be offered in a single academic year, the following are representative of recent and current offerings:

Romanticism and Liberalism (for freshmen — English, History)

Living in the Modern World (for freshmen — Psychology, Sociology)

Interpreting and Making the World (Philosophy, Physics)

Literature and the Bible (English, Religious Studies)

Environmental Problems: Causes and Effects (Biology, Chemistry)

Pre-Literature: Song and Story in Oral Culture (Classics, English)

Introduction to Peace and Conflict Studies (History, Philosophy, Political Science, and Religious Studies)

The Court in Renaissance Art and Literature (English and Visual Art)

Anthropology and Psychology of Art (Anthropology and Psychology)

Reading Nature, Reading the Bible (Physics, Religious Studies)

Mathematics

Thomas E. Cecil, Ph.D., Professor Peter Perkins, Ph.D., Professor Patrick Shanahan, Ph.D., Professor

David B. Damiano, Ph.D., Associate Professor Daniel G. Dewey, M.A., Associate Professor John B. Little III., Ph.D., Associate Professor Rev. John J. MacDonnell, S.J., Ph.D., Associate Professor Leonard C. Sulski, Ph.D., Associate Professor Melvin C. Tews, Ph.D., Associate Professor and Chair John T. Anderson, Ph.D., Assistant Professor Thomas W. Dube, Ph.D., Assistant Professor Margaret N. Freije, Ph.D., Assistant Professor Mohammad Salmassi, Ph.D., Assistant Professor Leon D. Fairbanks, Ph.D., Visiting Assistant Professor Ellen J. Keohane, A.B., Lecturer Kenneth A. Scott, M.N.S., Lecturer Joel R. Villa, B.S., Lecturer Rev. Andrew P. Whitman, S.J., Ph.D., Lecturer

The program in mathematics at Holy Cross is based upon an awareness of the increasing contribution of mathematics to many areas of contemporary culture. Mathematics has always been the language of natural science and technology; in the past few decades its influence and techniques have become pervasive in the social, behavioral, and management sciences as well. The course of study in mathematics at Holy Cross is designed to acquaint the student with a broad range of basic concepts and tools of modern mathematics and to develop an appreciation of the beauty of mathematics and its power in application.

There are two tracks available to students who want to major in the mathematical sciences: the mathematics major and the mathematics major with computer science concentration. We first list the requirements for the mathematics major and then those for the computer science concentrators. In both cases, computing courses do not count toward the maximum number of courses

which may be taken in one department.

The mathematics majors normally begin their studies with the four-semester Principles of Analysis sequence, a solid grounding in the differential and integral calculus of functions of one and several variables. The major must also take Linear Algebra 1 (Math 43) followed by either Linear Algebra 2 (Math 44) or Discrete Mathematics (Math 46) in preparation for more advanced courses. Including these basic courses, the major is required to take a minimum of 10 semester courses, four of which must be numbered above 100 and must include a semester of abstract algebra and a full-year course chosen from the general offerings in algebra, analysis, geometry, and applied mathematics. Seminars, independent study projects, and departmental honors allow the especially able student to explore advanced topics and work with faculty members in their special areas of interest.

The mathematics requirements for the computer science concentrators are the same as those given above with the following exceptions: nine semester courses in mathematics are required instead of 10, and these must include Discrete Mathematics (Math 46). In addition, the com-Puter science concentrator must take a minimum of four computer science courses including

CS61, 62 and two advanced courses chosen from CS181, 182, 183.

Interested students also may take advanced courses in computer science at Worcester Polytechnic Institute and Clark University through the cross registration program of the Worcester Consortium. Facilities available for study and research in mathematics are excellent. The O'Callahan Science Library in the new Swords Science Center and the College's extensive major com-Puting facilities are described elsewhere in the catalog.

Departmental Honors Program

The program has two levels of distinction, Honors and High Honors. Each requires that the student develop a solid foundation in the core areas of real analysis and algebra and that the student builds on this foundation by taking a full complement of courses within the department. High Honors is distinguished from Honors by the successful completion of a senior honors thesis. Any questions concerning the program should be directed to the Departmental Honors Program director or the Department Chair.

Requirements for both Honors and High Honors:

Course Requirements (For Honors and High Honors)

Eight courses beyond 31-32, 41-42, 43-44/46

These eight must include two semesters of abstract algebra (151-152 or Seminar in Algebra), two semesters of real analysis (161-162 or Seminar in Analysis) and at least three seminar courses (201, 202), two of which must be either the Seminar in Algebra or the Seminar in Analysis. Exceptions to some of these requirements may be possible for students who participate in the Junior Year Abroad Program. Students going JYA and considering this Honors Program should consult with the Departmental Honors Program director before leaving for JYA concerning any modifications of these requirements.

QPI Requirements (For Honors and High Honors)

The average QPI for mathematics courses above the level of 31-32 must be at least 3.4 at the end of the fall semester of the senior year.

Senior Presentation (For Honors)

During the senior year all Honors majors must give an oral presentation open to the department and majors on an important problem or result from a (long) relatively fixed list. This may be related to their course work but it is not intended to duplicate material normally in the curriculum. Neither is this intended to be a large-scale project. The goal is to insure a certain degree of mathematical literacy among the Honors majors. Some topics on the list are the Poincare' Conjecture, Godel's Incompleteness Theorem, the Riemann Hypothesis, the Riemann Mapping Theorem and any of the Hilbert Problems.

Senior Honors Thesis (For High Honors)

This is a large project extending over the course of the senior year. This can either consist of original research or be of an expository nature and is written under the guidance of one or more members of the department. This project should entail a significant amount of problem solving. It will culminate in an oral presentation during the spring term of the senior year, which will be accompanied by a written report of the year's work. Normally, a student will earn four credits in the spring semester of the senior year for successful completion of an honors thesis unless the thesis work is done as part of the student's participation in a departmental seminar. In the latter case, no extra credit will be given above the credit for the seminar itself.

Mathematics Courses

Mathematics 10 — Topics in Mathematics Both semesters

Consideration of diverse subjects in mathematics. Course content varies from semester to semester with specific subject matter for each course announced at preregistration. Designed for non-majors who wish to study mathematics other than calculus. Four credits. *Staff*

Mathematics 21 — Survey of Calculus Both semesters

Studies one variable functions — polynomial, rational, algebraic, exponential and logarithmic — with the associated algebra and geometry. The concepts of limit, continuity, derivative, and integral are developed and applied. This is a terminal course. Four credits. *Staff*

Mathematics 22 — Introductory Probability Spring

Considers the basic ideas of probability: sets, combinatorics, sample spaces, probability measures, conditional probability, random variables, Markov chains, the normal distribution, and the central limit theorem. Four credits. *Staff*

Mathematics 25, 26 — Calculus 1, 2 Offered annually

A two-semester introduction to the calculus of one and several variables primarily intended for students majoring in Economics. Topics discussed include elementary linear and matrix algebra, differentiation and integration of real valued functions of one real variable, techniques of integration and differentiation, max-min problems and improper integrals. A brief introduction is given to functions of several variables including applications to constrained optimization problems. This is a terminal course. Eight credits. Staff

Mathematics 31, 32 — Principles of Analysis I, II 31 in Fall; 32 Both semesters

Considers the calculus of real functions of one variable for students who are planning to take further work in mathematics. The concepts of limit, continuity, derivative and integral are developed. It studies the integral and differential calculus of the algebraic, logarithmic, exponential and trigonometric functions, max-min problems and a brief introduction to elementary differential equations. The second term includes inverse trigonometric and hyperbolic functions, techniques of integration, infinite sequences and series, and Taylor series with applications in the sciences. This course is the prerequisite for Mathematics 41, 42. Eight credits. Staff

Mathematics 41, 42 — Principles of Analysis III, IV Each course Both semesters

A study of the calculus of functions of several variables. Topics include the geometry of ndimensional space, partial derivatives, gradients, differentials, the chain rule, max-min problems, multiple integrals and transformation of coordinates, line and surface integrals, Green's and Stokes' theorems, and an introduction to differential equations. Prerequisite: Mathematics 32. Eight credits. *Staff*

Mathematics 43, 44 — Linear Algebra I, II Offered annually

Designed to acquaint students with the basic techniques of linear algebra. Topics include matrices, vector spaces, subspaces, quotient spaces, dual spaces, linear transformations, bilinear forms, determinants, eigenvalue theory, canonical forms, and the finite dimensional spectral theorem. Applications and additional topics are included as time permits. Eight credits. Staff

Mathematics 46 — Discrete Mathematics Spring

Covers topics in discrete mathematics with applications to mathematical modelling or computer science, while allowing the student to develop skills in problem solving and theorem proving. Topics considered include elementary logic combinatorics, lattices, boolean algebras and graph theory. Prerequisite: Mathematics 43. Four credits. Staff

Mathematics 99 — History and Development of Mathematical Ideas Irregular

Designed for the non-major and develops from a historical and evolutionary point of view a number of important ideas which have significant implications for an understanding of contemporary mathematics. Topics include the Greek crisis of number, the discovery of non-Euclidean geometries, the evolution of algebraic structures, Galois theory and the group concept, and the hierarchy of infinites. Open to non-majors only. Four credits. Staff

Mathematics 101 — Topics in Geometry Alternate years; not offered this year

Centers on some area of geometry other than differential geometry. Possible topics include Euclidean and non-Euclidean geometry, projective geometry, the geometry of transformation groups, and the elementary geometry of algebraic curves. Four credits. Staff

Mathematics 102 — Differential Geometry Alternate years in Fall

A first course in the differential geometry of curves and surfaces for students who have completed Math 42 and a semester course in linear algebra. Topics include the Frenet-Serret formulas, smooth surfaces in 3-space, fundamental forms, differentiable manifolds, vector fields, connections and a brief introduction to Riemannian geometry. Four credits. Staff

Mathematics 104 — Ordinary Differential Equations Alternate years; not offered this year Linear differential equations are studied; basic existence theorems are proved; equations with constant coefficients and series methods are treated in detail. Topics in non-linear systems are discussed, including existence and uniqueness theorems, series methods, and stability theory with an introduction to Lyapunov's direct methods. Four credits. Staff

Mathematics 141, 142 — Calculus on Manifolds Irregular

Deals with calculus on manifolds and assumes that the student has a strong background in linear algebra. Topics include: the calculus of vector-valued functions, the Frenet equations, steady flows, real-valued functions of several variables, line integrals, the differential, the implicit function theorem, tensor products and exterior algebra, differential forms, integrals of forms over singular chains, the deRham theorem. Eight credits. *Staff*

Mathematics 143 — Complex Analysis Alternate years in Spring

The fundamentals of complex analysis. Topics include the complex number system, analytic functions, the Cauchy-Riemann equations, Cauchy's integral theorem, Cauchy's integral formula, Taylor series, Laurent series, the calculus of residues and conformal mapping. Four credits. *Staff*

Mathematics 151, 152 - Abstract Algebra Offered annually

An introduction to groups, rings, fields, and Galois theory. Depending on the instructor, applications to homology, geometry, physics, number theory, etc., are presented. Eight credits. Staff

Mathematics 153 - Mathematical Models Alternate years; not offered this year

Content may vary somewhat year to year, but in general the topics are selected from the modeling of discrete phenomena. After a brief introduction to the concept of modeling, such topics as linear programming, game theory, graph theory, network flows and combinatorics are studied. Four credits. *Staff*

Mathematics 155 — Optimization Theory Irregular

An introduction to optimization. Topics include linear programming and duality, constrained and unconstrained non-linear problems, the Kuhn-Tucker conditions, iterative optimization techniques, and, if time permits, dynamic programming. Emphasis is placed on the geometric foundations common to these various methods of optimization. Four credits. *Staff*

Mathematics 161, 162 — Real and Abstract Analysis Alternate years

Topological ideas are introduced through a treatment of metric space topology. After the study of open, closed, compact and connected spaces with emphasis on their behavior under continuous mappings, selected topics from functional analysis are considered. These include lim sup and lim inf, relation of uniform convergence to differentiation and integration, and the Stone Weierstrass approximation theorem. The second semester topics include an introduction to Lebesgue-Stieltjes integration, Hilbert space and other material from linear space theory. Eight credits. *Staff*

Mathematics 163 — Topics in Topology Alternate years; not offered this year

Considers various aspects of topology of surfaces and solids, including orientability, the Euler number, and the fundamental group. One of the goals of the course is the topological classification of surfaces. Four credits. *Staff*

Mathematics 171, 172 — Methods of Numerical Analysis Alternate years

The numerical solution of problems using computers. Considerable time is devoted to selecting the appropriate algorithm for a given problem and analyzing the resulting numerical errors. Includes such topics as error analysis of computer arithmetic, approximation of functions, solution of linear and nonlinear equations, numerical integration, numerical solution of ordinary and partial differential equations, the fast Fourier transform, and the Monte Carlo method. Eight credits. *Staff*

Mathematics 173, 174 — Principles and Techniques of Applied Mathematics Alternate years; not offered this year

Provides an understanding of a wide spectrum of phenomena through the use of mathematical ideas, abstractions, and techniques. Topics included are ordinary differential equations, the heat equation, eigenvalue problems, partial differential equations, Poisson's theorem and examples, calculus of variations, Fourier analysis, and the inversion problem of Fourier series. Eight credits. *Staff*

Mathematics 175, 176 — Probability and Statistics Alternate years; not offered this year Provides an introduction to the theory and applications of probability and statistics. Topics in probability theory include both continuous and discrete distributions, conditional probability, random variables, expectation, and the Central Limit Theorem. Topics in statistics include maximum likelihood estimation, the sampling distributions of estimators, hypothesis testing,

regression analysis, and an introduction to the analysis of variance. Eight credits. Staff

Mathematics 201, 202 — Seminar Both semesters

Provides an opportunity for individual and group investigation of topics not covered in ordinary course work. Active participation on the part of the students is normally required. The subject matter varies to suit individual students and is often related to the research activity of the professor. Examples of areas of independent study: Lie groups, functional analysis, complex analysis, probability theory, commutative algebra, applied mathematics, the classical groups, mathematical logic, automata and formal languages, topics in discrete modeling, and qualitative theory of differential equations. Eight credits. Staff

Mathematics 295, 296 — Mathematics Honors Thesis Both semesters

This is a large project extending over the course of the senior year. It can consist of original research or be of an expository nature and is written under the guidance of one or more members of the department. Normally, a student will earn four credits in the spring semester of the senior year for successful completion of an honors thesis, unless the thesis work is done as part of the student's participation in a departmental seminar. In that case, no extra credit is given above the credit for the seminar itself. For a particularly extensive project, a student may earn four credits in each semester of the senior year for completion of the thesis with permission of the department chair. Staff

Computer Science Courses

Computer Science 50 — Introduction to Computing/PASCAL Both semesters

Although this course provides a detailed treatment of PASCAL, emphasis is placed on language-independent topics such as structured programming, good programming style, use of subprograms, searching and sorting techniques and algorithm construction in general. Other possible topics are: simulation, data structures, word processing and the social impact of computers. Four credits. *Staff*

Computer Science 51 — Introduction to Computing/FORTRAN Both semesters Same as CS50 except the language FORTRAN is used. Staff

Computer Science 52 — Intermediate Computing Spring

For those with more than an ordinary competence in CS50 or CS51, this course continues the student's education in computing by imparting extensive knowledge of structured programming using PL/1 coupled with significant projects in the laboratory. LISP and Prolog programming in the context of Artificial Intelligence is also covered, as well as special topics/discussions such as microcomputing and the social impact of computers. Four credits. Staff

Computer Science 61 — Techniques of Programming Fall

An intensive introduction to programming in PASCAL for students considering further course work in computing. It is expected that most of the class will continue with CS62, Data Structures. Although this course does cover much of the same ground as CS50, Introduction to Computing, the pace is somewhat faster, more topics are covered, and more of the programs considered may be of a mathematical nature. Four credits. *Staff*

Computer Science 62 — Data Structures Spring

Standard data structures such as stacks, lists, trees and graphs are introduced. Algorithms and techniques for sorting, searching, graph traversal, hashing and recursion are discussed. Analysis of algorithms and special topics are covered as time allows. Four credits. Staff

Computer Science 181 — Introduction to Computer Systems and Organization Alternate years in Spring

Fundamental topics related to the design and operation of a modern computing system, including basic logic design, microcode, assembly language, program segmentation and linking, memory management, and multi-tasking. Four credits. Staff

Computer Science 182 — Principles of Programming Languages Alternate years; not offered this year

Discusses principles for designing and implementing programming languages reflecting a variety of programming styles. Specific topics include language syntax methods of processing a program, establishing the run-time environment of the program and programming language paradigms (especially the procedural functional, logic and object-oriented paradigms). Four credits. Staff

Computer Science 183 — Theory of Computation Alternate years; not offered this year Basic aspects of regular and context-free languages, propositional and predicate calculus, automata theory and computational complexity. Four credits. Staff

Computer Science 184 — Topics in Computer Science Alternate years in Fall

A topics course gives the student a chance to see the principles introduced in earlier courses applied in specific areas, and it gives faculty an opportunity to teach material of special interest to them. The most likely topics are artificial intelligence, compiler design, operating systems, database systems, graphics, advanced theory of computation, and analysis of algorithms. Four credits. Staff

Modern Languages and Literatures

Eckhard Bernstein, Ph.D., Professor Theodore P. Fraser, Ph.D., Professor Normand J. Lamoureux, Ph.D., Professor Isabel Alvarez-Borland, Ph.D., Associate Professor and Chair Charles A. Baker, Ph.D., Associate Professor John T. Cull, Ph.D., Associate Professor Rev. Lionel P. Honoré, S.J., Ph.D. Associate Professor George N. Kostich, Ph.D., Associate Professor Jorge H. Valdés, Ph.D., Associate Professor William L. Zwiebel, Ph.D., Associate Professor Matthew J. Bailey, Ph.D., Assistant Professor Laurence Enjolras, Ph.D., Assistant Professor Claudia Ross, Ph.D., Assistant Professor Matthew J. Bailey, Cand. Ph.D., Instructor Jutta Arend-Bernstein, Ph.D., Visiting Assistant Professor Josefina Gonzalez, Ph.D., Visiting Assistant Professor Constance G. Schick, Ph.D., Visiting Assistant Professor Karin B.H. Beckett, Ph.D., Lecturer Rev. Alfred R. Desautels, S.J., Ph.D., Lecturer Esther L. Levine, M.A., Lecturer Charles Severens, A.B.D., Lecturer

Joan Weber, M.A., Lecturer Suzanne Branciforte, Cand. Ph.D., Instructor Natalia A. Reed, Cand. Ph.D., Instructor Hector Torres-Ayala, A.B.D., Visiting Instructor

The courses offered by the Department of Modern Languages and Literatures provide a rich means for the intellectual and aesthetic development of Holy Cross students through the study of foreign languages, literatures and cultures. While foreign languages play a key role in such international concentrations as Asian Studies, Latin American Studies and Russian studies, they lie at the very heart of the broader liberal arts curriculum and should be considered there-

fore by each student regardless of area of concentration.

The Department offers courses in Chinese, French, German, Italian, Russian and Spanish. Major programs, consisting of at least 10 semester courses on the intermediate level or above, are offered in French, German, Russian and Spanish. Students are assigned their own advisor within the department to help them devise their individual curriculum. Advisors see to it that students are aware of the College's many academic opportunities. They urge students to enrich and broaden their major programs by taking additional courses drawn from a wide range of humanistic and professionally oriented areas.

A Study Abroad Program in the major cities of Europe and Latin America as well as in the Near and Far East is open to qualified students. Also available are Soviet Union study programs in Moscow and Leningrad in cooperation with the American Council of Teachers of Russian. All students, and modern language majors in particular, are encouraged to avail themselves

of a period of study abroad.

Native teaching assistants are employed to assist faculty members at all levels of language instruction. A language resource center and extensive audio-visual facilities support and reinforce regular classroom activities. Course materials are complemented by a library of slides, films and video tapes which illustrate and animate the general cultural background in all the

languages.

The Department also offers a major program in European Literature. Courses are conducted in English and employ translated texts. The program is designed to introduce students to the best and most representative works of the major cultures of the Continent. Students are expected to develop a sufficient competence in at least one of the national languages to assure direct contact with the original texts.

Chinese

Chinese 11 — Elementary Chinese Fall

This course aims to acquaint students with the fundamentals of Chinese grammar, pronunciation, intonation and oral expression. Emphasis is also placed on acquiring a knowledge of Chinese culture and life through the medium of language. Five class hours weekly and laboratory practice. Five credits. Ross

Chinese 12 — Elementary Chinese Spring

A continuation of Chinese 11. Five class hours weekly and laboratory practice. Five credits. Ross

Chinese 21 — Intermediate Chinese Fall

A continuation of Elementary Chinese, with greater focus on speaking, writing and reading practice. Study of more complex aspects of the grammar. Longer readings and discussion of Chinese culture. For students who have completed Chinese 12. Five class hours weekly and laboratory practice. Five credits. Ross

Chinese 22 — Intermediate Chinese Spring

A continuation of Chinese 21. Five class hours weekly and laboratory practice. Five credits. Ross

Chinese 31 — Advanced Chinese Fall

Focuses on the reading of Chinese texts and the viewing of films at the level of difficulty appropriate for the students, and discussion and writing about these texts and films. Emphasis will be placed on the building of reading, writing, speaking and aural comprehension skills. Four credits. Staff

Chinese 32 — Advanced Chinese Spring

A continuation of Chinese 31. Four credits. Staff

French

French major requirements: a minimum of 10 courses on the intermediate level or above, including the following:

- 1. French 111 (Composition and Conversation)
- 2. French 117 (Introduction to French Literature)
- 3. One course in French culture
- 4. One French literature course from Middle Ages, Renaissance, 17th Century or 18th Century
- 5. One French literature course from 19th or 20th Century

At least one course must be taken in senior year.

French 11 — Elementary French Fall

Designed for students with no previous study of French, the aim of this course is the acquisition of a basic speaking, reading, and writing knowledge of idiomatic French. Five class hours weekly and laboratory practice. Five credits. *Staff*

French 12 — Elementary French Spring

A continuation of French 11. Five class hours weekly and laboratory practice. Five credits. Staff

French 21 — Intermediate French Fall

A review of the fundamentals of the language supplemented by reading of literary and cultural material and by practice in oral expression. For students who have completed French 12. Four class hours weekly and laboratory practice. Four credits. *Staff*

French 22 — Intermediate French Spring

A continuation of French 21. Four class hours weekly and laboratory practice. Four credits. Staff

French 111 — Composition and Conversation Both semesters

Designed for the student who wishes to gain proficiency in oral and written French. Emphasis is placed on developing correctness and fluency in everyday situations. Regular methods of instruction include dictation, phonetic transcriptions, discussions, debates, compositions and lab exercises. Required for French majors and recommended for freshmen with advanced placement. Prerequisite: French 22 or the equivalent. Conducted in French. Four credits. Staff

French 117 — Introduction to French Literature Spring

An introduction to literary genres as well as to approaches to analysis and interpretation of texts. Prerequisite: French 111. Conducted in French. Four credits. *Staff*

French 119 — Contemporary France Alternate years in the Fall

This course focuses on current issues in contemporary France. Politics, society, the artys, domestic and internation affairs, education, the media, "Europe in 1992," feminism, etc., are among the topics analyzed and discussed. Four credits. Conducted in French. *Enjolras*

French 201 — Advanced Composition and Conversation Spring

A course designed for students who have completed French 111 or its equivalent. Intensive practice of the four language skills. Four credits. *Staff*

French 203 — Syntax Alternate years

An appreciation of the structure of the French sentence through two types of analyses: analyse grammaticale and analyse logique. Prerequisite: French 111 or 201. Four credits. Lamoureux

French 211 — Introduction to French Poetry Alternate years

A critical study of French prosody and poetic practice with an analysis of poetical works drawn from Villon to the present. Conducted in French. Prerequisite: French 117. Four credits. Lamoureux

French 213 — French Literature from the Middle Ages to the Renaissance Alternate years A critical study of the major works and authors of the Middle Ages (including La Chanson de Roland, Chrétien de Troyes, Le Roman de Renart, La Farce de Maître Pathelin, Villon), and the major poets and prose writers of the Renaissance, including Rabelais, Du Bellay, Ronsard, Montaigne). Conducted in French. Four credits. Lamoureux

French 215 - The Classical Theater and its Aftermath Alternate years

Representative dramatic works of the 17th and 18th centuries are studied against the backgrounds of the dramatic theory from which they spring. The plays of Corneille, Molière and Racine are featured. Conducted in French. Four credits. Baker

French 217 — Eighteenth Century French Literature Alternate years

The course is an examination of the literature of the period as it relates to the changing social, intellectual and literary values that led to the French Revolution and its consequences. Authors treated include Beaumarchais, Saint-Pierre, Laclos, Lesage, Marivaux, Prévost, Montesquieu, Rousseau, Diderot, Sedaine, Voltaire. In French. Four credits. Honoré

French 219 — Nineteenth Century Novel Alternate years

A close examination of the French novel from 1800 to 1900, including such authors as Constant, Stendhal, Balzac, Flaubert, Maupassant, Huysmans, and Zola. Conducted in French. Four credits. Honoré

French 221 — Twentieth Century Theater Alternate years

The major trends and theories in the theater of this century are considered. The reading begins with examples of important 19th century plays and continues to the present period. Authors treated include Giraudoux, Beckett, Ionesco. Conducted in French. Four credits. Baker

French 223 — Twentieth Century Novel Alternate years

This course will explore the major literary movementws which have marked the century up to the present. Authors studied include Gide, Proust, Sartre, Collette, Camus, Breton, De Beauvoir, Beckett, Robbe-Grillet, Sauraute, Duras, Hyvrard, Modiano, Sollers, Wittig, Roche. Conducted in French. Four credits. Enjolras

French 233 — French Romanticism Alternate years

A study of the vision and sensibility shaped by writers of the Romantic period. Among the authors read are Chateaubriand, Lamartine, Vigny, Hugo, Musset, Balzac, and Sand. Conducted in French. Four credits. Fraser

French 235 — Les moralistes et les philosophes Occasionally

A critical study of principal prose writers from the 17th and 18th centuries. The moralistes: Descartes, Pascal, La Rochefoucauld, and La Bruyère: the philosophes: Montesquieu, Voltaire, Diderot, and Rousseau. Conducted in French. Four credits. Staff

French 241, 242 — Special Topics Occasionally

A special course offered either semester for the study of a literary genre, form, theme or problem. Conducted in French. Four credits per semester. Staff

French 251, 252 — Special Authors Occasionally

A special course offered either semester for the study of one or several authors of importance drawn from specific periods. Conducted in French. Four credits per semester. *Staff*

French 291, 292 — Junior Year Tutorial By arrangement

Eligible juniors may elect one or both of these courses only with the permission of the department chair. Tutorials are offered only to students who have previously taken all other advanced courses offered in a given semester. Four credits. *Staff*

French 293, 294 — Senior Year Tutorial By arrangement

Eligible seniors may elect one or both of these courses only with the permission of the department chair. Tutorials are offered only to students who have previously taken all other advanced courses offered in a given semester. Four credits. *Staff*

German

German major requirements: a minimum of 10 courses on the intermediate level or above. German majors are required to successfully complete German 131, 132 and German 133, 134. Majors are encouraged to enhance their knowledge of German thought and culture through allied courses in art, history, philosophy and political science.

German 11 — Elementary German Fall

A course designed for students with no previous study of German, aimed at the acquisition of a basic speaking, reading and writing knowledge. Five class hours weekly and laboratory practice. Five credits. *Staff*

German 12 - Elementary German Spring

A continuation of German 11. Five class hours weekly and laboratory practice. Five credits. Staff

German 21 — Intermediate German Fall

A review of the fundamentals of the German language, supplemented by readings in literary and cultural texts as well as practice in oral and written expression. Prerequisite: German 12 or the equivalent. Four class hours weekly and laboratory practice. Four credits. *Staff*

German 22 — Intermediate German Spring

A continuation of German 21. Four class hours weekly and laboratory practice. Four credits. Staff

German 131 — German Culture: 1750-1890 Alternate years in Spring; not offered 1990-91

An introduction to outstanding examples of German thought, art, and cultural developments in the 18th and 19th centuries. Important German cultural figures such as Frederick the Great, Goethe, Beethoven, Nietzsche and Marx are discussed. Readings, lectures, and discussions in German. Prerequisite: German 22 or the equivalent. Four credits. Zwiebel

German 132 — German Culture: The 20th Century Alternate years in Spring

An introduction to political and cultural developments in Germany in the 20th century. Aspects of the Weimar Republic, the Third Reich and contemporary East and West Germany are studied. Readings, lectures, and discussions in German. Prerequisite: German 22 or the equivalent. Four credits. *Arend*

German 133 — German Syntactical and Conversational Practice Alternate years in Fall

A study of the finer points of German grammar and idiom through controlled translation and written exercises as well as conversational practice. Required for German majors and recommended for freshmen with advanced placement. Prerequisite: German 22 or the equivalent. In German. Four credits. Zwiebel

German 134 — German Composition and Conversation Alternate years in Fall; not offered 1990-91

A course devoted to the achievement of basic fluency in spoken and written German. Weekly papers and oral assignments are given. Required for German majors and recommended for freshmen with advanced placement. In German. Prerequisite: German 22 or the equivalent. Four credits. Bernstein

German 161 — Goethe and Schiller Every third year in Spring; offered in 1991-92

Analysis of representative works of Lessing, Goethe and Schiller within the context of the German Enlightenment and German Idealism and their major philosophical, aesthetic and moral concerns. Readings and discussions in German. Prerequisite: German 22 or the equivalent. Four credits. Zwiebel

German 162 — German Romanticism Every third year in Spring; offered in 1992-93

A study of selected Romantic writings against the background of related developments in the arts and in philosophy. Analysis of works by Tieck, Novalis, Brentano, Eichendorff, Holderlin, E.T.A. Hoffmann and others. Readings and discussions in German. Prerequisite: German 22 or the equivalent. Four credits. Zwiebel

German 171 — Nineteenth Century German Literature Every third year in Spring; offered in

A study of German literature in the age of burgeoning industrialism and materialism, extending from the late romanticism through the era of realism. Works of representative authors such as Heine, Büchner, Grillparzer, Stifter, Keller, Wagner, Nietzsche and Fontane. Readings and discussions in German. Prerequisite: German 22 or the equivalent. Four credits. Zwiebel

German 172 - Modern German Theater Every third year in Fall; offered in 1992-93

Analysis of the major movements and playwrights of modern German theater studied against their historical and ideological background. Readings of works by Hauptmann, Kaiser, Schnitzler, Hoffmannsthal, Brecht, Frisch, Dürrenmatt, Weiss and others. Readings and discussion in German. Prerequisite: German 22 or the equivalent. Four credits. Bernstein

German 181 - Kafka, Hesse, Mann and Their Contemporaries Every third year in Fall; offered in 1991-92

Introduction to the most significant masters of German prose in the first half of the 20th century. Readings and discussions in German. Prerequisites: German 22 or the equivalent. Four credits. Bernstein

German 182 — Postwar German Literature Every third year in Fall; offered in 1990-91 A study of the literature written in three German-speaking countries after World War II. Selected works by Borchert, Grass, Boll, Frisch, Christa Wolf, Dürrenmatt, Plenzdorf, Handke and Biermann. Prerequisites: German 22 or the equivalent. Four credits. Arend

German 241, 242 — Special Topics in German Literature and Culture Irregular

Intensive study of a special aspect of German literature such as themes, genres or movements. Topics announced in the preceding semester. Given in German or English according to staff decision. Recent topics: Brecht and the Political Theater, European Romanticism, Existentialism in German Literature. Four credits per semester. Staff

German 251, 252 — Major Authors in German Literature Irregular

Intensive study of the chief works of a specific German author. Topics announced in preceding semester. In German or English according to staff decision. Recent topics: Hermann Hesse and Thomas Mann, Franz Kafka. Four credits per semester. Staff

German 291, 292 — Junior Year Tutorial Both semesters

Eligible juniors may elect German 291, 292 with permission of department chair and instructor. Topics to be determined by instructor. Recent topics: Modern German Drama, East German Literature. Four credits per semester. *Staff*

German 293, 294 — Senior Year Tutorial Both semesters

Eligible seniors concentrating in German may elect German 293, 294 with permission of department chair and instructor. Recent topics: Bertolt Brecht, The Literature of the Third Reich, East German Fiction, Thomas Mann, the "Wall" in East and West German Literature. Topics to be determined by instructor. Four credits per semester. Staff

Italian

Italian 11 — Elementary Italian Fall

A course designed for students with no previous study of Italian, aimed at the acquisition of a basic speaking, reading and writing knowledge. Five class hours weekly and laboratory practice. Five credits. *Staff*

Italian 12 — Elementary Italian Spring

A continuation of Italian 11. Five class hours weekly and laboratory practice. Five credits. Staff

Italian 21 — Intermediate Italian Fall

Designed for students who have completed successfully a basic course in the language. Emphasis is placed on a rapid review of the language with an introduction to Italian literature and concentrated oral expression. Four class hours weekly and laboratory practice. Four credits. Staff

Italian 22 — Intermediate Italian Spring

A continuation of Italian 21. Four class hours weekly and laboratory practice. Four credits. Staff

Linguistics

Linguistics 11 - Introductory Linguistics Fall

A study of the nature of language as a communications system and the development of contemporary formal linguistics. Four credits. Staff

Russian

Russian major requirements: A minimum of 10 courses on the intermediate level or above. Majors are encouraged to enhance their knowledge of Russian thought and culture through allied courses in history, philosophy and political science. Opportunities exist for independent tutorial or internship work in the Worcester community with recent Soviet emigres.

Russian Studies

Russian 11 - Elementary Russian Fall

This course aims to acquaint students with the fundamentals of Russian grammar, pronunciation, intonation, and oral expression. Emphasis is also placed on acquiring a knowledge of Russian culture and life through the medium of language. Five class hours weekly and laboratory practice. Five credits. *Kostich*

Russian 12 — Elementary Russian Spring

A continuation of Russian 11. Five class hours weekly and laboratory practice. Five credits. *Kostich*

Russian 21 — Intermediate Russian Fall

A continuation of Elementary Russian, with greater focus on speaking, writing and reading practice. Study of more complex aspects of the grammar. Longer readings and discussion of

Russian and Soviet culture. Conducted mostly in Russian. Prerequisite: Russian 12 or the equivalent. Five class hours weekly and laboratory practice. Five credits. Reed

Russian 22 — Intermediate Russian Spring

A continuation of Russian 21. Five class hours weekly and laboratory practice. Five credits. Reed

Russian 131 — Studies in Russian Language and Culture Fall

Topics in Russian literature and culture through discussion, reading and composition. Materials range from belles lettres to non-fiction texts. Also includes advanced grammar and stylistics. Conducted in Russian. Prerequisite: Russian 22 or the equivalent. Three hours weekly and laboratory practice. Four credits. Staff

Russian 132 — Studies in Russian Language and Culture Spring

A continuation of Russian 131. Three hours weekly and laboratory practice. Four credits. Staff

Russian 141 — Advanced Studies in Russian Culture and Literature Fall

Analysis of literary works and documentary materials with the aim of probing Russian cultural traditions, particularly in the 19th and 20th centuries. All discussions, readings and papers in Russian. Prerequisite: Russian 132 and permission of instructor. Four credits. Visiting lecturer (USSR)

Russian 142 — Advanced Studies in Russian Culture and Literature Spring A continuation of Russian 141. Four credits. Visiting lecturer (USSR)

Russian 162 — Russian Drama Alternate years

A study of the major Russian dramatists — including Ostrovsky, Chekhov and Gorky — in the 19th and 20th centuries. Special attention is devoted to the auditory and visual nature of drama, when possible, with the aid of English recordings and Soviet films. Conducted in English. Four credits. Kostich

Russian 165 — Russian Poetry Fall

An introduction and a critical study of the major poets from Pushkin to the present. Lectures and readings in Russian. Four credits. Kostich

Russian 241 — 19th century Russian Literature Spring

Russian literature from the Golden Age through Realism to fin-de-siecle Decadents. Conducted in English. Four credits. Reed

Russian 242 — 20th century Russian Literature Alternate years

Russian literature from the Silver Age through the Revolution to the present "underground" works. Conducted in English. Four credits. Reed

Russian 251 — Introduction to Russian Studies

An interdisciplinary study of Russian civilization, offered every other year. The course covers a theme (such as Russia and the West or the Russian Revolution), using the methodologies of several disciplines, such as literature, history and political science. Required of Russian Studies concentrators and open to others. Four credits. Offered by the History Department as History 155 (cross-registered as Political Science 256 and Russian 251).

Russian 261, 262 — Special Topics in Russian Literature Occasionally

A special course offered either semester to study a single author or theme. Conducted in English or Russian. Four credits per semester. Staff

Russian 291, 292 — Junior Year Tutorial Arranged in Fall and Spring

With permission of department chair and instructor only. For juniors who wish to pursue work not covered by one of the regularly offered courses. Four credits per semester.

Russian 293, 294 — Senior Year Tutorial Arranged in Fall and Spring

With permission of department chair and instructor only. For seniors who wish to pursue work not covered by one of the regularly offered courses. Four credits per semester.

Spanish

In fulfilling the departmental requirement of 10 courses at the intermediate language level or above, the Spanish major must successfully complete Spanish Composition and Conversation, Introduction to Literary Genres, one semester of a survey sequence (in either Spanish or Spanish-American literature), Advanced Composition and Conversation, and one advanced literature course in a particular period, author, or special topic. The Spanish Section recommends that majors complete two semesters of any of the four semesters of survey of literature, and two courses at the level of advanced literature. At least one of the courses required for the Spanish major must be taken during the senior year. Majors should note that internships and courses taught in English will not count toward the fulfillment of the Spanish major.

Spanish 11 — Elementary Spanish Fall

An intensive introduction to all elements of the Spanish language. Also included is a brief introduction to the culture of the Hispanic World. Five class hours weekly and laboratory practice. Five credits. *Staff*

Spanish 12 — Elementary Spanish Spring

A continuing of Spanish 11. Five class hours weekly and laboratory practice. Five credits. Staff

Spanish 21 — Intermediate Spanish Fall

An intensive grammar review, followed by oral practice, and readings in literature and culture. For students who have completed Spanish 12 or its equivalent. Four class hours weekly and laboratory practice. Four credits. *Staff*

Spanish 22 — Intermediate Spanish Spring

A continuation of Spanish 21. Four class hours weekly and laboratory practice. Four credits, Staff

Spanish 127 — Aspects of Spanish Culture Alternate years

A course devoted to the study of outstanding examples of Spanish thought, art, and historical developments. Readings, lectures, and discussions in Spanish. Prerequisites: Spanish 22 or the equivalent. Four credits. *Staff*

Spanish 128 — Aspects of Spanish-American Culture Alternate years

A course devoted to the study of examples of Spanish-American culture from pre-Columbian times to the present, including the early civilizations, the Spanish Conquest, the Wars for Independence, and the modern period. Readings, lectures, and discussions in Spanish. Prerequisite: Spanish 22 or the equivalent. Four credits. *Torres-Ayala*

Spanish 129 — Spanish Composition and Conversation Both semesters

A course designed for students who have completed one year of intermediate Spanish. This course (or its equivalent) is a prerequisite to any literature course taught in Spanish. The class is limited in size to enable students to receive individual attention in developing their writing and speaking skills and oral comprehension. Prerequisite: Spanish 22 or the equivalent. Four credits. Staff

Spanish 132 — Introduction to Literary Genres Both semesters

Designed especially as an introduction to drama, poetry, and prose fiction of 20th century Spain and Spanish America, this course familiarizes students with literary analysis and further

develops their oral and written skills. Recommended for students who have completed Composition and Conversation or a survey course in Hispanic literature. Advanced (Spanish) literature students should not enroll in this course. Conducted in Spanish. Prerequisite: Spanish 129 or the equivalent. Four credits. Staff

Spanish 133-134 — Survey of Spanish Literature Alternate years

A survey of the literature of Spain from medieval times to the present, including the major writers of the Golden Age, of the romantic and realist periods, and of the Generation of 1898. Conducted in Spanish. Prerequisite: Spanish 129 or the equivalent. Spanish 132 is highly recommended. Four credits per semester. Bailey

Spanish 135, 136 — Survey of Spanish American Literature Alternate years

A study of the literature of Spanish America from pre-Columbian times to the present, including the major writers of the Colonial period, and of the 19th and 20th centuries. Conducted in Spanish. Prerequisites: Spanish 129 or the equivalent. Spanish 132 is highly recommended. Four credits per semester. Borland, Valdés

Spanish 137 — Advanced Spanish Composition and Conversation Both semesters

This one-semester course provides practice in all the skills of advanced language through a wide variety of activities: the study of basic phonetics, in-depth review of difficult grammatical structures, conversations, readings, and discussions. Students also practice creative and analytical writing. Prerequisites: Spanish 129 or the equivalent. Spanish 132 or a semester of survey is highly recommended. Four credits. Levine

Spanish 152 — Medieval Spanish Literature Alternate years

Close reading, analysis, and discussion of representative works of medieval Spanish literature, including the jarchas, the Poema del Cid, El Conde Lucanor, El libro de buen amor, and La Celestina. Conducted in Spanish. Four credits. Bailey

Spanish 153 — Golden Age Literature Alternate years

Intensive study of the major authors of the 16th and 17th centuries, including Garcilaso, San Juan de la Cruz, Cervantes, Lope de Vega, Quevedo, and Calderón. Conducted in Spanish. Four credits. Cull

Spanish 154 — Don Quixote Alternate years

A close reading of Cervantes' masterpiece in order to provide a coherent understanding of the author's attitude toward life and art. Through an analysis of such elements as point of view, plot structure, characterization, interpolated novels and poems, language, and irony, the course defines Cervantes' conception of narrative prose fiction and his role as the originator of the modern novel. Conducted in Spanish. Four credits. Cull

Spanish 156 — Nineteenth-Century Spanish Literature Alternate years

A study of the rise of romanticism and realism in Spain and their respective developments as literary movements in the Spanish peninsula. The course includes such authors as Larra, Bécquer, and Galdós, and such classics as Don Alvaro o la fuerza del destino and Don Juan Tenorio. Conducted in Spanish. Four credits. Cull

Spanish 158 — Twentieth-Century Spanish Narrative Alternate years

 ${f A}$ study of the major trends and writers of fiction in Spain after the realist and naturalist eras. Through the writings of such prominent authors as Cela, Sender, and Matute, the course examines the formal and thematic characteristics of Spanish narrative before and after the Spanish Civil War. Conducted in Spanish. Four credits. Staff

Spanish 160 — Modern Spanish-American Narrative Alternate years

Explores the response of several modern Spanish-American writers to the following questions: What is fiction? What are the roles of the author, the narrator, and the reader? Special attention is given to such outstanding novelists of the "Boom" as Juan Rulfo and Gabriel García Márquez, and to the development of their works within the context of the modern novel. Conducted in Spanish. Four credits. Borland

Spanish 161 — Modern Spanish and Spanish-American Drama Alternate years

The principal objectives of this course are a knowledge of selected works by major modern Spanish and Spanish-American playwrights (e.g., Lorca, Buero, Vallejo, and Carballido) and of the chief currents in 20th century drama. Emphasis is placed on both the technical and thematic characteristics of the genre. Whenever appropriate, the course also seeks to establish parallels between the development of the genre in the two continents. Conducted in Spanish. Four credits. Borland

Spanish 162 — Modern Spanish and Spanish-American Poetry Alternate years

A study of representative works of Spanish and Spanish-American poetry from the last quarter of the 19th century to the present. Both historical and analytical in its approach, the course examines the major poetic currents since modernismo and the "Generation of 1898," it studies the interaction between the poetry of Spain and Spanish America, and it familiarizes students with poetic theory. Among the authors studied are Rubén Darío, Antonio Machado, Federico García Lorca, and Pablo Neruda. Conducted in Spanish. Four credits. Valdés

Spanish 231 — Seminar in Hispanic Literature Occasionally

A course dealing with some specialized area, movement, or writer in Hispanic literature. The topic is changed each semester according to the needs and wishes of the Spanish faculty and students. Four credits. Staff

Spanish 241, 242 — Special Topics Occasionally

A special course offered either semester for the study of a literary genre, form, theme, or problem. Four credits per semester. Staff

Spanish 291, 291 — Junior Year Tutorial Arranged in Fall and Spring

Eligible juniors may elect one or both of these courses only with the permission of the department chair. Tutorials are offered only to students who have taken previously all other advanced courses offered in a given semester. Four credits. Staff

Spanish 293, 294 — Senior Year Tutorial Arranged in Fall and Spring

Eligible seniors may elect one or both of these courses only with the permission of the department chair. Tutorials are offered only to students who have taken previously all other advanced courses offered in a given semester. Four credits. Staff

Studies in European Literature (SEL)

Studies in European Literature (SEL) courses are open, without prerequisites, to all students of the College. Requirements for the SEL major: 10 courses specifically designated SEL. In order to assure direct contact with texts in the original, a competence in at least one of the national languages of Europe is required. Students are, therefore, expected to take a minimum of two semesters beyond the intermediate level in French, German, Russian, or Spanish. The requirement may be fulfilled in Composition and Conversation courses, in advanced literature courses conducted in a foreign language, or in culture and civilization courses conducted in a foreign language.

SEL 101, 102 — Landmarks of European Literature Fall

An introduction to major works of Continental literature, the course explores the works of at least six major authors each semester and serves as a basis for the advanced study of literature. Four credits per semester. *Fraser*

SEL 110 - Medieval Literature Occasionally

Representative works of Continental Europe in the Middle Ages. Among works read are *The Song of Roland; The Poem of the Cid;* Chrétien de Troyes, *Iwain, The Knight of the Lion;* Wolfram von Eschenbach, *Parzival;* Gottfried von Strassburg, *Tristan;* Guillaume de Lorris and Jean de Meun, *The Romance of the Rose;* Dante Alighieri, *The Divine Comedy.* Four credits. *Staff*

SEL 111 — The Renaissance Fall 1991

An introduction to the literature of the Continental Renaissance with emphasis upon the prose fiction of the period. Readings from selected authors such as Boccaccio, Castiglione, Machiavelli, More, Erasmus, Luther, Rabelais and Montaigne. Four credits. *Branciforte*

SEL 121 — Baroque and Classic Literature Occasionally

An interdisciplinary approach to Continental literature between 1580 and 1680. Among authors read are Cervantes, Calderón, Lope de Vega, Corneille, Molière, Pascal and Grimmelshausen. Four credits. *Staff*

SEL 131 — The Age of Enlightenment Occasionally

A study of the literature of 18th century Europe as it reflects the philosophical, cultural, and political aims of the Enlightenment. Among authors read are Shaftesbury, Pope, Montesquieu, Voltaire, Diderot, Rousseau, and Lessing. Four credits. *Honoré*

SEL 141 — European Romanticism Occasionally

A study of the different forms and expressions of Continental Romanticism. Readings of representative works by E.T.A. Hoffmann, Kleist, Novalis, Schlegel, Tieck, Heine, Rousseau, Chateaubriand, Hugo, Nerval, Madame de Stael, Leopardo, and Manzoni. Special consideration is given to the relations between the Romantic Movements of the individual countries. Four credits. Fraser

SEL 143 — The Rise of Realism in the 19th century European Novel Occasionally

The emergence and development of the realist novel as an art form reflecting the literary, cultural, and social attitudes of Continental Europe of the 19th century. Among authors read are Balzac, Stendhal, Gogol, Turgenev, Flaubert, Dostoevsky, Zola, Galdós, and Tolstoy. Four credits. *Staff*

SEL 151 — The Modern European Novel Occasionally

A study of the modern novel with an emphasis on the most significant approaches to form and technique. Among authors read are Gide, Mann, Musil, Kafka, Hesse, Malraux, Silone, Sartre, Camus, Grass, and Robbe-Grillet. Four credits. *Fraser*

SEL 153 — Modern European Theater Occasionally

The major movements and playwrights of modern European theater are studied against their historical and ideological background. Brecht, The Theater of the Absurd (Beckett, Ionesco, Pinter), Frisch, Dürrenmatt, Genet, and Weiss. Four credits. *Staff*

SEL 241, 242 — Special Topics in European Literature Occasionally

Offered periodically for the study of a literary genre, theme or problem. Recent topics have been: The Image of Man in European Literature, Existentialism in European Literature, German Literary Existentialism, Contemporary European Literature, Spanish Thought, Cinema and Humanism, German Novel: The World Mirror, Weimar to Hitler. Four credits per semester. Staff

SEL 251, 252 — Major Authors Occasionally

A course offered periodically for the study of one or more significant authors drawn from specific periods. Some recent topics: Franz Kafka, Hermann Hesse, Thomas Mann, Jean-Paul Sartre and Albert Camus. Four credits per semester. *Staff*

Music

Shirish Korde, M.M., Associate Professor

Carol Lieberman, D.M.A., Associate Professor and Acting Chair

Suzanna E. Waldbauer, M.M., Associate Professor

Hollace Schafer, Ph.D, Assistant Professor

James David Christie, M.M., Distinguished Artist in Residence; Director, Schola Cantorum

Armand G. Qualliotine, Ph.D., Visiting Assistant Professor

Jean deMart, M.M., Lecturer, flute

Marian C. Hanshaw, M.M., Lecturer, piano

Bruce I. Miller, M.M., Lecturer; Director, College Choir

Michael Monaghan, M.A., Lecturer, jazz improvisation; Director, Jazz Ensemble

Kathleen Supove, M.M., Lecturer, piano

Maria Tegzes, M.M. Lecturer, voice

Marsha Vleck, M.M., Lecturer, voice

Toshimasa Francis Wada, M.M., Director, Chamber Orchestra

Beth Wieman, Cand. Ph.D., Lecturer

The Music Department offers all Holy Cross students the opportunity to develop an understanding and appreciation of music through a wide range of courses in the history and theory of music, both on an introductory and on an advanced level. It also provides an opportunity for further study to those who, by virtue of previous training and continuing serious interest, wish to concentrate in music.

The major in music consists of a minimum of 10 and a maximum of 14 courses. Required courses are Music 211-212, 201-202, 301-302 and 400. Electives should include one course in History, Theory, Ethnomusicology and Performance in addition to those required. Music 1 and Music 3 do not count towards the major. Students who do not wish to enroll in the Performance Program of the college may meet the Performance requirement for the major by participating in any one of the performing organizations of the college listed below for at least two semesters with the permission of the department chair.

Facilities in the Music Department include a music library with up-to-date listening equipment and a sizeable collection of scores, books, records and videotapes; practice rooms with pianos; classrooms; a studio equipped with electronic synthesizers and taping units; music analyzing equipment with visual displays; computer terminals; and a variety of traditional instruments. All courses are open to majors and non-majors. Students without prior experience should choose from courses 1-90; students with prior musical experience should choose from courses numbered 100 and above.

Performance Program

The Performance Program consists of a series of courses offered by the Music Department in instrumental and vocal instruction at the intermediate and advanced levels. Instruction is given by professional musicians selected by the Music Department. Twelve lessons are offered per semester. Admission to a course in Performance is gained by a successful audition with members of the department. No student may enroll in more than one *Performance* course each semester. Students must register for the course as a fifth course in the first semester in which they participate in the program. At the end of the first semester of registration in Performance,

they will be assigned an IP (In Progress). During the second semester they will register for *Performance* as a fourth course with a letter grade. Students may only claim a maximum of eight credits with letter grade towards graduation. A semester fee is charged, to be paid to the secretary of the Music Department by October 1, (Fall) and by February 15 (Spring).

Students enrolled in the program for credit must:

1) Present a letter of evaluation from their teacher at the end of the semester

2) Take a final examination given by members of the Music Department at which time they will perform two pieces studied during the semester.

3) Take a semester of theory or history (excluding Music I and Music 3) prior to or concurrently

with Performance.

They are expected to perform at least once in the semester at recitals sponsored by the

department.

The department sponsors student recitals and encourages participation in the following performing organizations: Holy Cross College Choir, Holy Cross Chamber Singers, Holy Cross Chamber Orchestra, Holy Cross Jazz Ensemble, and the Schola Contorum.

Music 1 — Introduction to Music Both semesters

A one-semester listening course for students without any previous musical knowledge. It introduces the elements of music and examines their use in the principal forms and styles of Western and non-Western music through a study of representative works by major composers. Four credits. *Staff*

Music 3 — Fundamentals of Music Both semesters

Introductory theory (notation, scales, intervals, chords, rhythm and meter) and basic musicianship (keyboard skills, score-reading and ear training). Four credits. Staff

Music 10 — College Choir Both semesters

The study and performance of works for mixed chorus. Two or three major concerts per year, often with orchestral accompaniment. No previous musical training or choral experience is required, but students are given instruction in the rudiments of reading music and ear training. Prerequisites: permission of instructor (audition). Must be taken on a Pass/Fail basis and in two consecutive semesters. Does not count toward the 32 courses required for graduation. Two credits. *Miller*

Music 30-40 — Great Composers Annually; offered this Fall

The study of the life and works of a major composer (e.g., Beethoven, Mozart, Wagner, J.S. Bach) and of the age in which he lived. Attention is paid to the development of his musical style, the socio-cultural context in which he worked, the contemporary reaction to his music, and the evaluation of his achievement by posterity. Four credits. *Waldbauer*

Music 41 — Music and Theatre Alternate years; offered this Spring

An introduction to opera, musical comedy, and related genres such as dance and film music, with attention to the relationship between drama and music. A brief historical survey of each category with study of representative scenes and complete works. Four credits. *Lieberman*

Music 42 — Words and Music Alternate years; not offered this year

An historical survey of music which is texted — such as that written for the liturgy, lieder, opera, the madrigal, etc. — in all of which the shape of the music is influenced by words. Topics also include traditional Anglo-American ballads and popular songs of 19th and 20th-century America. Four credits. Waldbauer

Music 50 — American Music Alternate years; not offered this year

Surveys three main repertories of music in the United States: 1) folk and traditional music of urban, rural, and ethnic origin; 2) jazz; and 3) art music from Charles Ives to the present, with particular attention to the influence of science and technology on recent developments. Four credits. *Korde*

Music 51-59 - World Music Alternate years; offereed this fall

Introduction to music of selected African, Asian and American cultures. Each culture is approached through: 1) social and cultural context, 2) theoretical systems and musical instruments and 3) major musical and theatrical genres. Four credits. *Schafer*

Music 60 — Introduction to Electronic Music Fall; not offered this year

Surveys musical and scientific theories related to developments in electronic music. Topics include: physical parameters of audio waveforms and specific means of processing sound using analog synthesizers and computers. Students are introduced to techniques of electronic music composition through the analysis of selected works as well as studio assignments. No prerequisite. Four credits. *Korde*

Music 101 — Concerto Alternate years; not offered this year

The study of representative works written for soloists and orchestra from the late 17th-century Concerto Grosso to the *Solo Concerto* of the 20th century. Examples include the *Brandenburg Concertos* of J.S. Bach, the concertos for piano and violin of Mozart and Beethoven, and selected works of Brahms, Liszt, Rachmaninov and Bartok. Four credits. *Lieberman*

Music 102 — Symphony Alternate years; not offered this year

Introduction to the orchestra, its instruments and its repertory from the inception of public concerts in the 18th Century to the present day. Four credits. Waldbauer

Music 104 — Music for Keyboard Alternate years; not offered this Year

A study of representative works for keyboard instruments (the organ, the harpsichord, and the piano) from the 17th Century to the present. *Waldbauer*

Music 105 — Chamber Music Alternate years; not offered this year

A survey of music for small instrumental and vocal groups from the 16th century to the present. Examples include: the madrigal and chanson of the 16th century, the trio sonata of the 17th century, the string quartet, wind quintet, and other representative works from the 18th century to the present. Four credits. *Lieberman*

Music 201, 202 — Theory of Music I, II

201, Fall; 202, Spring

A two-semester intermediate theory sequence of the materials of modal and tonal music: elementary counterpoint, harmony, and analysis. The course is designed to develop musical skills and theoretical concepts (voice-leading, harmonization of melodies, figured bass, etc.) which underlie performance, analysis, and composition. Prerequisite: Fundamentals of Music or equivalent background. Eight credits. *Lieberman*

Music 211 — History of Western Music I Fall

Historical development of musical styles from the ninth to the middle of the 18th century. Surveys major composers and genres of the Middle Ages, Renaissance, and Baroque periods (i.e., from Gregorian Chant to J.S. Bach). Prerequisite: the ability to read music. Four credits. *Waldbauer*

Music 212 — History of Western Music II Spring

Historical development of musical styles from the late 18th into the 20th century. A survey of major composers and genres of the Classic, Romantic, and Modern periods (i.e., from Haydn through Stravinsky). Prerequisite: History I or permission of instructor. Four credits. Waldbauer

Music 214 — Music of the 20th century Alternate years; offered this Spring

A study of representative works of the major composers of this century, illustrating their new compositional techniques and their relationship to the past (i.e., the music of Bartok, the different styles of Stravinsky, the atonal and serial music of Schoenberg and his followers). The course also includes selected readings of contemporary music theory and practice. Prerequisite: Fundamentals of Music or equivalent knowledge. Four credits. *Staff*

Music 215 — Music of the Classical Era Alternate years; not offered this year

The rise and development of the Viennese classical style as reflected in the chamber music, piano sonatas, and symphonies of Haydn and Beethoven, and in the operas and concertos of Mozart. Special emphasis is placed on those stylistic features that represent a continuation of the Classical tradition and those that point the way to the revolution in musical thought in the 20th century. Prerequisite: ability to read music, or permission of the instructor. Four credits. Waldbauer

Music 216 - Music of the Baroque Era Alternate years; offered this Fall

A study of the most important developments in musical style from the beginning of the 17th century to the middle of the 18th century. Works for analysis are drawn from the music of Monteverdi, Schuetz, Vivaldi, Handel, J.S. Bach, etc. Prerequisite: ability to read music, or permission of instructor. Four credits. *Lieberman*

Music 217 — Music of the Medieval/Renaissance Era Alternate years; offered this Spring The study of the development of Western music, both sacred and secular, from Gregorian Chant to the Polyphonic Mass, motet and madrigal of the 16th Century. Prerequisite: abiliy to read music, or permission of instructor. Four credits. Schafer

Music 301-302 — Theory III, IV 301, Fall; 302, Spring

Semester I emphasizes analysis of tonal music through the study of representative works of such composers as Bach, Haydn, Mozart, Beethoven, and Brahms. Semester II focuses on 20th-century musical systems through the study of compositional theory and the analysis of selected works of 20th-century composers. This advanced theory sequence also includes original composition. Prerequisite: Theory II. Eight credits. *Staff*

Music 311-330 — Special Topics Both semesters

Tutorials in computer music, orchestration, theory, composition, form and analysis, music history and jazz. By arrangement. Four credits. *Staff*

Music 331-332 — Performance Both semesters

Instrumental or vocal lessons for students of intermediate competency. Interested students must consult with the chair of the department. Four credits. *Staff*

Music 333-334 — Advanced Performance Both semesters

Instrumental or vocal lessons for students of advanced competency. Interested students must consult with the chair of the department. Four credits. *Staff*

Music 400 — Senior Seminar Annually; offered in the Spring

The Senior Seminar is designed to integrate the three areas of music: History, Theory and Performance. Required for music majors. Topics are selected from the important repertories of both Western and non-Western music. Prerequisite (or co-requisite): Music 212 and Music 302. Four credits. Waldbauer

Naval Science

Capt. Bernard L. Patterson III, USN, M.S., Professor and Chair Lt. Cmdr. Pamela M. Forbes, USN, M.S., Visiting Lecturer Maj. Joseph F. Dunford, USMC, M.A., Visiting Lecturer

The Department of Naval Science, a recognized department of instruction within the College, educates and trains young men and women to serve as commissioned officers in the Navy and Marine Corps. Only those young men and women reasonably disposed to accept a commission in the Navy or Marine Corps should plan to enter the NROTC Program. This affirmation should be clearly understood by everyone who applies for the program.

Scholarship Program

High school seniors can apply through the national competition for a four-year Naval ROTC Scholarship. If selected for the four-year Naval ROTC Scholarship Program, they receive full tuition, all textbooks, military uniforms, and a \$100 per month subsistence allowance while attending college. They are required to take certain college courses, undergo three summer training cruises of four to six weeks duration, and are required to serve at least four years on active duty after commissioning.

College sophomores can apply through the national competition for the two-year Naval ROTC Scholarship Program. If selected, during their junior and senior years they will receive full tuition, all textbooks, military uniforms, and a \$100 a month subsistence allowance. In addition, they will attend the Naval Science Institute at Newport, R.I. for six weeks during the summer before their junior year, will be required to take certain college courses, and will undergo one summer training cruise of four to six weeks duration. They will be required to serve at least three years on active duty after commissioning.

College Program

Entering freshman students may apply directly to the Professor of Naval Science for enrollment in the College (non-scholarship) Program. This program provides military uniforms and during the junior and senior years a subsistence allowance of \$100 per month while attending college. Books that are available in the unit bookroom are loaned to students. College Program students are required to take certain college courses, to undergo one summer training cruise of four to six weeks duration the summer preceding their senior year and are required to serve at least three years on active duty after commissioning.

Sophomore students may apply for enrollment in the two-year College (non-scholarship) Program. If selected, during their junior and senior years in college they will receive uniforms, books when available in the Unit bookroom, and a subsistence allowance of \$100 a month. In addition, they will attend the Naval Science Institute in Newport, R.I. for six weeks before their junior year, will be required to take certain college courses, and will undergo one summer training cruise of four to six weeks duration during the summer preceding their senior year. They are required to serve at least three years on active during after commissioning.

All students who desire to be considered for this program should apply as early as possible. An application is not binding and, even after enrollment in the program, the student may withdraw without prejudice at any time prior to his or her junior year. As a College Program Student, a student is eligible for Naval ROTC scholarships based on GPA and performance in the Naval ROTC Unit.

Naval Science Students

Any student in the College may take the Naval Science courses. Naval Science students receive credit for satisfactory completion of the Naval Science courses, but have no official status in the NROTC Program and receive none of the benefits provided to the NROTC students.

General Information

The Holy Cross NROTC Unit is composed of approximately 140 midshipmen. The battalion is divided into companies, and the overall leader is the Midshipman Battalion Commander, a senior who is chosen for outstanding leadership qualities. The battalion meets for drill periods once a week. In addition, each year the battalion sponsors an active social program which includes a fall and spring picnic, a spaghetti dinner, the Military Ball, and football, racquetball, basketball, ice hockey, and pool tournaments. During semester breaks, the Unit sponsors orientation trips to New London, Conn., to visit nuclear submarines; to Pensacola, Fla., to visit aviation units; to Boston or Newport, R.I., to visit Navy surface ships; and to Camp Lejuene, N.C., to observe Marine training. These trips are completely voluntary on the part of midshipmen.

Naval Science Courses

Naval Science 11 — Naval Orientation Fall

A non-credit course, presented on a pass/fail basis, as an introduction to the customs, traditions, missions, rules and regulations of the Department of Defense and the United States Navy and Marine Corps. Topics include rank structure, uniform regulations, military law, terminology, ships and aircraft types, naval history, and present naval missions. No degree credit, but required for all midshipmen. Staff

Naval Science 12 — Naval Ship Systems I Spring

A course designed to familiarize students with types, structure and purpose of naval ships. Ship compartmentation, propulsion systems, auxiliary power systems, interior communications, and ship control are included. Elements of ship design to achieve safe operation and ship stability characteristics are examined. No degree credit, but required of all midshipmen. Staff

Naval Science 13 — Naval Ship Systems II Fall

A continuation of the Ship Systems I course presenting an introduction to major shipboard, aircraft and land-based weapons systems utilized by the United States Navy and Marine Corps. The course is divided into the six specific areas that comprise a weapons system, including; sensors and detection systems, tracking systems, computational systems, weapon delivery systems, the fire control problem and system integration. Basic principles of electromagnetic theory and sound wave propagation, as they apply to radar systems and sonar systems are covered. No degree credit, but required of all midshipmen. Staff

Naval Science 14 — Naval Seapower Spring

An overview of American naval history beginning with the birthday of the U.S. Navy on 13 October 1775 until the present. The naval mission and role in United States history will be emphasized. Four credits. Forbes

Naval Science 41 — Navigation Fall

The derivation and utility of celestial navigation and application of spherical trigonometry to the astronomical triangle. Additional topics covered include piloting, electronic navigation and various navigational aids. Wave propagation theory is briefly covered. Four credits. Patterson

Naval Science 42 — Operations Analysis Spring

An introductory course to the procedures used in Naval Operations and Naval Shiphandling. Includes: Maneuvering Board Concepts, Rules of the Road and basic shiphandling. Four credits. Patterson

Naval Science 45 — Evolution of Warfare Alternate years in the Fall

The course is designed to cover the causes of continuity and of changes in the means and methods of warfare during major periods of history. It studies the evolution of strategic principles and the influence of economic, moral, psychological, political and technological factors and strategic thought. The course also examines the interrelationships between technological progress and military changes in rendering obsolete the successful strategies, policies, doctrines and tactics of the past. Four credits. *Dunford*

Naval Science 51 — Naval Organization and Management I Fall

This course focuses on the basic concepts of leadership and management. It includes discussions of the principles and processes required of managers, including: planning, organizing, controlling, motivation, communication, and decision making. Examples from both general business and the Naval Establishment are used. The social, ethical and moral responsibilities of managers are also discussed. *ForbesFour credits*.

Naval Science 52 - Naval Organization and Management II Spring

The study of Naval junior officer responsibilities in Naval administration. The course exposes the student to a study of counseling methods, military justice administration, Naval human resources management, directives and correspondence, Naval personnel administration, material management and maintenance, and supply systems. This capstone course in the NROTC curriculum builds on and integrates the professional competencies developed in prior course work and professional training. No degree credit, but required for all midshipmen. Staff

Naval Science 55 — Amphibious Doctrine Alternate years in the Fall

Amphibious Doctrine is, at its core, a study of the evolutionary development of a unique form of armed engagement, i.e., the contested transition of military power from sea to land. Beginning with studies of selected examples of pre-20th century landings, the course uses the World War I landing at Gallipoli as the turning point in methodology. Study then progresses through World War II and the Korean War to the present. Throughout, the increasing complexity, and incredible detail, of amphibious operations is made evident. Four credits. *Dunford*

Philosophy

Hanna Buczynska-Garewicz, Ph.D., Professor
Hermann J. Cloeren, Ph.D., Professor and Chair
Clyde V. Pax, Ph.D., Professor
Thomas D. Feehan, Ph.D., Associate Professor
Hilde S. Hein, Ph.D., Associate Professor
Joseph P. Lawrence, Ph.D., Assistant Professor
Peter W. Wakefield, Ph.D., Visiting Assistant Professor
Stephen L. Gardner, Ph.D., Visiting Assistant Professor
Karsten R. Stueber, Instructor
Rev. Terrance G. Walsh, S.J., Cand. Ph.D., Instructor
Innocent C. Onyewuenyi, Ph.D., Lecturer

Philosophy is concerned with fundamental questions about the nature and scope of human knowledge, the meaning of reality, the foundations of morals and aesthetics, as well as questions about the individual and society, transcendence, faith, wisdom, and religion. The study of philosophy includes studying its own history, as well as systematic approaches to specific areas. It engages in methodological reflections not only about its own foundations, but also about the foundations of mathematics and the sciences. Philosophizing fosters critical think-

ing, introduces students to close textual analysis, demands highly disciplined writing and conceptually sophisticated oral expression. Successful pursuit of these activities presupposes familiarity with the changes of philosophical thought through history and an increasing versatility in using the conceptual tools of philosophy. Introductory and intermediate level courses help students become acquainted with the concepts and terminology needed for more detailed and in-depth studies in philosophy.

The department offers a great variety of courses that allow students to fulfill the college distribution requirement in philosophy as well as pursue studies in philosophy according to their

personal interests.

Courses exclusively reserved for first-year students are: All Themes courses (10), Team-taught Themes (20), Intensive First-Year Seminar (30), Introductory Logic (115-02), and Critical Thinking (Phil. 122).

Sophomores, juniors, and seniors can fulfill their college distribution requirement in philosophy by choosing courses in the 100-199 range, with the above stated exception of Phil.

115-02 and Phil. 122 and a few others that have relevant prerequisites.

To its majors, the department offers a program that combines necessary structure, through certain requirements, with the desirable freedom to follow more individually oriented studies of a systematic or historical nature. Advisors in the department, chosen when students decide to become philosophy majors, will give individual advice and help with the selection of courses before and during preregistration.

Beginning with the class of 1993, the following program for majors has been put in effect: The minimum requirement for a major is 10 semester courses in philosophy, the maximum is 14.

Double majors are restricted to ten courses in philosophy.

Not more than one course may be taken below the 100 level. Preferably in sequential order, three courses have to be taken from Ancient Philosophy, Medieval Philosophy, Modern Philosophy I, Modern Philosophy II, Contemporary European Philosophy. One course each has to be taken in the areas of Logic, Theory of Knowledge, Metaphysics, Ethics. Three courses have to be taken on an advanced level (200-299).

In their senior year, majors are invited to participate in a Senior Seminar Project. In addition to a wide range of courses, the department offers a number of seminars, tutorials and opportunities for independent study. From time to time the department also offers courses as part of various sequences in the Interdisciplinary Studies Program. Faculty-student community is deepened through formal participation in departmental colloquia and through informal conversations in the Philosophy Common Room. While the Philosophy Club is open to all interested students, membership in the Holy Cross Chapter of the National Honor Society in Philosophy, Phi Sigma Tau, requires as qualifications a strong academic record in philosophy and an overall strong record of scholastic achievement. Formal application is necessary for admission.

Introductory Courses

Philosophy 10 — Themes Fall, Spring

A one-semester consideration of specific themes in philosophy specifically designed for first-Year students. Students will be introduced to philosophical thinking, as well as to reading and writing carefully about philosophical topics. Themes will vary from section to section and from year to year. Four credits. Staff

Philosophy 30 — Intensive First-Year Seminar Annually

A one-semester Honors-type seminar specifically designed for highly motivated first-year students. Enrollment will be limited to accommodate the critical discussions and intensive work that a seminar format requires. Students will be selected following formal application to the instrucfor. Applications for this course will be sent to first semester students in November and returned to the professor by mail (153A) or in person (O'Kane 489) before pre-registration period. Four credits. Feehan

Intermediate Courses

Philosophy 101 — Metaphysics Fall

Aristotle described metaphysics as the "science which takes up the theory of being as being and of what 'to be' means taken by itself." Before and since Aristotle the meaning and significance of metaphysics has been in dispute. While some thinkers have dismissed metaphysics as meaningless speculation, others have held it to be the center of Western philosophy. Using primary texts of classical and contemporary writers, this course studies the origins of metaphysics in ancient Greece, major developments of metaphysical thinking, and contemporary meanings of and challenges to metaphysics. Four credits. Lawrence

Philosophy 104 — Approaches to Ethics Fall

An examination of the attempts to arrive at the foundations of ethics. Emphasis is placed on the continuity in the development and refinement of these attempts historically, so that contemporary moral problems and their proposed solutions may be seen in proper perspective. Four credits. *Staff*

Philosophy 107 — Foundational Questions in Ethics Annually

The course presents the philosophical reflection on the grounds of ethics. The problem of moral law and its rational legislation is discussed. The other questions emphasized are: the egalitarian sense of moral law, duty and its universal sense, the criticism of moral law, the danger of relativism, the concepts of virtue and value, love and compassion, the antinomy of pluralism and absolutism, etc. Works of Kant, Schopenhauer, Nietzsche, Scheler and Rawls are discussed. Four credits. *Buczynska-Garewicz*

Philosophy 109 — Theory of Knowledge Fall

The course presents philosophical reflections on human knowledge. It is focused on clarification of the following questions: What can we know? What is truth? How do we obtain true knowledge? Is the world itself similar to what we know about it? What is an object of knowledge? What is the function of language in knowing? What is thinking? etc. The works of great philosophers are discussed in class, with a focus on the seminal discussions of the ancient Greeks. Readings will include: Plato, Aristotle, Hume, Kant and others. Four credits. Wakefield

Philosophy 115 — Introductory Logic Fall and Spring

This course is an introductory study of the formal structure of reasoning patterns such as deduction. It includes an introduction to formal languages, sentential calculus, and predicate calculus, as well as an investigation into logic's value and limits. Four credits. *Staff*

Philosophy 122 — Critical Thinking Annually

This is a joint effort to appreciate, understand and practice deliberative, sound judgments on the acceptance of statements or courses of action. It involves two areas of concentration. *FIRST*, we reflect critically on unsupported statements stressing their clarity, precision and function as well as the various criteria for their evaluation. *SECONDLY*, we concentrate on statements supported by reasons whether deductively or inductively, underlining the discernment, anatomy, and evaluation of such arguments and their related fallacies. Since this course involves Socratic questioning and active student participation in discussions and prepared arguments, both full attendance and faithful preparation are essential. Four credits. *Feehan*

Philosophy 125 - Ancient Philosophy Spring

A study of main contributions of ancient Greek philosophy to the development of Western thought. Students will be introduced to central problems raised by Pre-Socratic Greek Philosophy and will then study Plato, and Aristotle. Four credits. *Cloeren*

Philosophy 130 — Medieval Fall

A study of selected medieval thinkers such as Augustine, Boethius, Dionysius, Anselm, Bonaventure, Aquinas, Scotus, and Ockham. The birth of scholasticism, an analysis of this philosophical movement in the 13th century, and its decline will be presented. Four credits. *Walsh*

Philosophy 135 - Modern Philosophy I Fall

A study of the origins of modern philosophy: Descartes' turning towards the subject, his attempt at a justified method guided by the ideal of mathematical certainty, his influence on the development of European rationalism, Spinoza, Leibniz. Equal attention will be given to empiricist philosophers such as Bacon, Hobbes, Locke, Berkeley, Hume and their approaches to philosophy and science. Four credits. *Cloeren*

Philosophy 141 — Modern Philosophy II Spring

A study of the later development of modern philosophy including Kant's new evaluation of metaphysics, epistemology, the nature of the sciences and morality and the idealist thought of Fichte and Hegel. Attention will also be given to the thought of those opposing idealism, especially Marx and Kierkegaard. Four credits. *Cloeren*

Philosophy 143 — American Philosophy—Alternate years

A survey of the beginnings and development of American philosophic thought from the colonial period to the present. Detailed discussion of the work of Emerson, Peirce, and James and of important movements such as transcendentalism, pragmatism and analytic thought. Four credits. *Buczynska-Garewicz*

Philosophy 144 — Contemporary European Philosophy Fall

The course covers the last hundred years in history of philosophy. Main currents in European philosophy will be dealt with: 1. Logical positivism/analytical philosophy, 2. Phenomenology, 3. Existentialism, 4. Marxism, 5. Post-Modernism. Topics considered will include basic ontological, epistemological and moral problems of the contemporary world. Four credits. Buczynska-Garewicz

Philosophy 145 — Phenomenology: Introduction *Fall*

An examination of the origin and intent of the contemporary philosophical movement of phenomenology. Detailed study of selected texts of Husserl, Heidegger and others. Influence of phenomenological thinking in the areas of psychology, aesthetics, and literary criticism. Four credits. *Buczynska-Garewicz*

Philosophy 146 — Philosophy and Literature Spring

This is basically a philosophy course: its main purpose is to introduce students to some basic contemporary philosophical problems. The way to accomplish this goal is through simultaneous reading of philosophy and literary texts, which present similar notions. The course presents the impact of philosophy on literature and shows how philosophy is present in all forms of intellectual life as its integral part. The basic problems discussed are: time, freedom, solitude and community. The authors of texts used in class are: Bergson, Proust, Nietzsche, Husserl, Heidegger, Hesse, Jaspers, Sartre, Camus, T.S. Eliot, Orwell and many others. Four credits. Buczynska-Garewicz

Philosophy 148 — Introduction to African Philosophical Thought Spring

Thorough study of the major structures of African philosophical thought in their historical setting, aiming at understanding its characteristic vision. Examination of perspectives presented by Voodoo, Ntu, Nommo and Hantu. A study of selected works of authors such as Chinau, Achebe, Alan Paton, Cyprian, Ekwenski, Leopold Senghar. This will enable the students,

through class discussion, to create a shared experience of the works and proceed to a philosophical discussion of the issues suggested by the writer and the situation he creates. Four credits. *Onyewwenyi*

Philosophy 150 — Latin American Philosophy Spring

This course is concerned with Latin American philosophical thinking in the late 19th and 20th centuries. After briefly surveying several imported movements such as positivism, analysis, phenomenology, existentialism and Marxism, the course will seek to uncover the indigenous thinking of Latin American authors. Works studied will be drawn from various authors including Caso, Frondizi, Vasconcelos, Deustua, Ramos, Korn, Romero, Astrada, Paz, Dussel, Quesada, Reale, and others. Four credits. *Pax*

Philosophy 151 — Indian Philosophy—Alternate years

Survey of the central ideas of philosophic thought in India. Examination of the origins of Indian philosophy in the Vedic hymns, the Upanishads, and the Bhagavad-Gita; study of the development of philosophy in the classical schools of Hinduism and Buddhism; brief consideration of selected texts of contemporary authors. Four credits. *Pax*

Philosophy 152 — Chinese Philosophy—Alternate years

Survey of some of the main schools of philosophic thought in China: Confucianism and Taoism. Emphasis is placed upon the development and interaction of the various movements and their relation to Western ideas. Four credits. *Pax*

Philosophy 160 — Aesthetics I Annually

Examination of selected issues from the history of Aesthetics. Traditional theories of aesthetics — imitation theory, formalism, expression theory — are discussed, as well as modern approaches and contemporary problems. Particular attention is given to the relation of art to society and socio/political issues, to the interaction of art and philosophy, and to the aesthetics of nature and everyday life. Four credits. *Hein*

Philosophy 161 — Philosophy of Mind Spring

An examination and discussion of such topics as the nature of consciousness, the self, and action; the relation between mind and body; the relation between thought and language. Four credits. Stueber

Philosophy 162 — Philosophy of Language Annually

At the beginning of this century philosophy underwent, with the so-called "linguistic turn," yet another Copernican revolution. Traditional philosophical problems were supposed to be solved or dissolved through an analysis of the meaning of linguistic expressions. We will try to evaluate this kind of philosophizing through a systematic analysis of the philosophical project of a theory of meaning in its historical development. Readings will include texts of Frege, Carnap, Quine, Davidson, Dummett, and Wittgenstein. Four credits. Stueber

Philosophy 164 — Philosophy of History Annually

The course surveys major philosophical theories of history. A variety of cyclical theories of history will be considered, ranging from views in antiquity to those of G. Vico in the 18th century and of Spengler and Toynbee in the 20th. The linear conception of history will be contrasted with dialectical views as developed in Hegel's idealist and Marx' materialist philosophy. Optimistic theories advocating the idea of progress will be contrasted with pessimistic theories that predict decline and deterioration. Four credits. *Lawrence*

Classical designs of ideal societies (utopias) will be studied as a basis for an evaluative discussion of present-day interests in utopias. The course examines utopias as blueprints for a better future, as forms of escapism, as warnings against the danger of wholesale acceptance of the ideal of technical progress. Among the authors studied will be Plato, More, Bacon, Campanella, Zamiatin, Huxley, Orwell, and Skinner. Four credits. *Cloeren*

Philosophy 166 — Theory of Communism Fall

An in-depth analysis of Marxism-Leninism. A study of its basic tenets as applied practically in socialist societies to problems of economics, politics, jurisprudence, education, science, religion, morality and art. Source materials come principally from the classics of Marxism-Leninism and the writings of contemporary theoreticians of the world communist movement. Four credits. *Staff*

Philosophy 167 — Philosophy of State and Law Annually

A study of such problems as the nature of the state, political power and authority, law, legal rights and obligations, etc., as seen from the perspective of several distinct traditions within Western philosophical thought. Four credits. *Staff*

Philosophy 168 — Economics and Ethical Values Annually

Ethical dimensions of contemporary economic practices, focusing on such issues as world hunger, worker rights, socio-political involvement of transnational corporations, income distribution, etc. The ethical dimension of capitalism, democratic socialism and communism as alternative economic models will also be explored. Four credits. Sometimes taught as ISP Sequence IV. Staff

Philosophy 169 — Philosophy of Law Alternate years

This course examines the nature of law and the place of law in human society. We will consider the history of rule by law and reflect upon its value. Theories of law and of the relation of law to morality are explored. The course draws upon case histories and jurisprudential readings. It is not an introduction to legal reasoning, but a probe of the philosophical issues that underlie such legal concepts as equality, freedom of speech, evidence, obligation, rights, punishment and justice. Four credits. *Hein*

Philosophy 171 — Philosophy of Science Alternate years

An examination of the structure, function, value, and limits of science. Specific topics include the structure of scientific explanation, the role of experimentation, the nature of scientific progress, and the nature of scientific values. The course will also investigate whether the activities of science are both rational and ethical. Four credits. *Stueber*

Philosophy 172 — Philosophy of Biology Alternate years

This course examines biology as related to the other physical sciences and in terms of its philosophical foundations and methodology. Attention is given to the classical mechanism—vitalism controversy, to issues in evolutionary theory and to certain contemporary controversies, e.g., socio-biology, evolution, environmentalism. Four credits. *Hein*

Philosophy 174 — Philosophical Anthropology Spring

Philosophical Anthropology is a general reflection on man and on basic conditions of human existence. Anthropology makes existence the object of its reflection. This thematization of existence is one of the crucial features of contemporary philosophy. The purpose of the course is to introduce students to basic existential categories. Subjects discussed in class are: consciousness of self-being, communication with the others, solitude, responsibility, freedom, guilt, evil, faith and transcendence, authenticity of human being, temporality and death. The authors discussed are: Heidegger, Jaspers, Sartre, and Levinas. Four credits. *Buczynska-Garewicz*

Philosophy 177 — Philosophical Perspectives on Women Spring

This course surveys the classic literature of Western philosophical views on women and the feminist response to it. Attention is given to feminism as a method of analysis as well as to representative issues whose philosophical significance has been identified by feminism, e.g. gender, friendship, dependence. Four credits. *Hein*

Philosophy 178 — Philosophers on War and Peace Annually

An exploration of some major philosophical issues concerning war and peace viewed through the classic writings of Kant, Clausewitz, Lenin, William James, Tolstoy, Gandhi and contemporary authors. Emphasis is on the questions of the possibility of eliminating war, the morality of war both conventional and nuclear, and the moral problems involved with maintaining a policy of nuclear deterrence. Four credits. Sometimes taught as ISP Sequence XXXII. Staff

Philosophy 182 — Philosophy of Religious Experience Annually

An examination of religious experience as a specific type of experience: a description of religious experience in its various manifestations, primitive and contemporary, Eastern and Western; a philosophical investigation of the epistemological and ontological conditions under which this experience is meaningful. Four credits. *Pax*

Philosophy 185 — Philosophy and Myth Alternate years

This course will examine 1) philosophy's own ground in mythical thinking (Parmenides, Plato), 2) the attempt to incorporate myth as an object of philosophical investigation (Hegel, Cassirer), and 3) the suggestion that philosophy might once again rejuvenate itself at the foundation of myth (Nietzsche, Heidegger). Four credits. Sometimes taught as ISP Sequence X. Lawrence

Philosophy 188 — Death—Alternate years

A study of the meaning of death as an existential structure of the human way of being. Topics of reflection will include: the difference between death as an existential structure and death as a termination, being-unto-death and having-been-born, death and alterity, death and finitude, language and death, time and wholeness. Authors read will include Heidegger, Marcel, Levinas, Becker and others. Four credits. *Pax*

Philosophy 190 — Seminar: Knowledge of Self Alternate years

A joint venture of students and professor to address the question of self-knowledge critically. We will touch upon a number of classical philosophical issues such as: the mind/body problem, the elusiveness of self, and the cluster of problems centered around self-identity through time and beyond. This will involve extensive readings as well as intensive personal reflection and active group participation. Four credits. *Feehan*

Philosophy 191 — SEMINAR: Lying and Self Deception Alternate Years

Philosophical analysis, both descriptive and normative, of lying, deception and self-deception prompted by Socratic questioning, student response to various scenarios, open discussion and substantive oral student presentations. Treated will be various life situations involving outright deception or lying and other more marginal cases such as truth-bearing lies and deceptive truth telling. This will bring us into philosophical areas such as linguistics, epistemology, philosophy of mind and ethics. This course involves extensive readings, oral and written presentations and group discussions. Four credits. Feehan

Philosophy 193 — SEMINAR: Moral Reasoning Spring

A critical study of ethical discourse, particularly of what is ordinarily referred to as "moral reasoning." This will involve a brief study of some major normative and metaethical theories as well as certain common fallacies of moral reasoning. Emphasis will be placed on student participation in prepared oral presentations and open discussions which will center around their

own reasoning about contemporary moral problems. The meetings will be conducted by student-initiated discussions, Socratic questioning and micro-lectures, hence there will be extensive readings and various course resources such as books, video and audio tapes. Four credits, Feehan

Advanced Courses

Philosophy 201 — Seminar: Language and Thought Alternate years

Central themes of this study are the interdependence of language and thought, the resulting linguistic and conceptual relativity, and the critical function of linguistic analysis as critique of cognition, as well as its expected therapeutic effect in overcoming pseudo-problems in philosophy. Main focus will be on 19th-century philosophers under the dual influence of the British empiricists and Kant and their anticipation of important features of 20th-century philosophy, especially that of Wittgenstein. Four credits. *Cloeren*

Philosophy 204 — Seminar: Problems in Metaphysics Alternate Years

A systematic reflection upon selected metaphysical questions such as time, identity and existence in both their classical and contemporary formulations. Four credits. *Pax*

Philosophy 208 — Seminar: Epistemology Fall

The seminar presents philosophical reflection on human knowledge. Its main subject is intersubjectivity. The discussion will be focused on language and thinking. Philosophers discussed in class are: Husserl, Heidegger, Wittgenstein. Four credits. *Buczynska-Garewicz*

Philosophy 232 — Seminar: Phenomenology II Alternate years

An intensive investigation of the question of rationality and meaning. The course will be focused on the ontological status of meaning (ideal object, intentional object, act of mind) and on the criticism of psychologism. Phenomenology, hermeneutics and deconstruction will be discussed. Authors studied in class are: Husserl, Ingarden, Heidegger, Ricoeur, Derrida. Four credits. Buczynska-Garewicz

Philosophy 234 — Hermeneutics—Alternate years

A study of the theory of interpretation as constitutive of human knowing and action. The course examines classical and contemporary theories about interpretation, but also demands that the participants enter the practice of hermeneutics in an effort to understand selected difficulties of the modern and contemporary world. Four credits. Sometimes taught as ISP Sequence XVII. Pax

Philosophy 250 — Seminar: Pre-Socratic Philosophy Alternate Years

This course will study the origin of Western philosophy and science before Socrates. It will investigate the relationship between myth and philosophy, the development of various schools of philosophy (Pythagoreans, Eleatics), and conclude with a discussion of the sophists. Emphasis will be placed upon the study of the texts of Pre-Socratic philosophers and the interpretations of modern scholars. Four credits. *Cloeren*

Philosophy 254 — Plato Alternate years

An introduction to the philosophy of Plato: his dispute with the sophists of his day and the development of the theory of Ideas, the consequences of his theory for his understanding of the life of the soul in terms of love and knowledge, and his last critical reflections on his own major dialogues. Four credits. *Lawrence*

Philosophy 258 — Seminar: Aristotle Alternate years

An intense examination and overview of the major philosophical projects of The Philosopher. The goal of the course is to give the student both a detailed grasp of Aristotle's major works and

an appreciation of the relation of Aristotle's philosophical contributions to problems and questions raised by his teacher, Plato. Works to be studied include: Categories, Physics, Metaphysics, Politics, Rhetoric, and Poetics. Four credits. Wakefield

Philosophy 262 — Augustine Alternate years

A detailed study of selected texts of Augustine. Topics of special investigation will include Augustine's understanding of evidence, knowledge and language and his teaching on time, memory and the political nature of human beings. Throughout the semester attention will be given to Augustine's relation to other thinkers and to his relevance for the late 20th century. Four credits. Pax

Philosophy 270 — Kant Alternate years

A reading course in the primary sources, concentrating on the first and second *Critiques* and on the relationship between these two works and their setting in the whole Kantian effort. The meaning of reason and the primacy of the practical use of reason. The influence of Kant on later philosophical writers. Four credits. *Walsh*

Philosophy 275 — Hegel Alternate years

An in-depth study of the philosophy of Hegel. This will include a probing and testing of his positions on the nature of reality and his theory of knowledge. Stress will be put on the philosophy of history, the history of philosophy, the state, and religion, and on their contemporary relevance. Four credits. *Lawrence*

Philosophy 277 — Marx Alternate years

An advanced-level investigation of the more important writings of Karl Marx with selections taken from his early, transitional and later periods. Special emphasis will be placed on the 19th century philosophical movements influencing Marx, his understanding of alienation, philosophy of history, political economy and his social theory. Independent research by the student will be stressed. Four credits. *Staff*

Philosophy 280 — Nietzsche *Alternate years*

An advanced-level investigation of Nietzsche's work from the Birth of Tragedy to the final Ecce Homo. The approach will be historical and critical. Nietzsche's place in 19th-century Western philosophy and his influence on 20th-century philosophers will be stressed. Four credits. Staff

Philosophy 283 — Heidegger Alternate years

The course will consist of a reading and discussion of some of the major works of Heidegger. Special attention will be given to his criticism of Western philosophy, his understanding of truth, his teaching on the meaning of being human (Dasein), and to his pursuit of the question of the meaning of Being. Four credits. Lawrence

Philosophy 291 — Wittgenstein Alternate years

A reading course focusing on Wittgenstein's early *Tractatus Logico-Philosophicus* and his late *Philosophical Investigations*. Topics of special interest will include the author's views on the nature of language, science, philosophy and ethics. The course will also investigate secondary literature in order to assess the significance of Wittgenstein's work for contemporary thought. Four credits. *Pax*

Philosophy 295 — Special Topics and Tutorials Annually

Independent study and tutorial work on various topics of special interest to individual students and faculty directors. Four credits. Staff

Philosophy 298 — Senior Major Seminar

A seminar open to senior majors, and other qualified seniors, examining a broad philosophical topic from various perspectives. The selection of the topic is made by the professor and the prospective enrollees in meetings held during the semester prior to that in which the seminar is offered. Four credits. Staff

Physics

Edward F. Kennedy, Ph.D., Professor Ram Sarup Rana, Ph.D., Professor Robert H. Garvey, Ph.D., Associate Professor and Chair Francis W. Kaseta, Ph.D., Associate Professor Randy R. Ross, Ph.D., Associate Professor Frank R. Tangherlini, Ph.D., Associate Professor Janine Shertzer, Ph.D., Associate Professor

The Physics Department offers a flexible program of study in physics which may be designed to suit the individual needs of the student. The curriculum leading to the bachelor's degree in physics is intended to provide a thorough foundation in the principal branches of physics. With this background and with appropriately selected advanced courses, a student is well prepared for further study leading to advanced degrees in physics, applied physics, geology, oceanography, engineering, medicine, or law, or for entry positions in research, business, teaching, and other fields. Freshmen planning to major in physics are ordinarily enrolled in General Physics (Physics 23, 24, 27), an intensive three-semester course in mechanics, wave motion, thermal physics, electricity and magnetism, and optics, with gradual, but liberal, use of calculus (taken concurrently in the Mathematics Department.)

The requirements for a major in physics consist of both a physics and a mathematics requirement. Physics majors must either take, or have had the equivalent of, Mathematics 31, 32 and 41. In addition, majors must choose, in consultation with their academic advisor, either Mathematics 42 or Physics 118 (Methods of Physics) or both. The required physics courses for a physics major are General Physics (Physics 23, 24 and 27 or Physics 21, 22), Modern Physics (Physics 25), Methods of Physics (Physics 118) or Math 42, Classical Mechanics I (Physics 121), Electromagnetic Theory I (Physics 133), Quantum Mechanics I (Physics 144) and Thermophysics I (Physics $\overline{163}$). Besides these required lecture courses, majors will select, in consultation with their advisors, a minimum of two additional lecture courses between the 100 and 200 levels. Lastly, physics majors are also expected to elect at least two laboratory courses, besides the General Physics Labs (Physics 34 and 37).

All physics courses at the 100 level or above have Physics 22 or Physics 27 as a prerequisite. Any student seeking to take one of these upper level courses without taking the prerequisite listed for that course should seek the permission of the instructor of the course in question.

Programs of supervised research in theoretical or experimental physics are available for qualified physics majors. Research and student laboratory equipment include a 2-MeV, positive-ion, Van de Graaff accelerator; multi-channel pulse-height analyzers; ultra-violet monochromators; a precision refractometer; crystal growing facilities; a 7-inch variable gap precision electromagnet; a 1.5 meter optical spectrograph; a high resolution grating spectrograph (U.V. to far I.R.); an X-ray diffraction system; holography facilities; and several PCs. The College also has a VAX 11/780 computer with ample time available for student use in research.

The department offers a variety of courses for non-science majors, including Earth Science (Physics 35), History and Philosophy of Science (Physics 39, 40), Introduction to Physics (Physics 41), Atomic and Nuclear Physics (Physics 42), Meteorology (Physics 53), Astronomy (Physics 54), The Scientific Viewpoint (Physics 56), The Physics and Chemistry of Energy (Physics 57),

The Physics of Music (Physics 59), and Nature as Text (Physics 60).

Physics 21 — General Physics Fall

An introduction, with calculus, to the basic principles of mechanics, thermal physics, and wave motion. Four credits. *Staff*

Physics 22 — General Physics Spring

An introduction, with calculus, to the basic principles of electricity and magnetism, and optics, with selected topics in modern physics, as time allows. Four credits. *Staff*

Physics 23 — General Physics 1 Fall

A thorough introduction to the basic principles of mechanics, including rectilinear and rotational motion, with liberal use of calculus. Primarily for freshman physics majors and any other interested freshmen taking calculus concurrently. Four credits. *Kaseta*

Physics 24 — General Physics 2 Spring

Continuation of Physics 23. A thorough introduction to the basic principles of wave motion, thermal physics and electricity, with liberal use of calculus. Four credits. *Kaseta*

Physics 25 — Modern Physics Spring

A thorough introduction to the basic concepts of modern physics, including special relativity, the particle aspects of electromagnetic radiation, the wave aspects of material particles, atomic structure, nuclear structure and reactions, and elementary particles. Prerequisite: Physics 22 or Physics 24. Four credits. *Kennedy*

Physics 27 — General Physics 3 Fall

Continuation of Physics 24. A thorough introduction to the basic principles of magnetism, A.C. circuits and optics. Four credits. *Kennedy*

Physics 31 — General Physics Laboratory 1* Fall

Usually taken concurrently with Physics 21. One credit. Toolin

Physics 32 — General Physics Laboratory 2* Spring

Usually taken concurrently with Physics 22. One credit. Toolin

Physics 34 — Freshman Physics Laboratory* Spring

A required course for physics majors. Taken concurrently with Physics 24. One credit. Kaseta

Physics 35 — Earth Science Both semesters

An elective for non-science majors covering the geological processes that influence the surface and internal structures of the earth. The nature of the earth as an evolving planet is explored, including the implications of historical geology and the theory of plate tectonics (continental drift). Four credits. *Rana*

Physics 37 — Sophomore Physics Laboratory* Fall

A required course for physics majors. Taken concurrently with Physics 27. One credit. Kaseta

Physics 39 — History and Philosophy of Science I Fall

An elective for non-science majors. Development of ideas about the solar system and the atom from the ancient Greeks to the times of Galileo and Newton. The decline of science in late Roman times and the critique of astrological determinism. Islamic science and the infusion to Europe. Development of the concept of impetus and momentum. "From closed world to infinite universe." Newtonian gravity and the critiques of Berkeley, Mach and Einstein. "Chemical philosophy" from Boyle to Avogadro. Four credits. *Tangherlini*

Physics 40 — History and Philosophy of Science II Spring

An elective for non-science majors. History of optics and electromagnetism from the Greeks and the Chinese to Maxwell. Einstein's special and general theories of relativity. Wave-particle duality and the discovery of quantum mechanics. Debate with the Copenhagen school over

*Each of these laboratory courses is taken as a fifth course and, as such, is figured into the Q.P.I., but does not count toward the 32 courses required for graduation. Two of these laboratory courses, each above the 100 level, must be taken by any physics major before graduation.

Physics 42 — Introduction to Atomic and Nuclear Physics Spring; not offered this year An elective for non-science majors. Topics include: atomic structure, radioactivity, nuclear reactions, fission, fusion, and applications of nuclear physics, including nuclear energy, nuclear weapons and carbon dating. Four credits. Shertzer

Physics 53 — Introduction to Meteorology Fall

An elective for non-science majors. Topics include: atmospheric properties, solar and terrestrial radiation, cloud types and their causes, thunderstorms, extra-tropical cyclones and anticyclones (low and high pressure systems) — causes and effects, tropical cyclones, forecasting, climate and climatic changes (ice ages), stratospheric ozone, and optical atmospheric phenomena. Four credits. *Garvey*

Physics 54 — Astronomy Both semesters

An elective for non-science majors. A survey of modern theories concerning the solar system, stars, galaxies, and the structure of the universe, including an examination of the assumptions, measurements, and reasoning upon which astronomical knowledge is based. Lectures may be supplemented with direct observation of astronomical phenomena. Four credits. *Ross*

Physics 56 — The Scientific Viewpoint Spring; not offered this year

An elective for non-science majors. An introduction to the scientific interpretation of reality. The differences between classical and modern physics are discussed. The problematic relationship between science and technology is discussed. The explicit and implicit assumptions on which all technology is based are examined. Four credits. *Garvey*

Physics 57 — Physics and Chemistry of Energy Irregular; not offered this year

An elective for non-science majors. An introduction to the laws of thermodynamics and their implications and to the ways these laws are used by physicists and by chemists. Introduction to non-material concepts in physics such as waves, fields, and bonds. Includes discussion of electromagnetic radiation, the nuclear force, chemical bonds. Four credits. *Garvey*

Physics 59 — The Physics of Music Fall; not offered this year

An elective for non-science majors. An introduction to the science of acoustics and its application to music. Includes wave motion, vibration and resonance, the production and reception of musical sound, and the physics of musical instruments. No prior knowledge of music or physics required. Four credits. *Shertzer*

Physics 60 — Nature as Text Spring

An elective for non-science majors. An examination of the ways the physics community has approached nature in its attempt to explain nature. The different 'readings' or interpretations of nature which have been attempted in physics, including Newtonian, relativistic, and quantum physics is explored. Special emphasis is placed on the attempts to explain interactions in physics. No emphasis on mathematics. Four credits. *Garvey*

Physics 81 — Honors Seminar Irregular; not offered this year

A seminar on selected topics in physics offered in conjunction with the Office of Special Studies for students participating in the Honors Program. Four credits. *Staff*

Physics 91 - Radiological Physics Irregular; not offered this year

Topics include: nature and origin of radiation; fundamentals of radiation dosimetry; interaction of radiation with matter; environment and physiological systems; production, detection and applications of different types of radiation; principles of radiation protection; radiation dose calculations; radiation measurements; practical use of radionuclides; nuclear weapons; ionizing radiation; and public health. Four credits. *Rana*

Physics 92 — Topics in Biophysics Irregular; not offered this year

An introductory course. Topics include: mathematical treatment of data, physical aspects of vision, physical aspects of hearing, light absorption effects, physical aspects of muscle, methods determining molecular size and shape, physics of cell electrophoresis, and electrical systems in biology. Three lectures. Prerequisites: at least one college level course in physics and one in biology. Four credits. *Rana*

Physics 111 — Modern Physics Laboratory* Spring

Experiments in modern physics including the Millikan oil-drop experiment, gamma-ray spectroscopy and absorption, the Franck-Hertz experiment, and measurements of e/m for the electron, of Planck's constant, of the Balmer lines, and of the speed of light. Four credits. *Kennedy*

Physics 115 — Optics Alternate years in Spring

Topics include: geometrical optics: Fermat's Principle; laws of reflection and refraction at plane and curved surfaces; image-forming properties of mirrors and lenses; aberrations; aperture and stops; optical systems; wave optics: interference, diffraction, polarization, thin films, scattering of light and holography; quantum optics: optical spectra, lasers. Four credits. *Garvey*

Physics 116 - Optics Laboratory* Alternate years in Spring

Optical instruments such as the interferometer, refractometer, spectrometer and polarimeter are used to investigate optical properties such as refractive index, optical activity, magneto- and electro-optical properties of matter. Lasers and holography are also a part of this laboratory. Four credits. *Kaseta*

Physics 118 — Methods of Physics Spring

Provides a working knowledge of the mathematical techniques needed for the study of physics at the intermediate and advanced level. Topics include vector calculus, linear differential equations, partial differential equations, matrices, Fourier Series and transforms, etc. Four credits. *Tangherlini*

Physics 121 — Classical Mechanics I Fall

Vector algebra, kinematics and dynamics of a particle in one dimension (including linear oscillator), motion in two and three dimensions (projectiles, central force problems), motion of a system of particles, collision problems, the two-body problem. Coupled systems and normal coordinates, beat phenomena. Four credits. *Ross*

Physics 122 — Classical Mechanics II Alternate years in Spring; not offered this year Moving coordinate systems, generalized coordinates, constraints, Lagrangian and Hamiltonian dynamics, rigid body dynamics, inertia and stress tensors, small vibrations and normal modes, elastic waves. Prerequisite: Physics 121. Four credits. *Tangherlini*

Physics 133 — Electromagnetic Theory I Fall

Review of vector analysis; electrostatics: the electrostatic field and potential, Div. and Curl of E-field, work and energy in electrostatics; special techniques for calculating potentials, E-fields

*Each of these laboratory courses is taken as a fifth course and, as such, is figured into the Q.P.I., but does not count toward the 32 courses required for graduation. Two of these laboratory courses, each above the 100 level, must be taken by any physics major before graduation.

in matter. Magnetostatics: The Lorentz and Biot-Savart's Laws, Div. and Curl of B-field, magnetic vector potential, magnetostatic fields in matter; electrodynamics: EMF, Faraday's Law, Maxwell's equations. Four credits. *Rana*

Physics 134 — Electromagnetic Theory II Spring

Electrodynamics before Maxwell, Maxwell's equations in vacuum and inside matter; boundary conditions, potential formulation of electrodynamics, energy and momentum in electrodynamics. EM waves: wave equation, EM waves in non-conducting and conducting media. Electromagnetic radiation: dipole radiation and radiation from a point charge. Some applications of EM theory in solid state, astrophysics, plasma physics and optics. Prerequisite: Physics 133. Four credits. *Rana*

Physics 135 — Electronics Alternate years in Spring; not offered this year

Analog electronics is developed starting with Kirchhoff's Laws applied to DC and AC network analysis. The physics of semi-conductors and the properties of diodes and transistors are studied with various circuit applications, e.g., rectifiers, regulators, amplifiers, oscillators, etc. Principles of feedback systems are covered and applied to operational amplifier circuits. Four credits. Kaseta or Kennedy

Physics 136 — Electronics Laboratory* Alternate years in Spring; not offered this year AC and DC circuits, low- and high-pass filters, diode characteristics, rectifiers, transistor characteristics, amplifiers, multiple stage amplifiers with feedback, oscillators, operational amplifiers, TTL integrated circuits. Four credits. Kennedy or Kaseta

Physics 144 — Quantum Mechanics I Spring

The postulates of quantum mechanics, one-dimensional problems, and three-dimensional problems, including the hydrogen atom. Prerequisites: Physics 25 and Physics 121. Four credits. *Garvey*

Physics 145 — Quantum Mechanics II Fall

Operator methods for the quantum-mechanical, harmonic oscillator. Perturbation theory, Fermi's Golden Rule No. 2. Matrix methods in quantum mechanics. Angular momentum and spin. Parity. Pauli principle and applications. Virial Theorem. Topics from atomic, molecular, and nuclear physics, and elementary particles. Prerequisite: Physics 144. Four credits. *Garvey*

Physics 154 — Theoretical Physics Fall; offered irregularly

Selected topics in theoretical physics. Topics in previous years have included advanced dynamics and general relativity and cosmology. Four credits. *Tangherlini*

Physics 155 — Nuclear Physics Laboratory* Alternate years in fall

Counting statistics, beta counting and complex nuclear decay, nuclear electronics pulse tracing, alpha spectroscopy, gamma spectroscopy, angular correlation, neutron activation, measurement of thermal neutron cross sections, Van de Graaff accelerator operation, Rutherford scattering, charged-particle-induced nuclear reactions. Four credits. *Kennedy*

Physics 161 — Solid State Laboratory* Alternate years in fall; not offered this year

Certain topics in solid state physics are studied experimentally. These include crystal structure using X-ray diffraction methods, optical spectroscopy of solids, thermal and magnetic properties using susceptibility and resonance methods, and electron transport in semiconductors. Four credits. *Kaseta*

*Each of these laboratory courses is taken as a fifth course and, as such, is figured into the Q.P.I., but does not count toward the 32 courses required for graduation. Two of these laboratory courses, each above the 100 level, must be taken by any physics major before graduation.

Physics 163 — Thermophysics I Fall

Basic concepts and the laws of thermodynamics are presented and applied to various systems in equilibrium, including gases, magnetic materials, and solids. The concepts of temperature, heat, work, entrophy, and the thermodynamic potentials are developed. Reversible and irreversible processes are analyzed. Four credits. *Kaseta*

Physics 164 — Thermophysics II Alternate years in Spring

The fundamentals of kinetic theory and statistical mechanics are discussed. Fluctuations in equilibrium systems are discussed. Maxwell-Boltzmann, Bose, and Fermi statistics are developed and applied. Special topics in solid state physics (magnetism and heat capacities) are discussed. Prerequisite: Physics 163. Four credits. Ross

Physics 181 — Introduction to Astrophysics Alternate years in fall; not offered this year A survey course at the introductory level of selected topics of current interest in astrophysics such as solar physics, stellar evolution, stellar remnants (white dwarfs, neutron stars, black holes), cosmological models for the origin of the universe. This course is designed for science majors who have had General Physics and Modern Physics. Four credits. Ross

Physics 201, 202 — Undergraduate Research Both semesters

A program of supervised research above and beyond the level of regular course offerings. The work may be theoretical and/or experimental and is designed to bridge the gap between the undergraduate and graduate levels. Four credits per semester. *Staff*

Physics 203, 204 — Physics Seminar. Not offered this year; offered irregularly Four credits per semester. Staff

Physics 205, 206 — Independent Study. Both semesters Four credits per semester. Staff

Political Science

Judith A. Chubb, Ph.D., Associate Professor and Chair Hussein M. Adam, Ph.D., Associate Professor Caren G. Dubnoff, Ph.D., Associate Professor Walter T. Odell, Ph.D., Associate Professor David L. Schaefer, Ph.D., Associate Professor J. Ann Tickner, Ph.D., Associate Professor Maurizio Vannicelli, Ph.D., Associate Professor Selma Botman, Ph.D., Assistant Professor Peter Bruce, Ph.D., Assistant Professor Stephen A. Kocs, Ph.D., Assistant Professor Paul H. Zernicke, Ph.D. Assistant Professor Charles C. Euchner, Cand. Ph.D., Instructor L. Peter Schultz, Ph.D., Lecturer George M. Lane, M.A., Visiting Lecturer Stephen R. Pelletier, Cand. Ph.D., Visiting Instructor

Political Science is the study of government — from philosophical questions regarding the ideal form of government, to the political dynamics of specific sovereign states and the larger international system, to broader theories attempting to explain political behavior in its various forms. The Political Science major is composed of four sub-fields: Political Philosophy, American Government, Comparative Politics, and International Relations. The major is designed to provide both breadth and depth knowledge. Introductory courses in each of the four sub-fields are required for Political Science majors. In addition to the four introductory courses, Political Science majors must take six upper-level courses for a total of ten courses required for the

major. Of the six upper-level courses, at least one must be in either American Government or Political Philosophy and at least one in either International Relations or Comparative Politics. Majors are also strongly encouraged to take courses in related fields like history, economics, and sociology. Knowledge of a modern language is highly recommended as well, especially for students considering careers in the international field.

The study of Political Science is valuable for non-majors as well as majors. Today, as in the Greek city-states of Plato and Aristotle, every citizen has a responsibility to learn about the workings of the political system of which he or she is a part, to understand other nations and the workings of the international system so as to be able to make informed choices regarding foreign policy issues, and to understand the philosophical and ethical underpinnings of competing

ideologies, political choices, and political systems.

Beyond the demands of intelligent citizenship, in both an American and a world context, a Political Science major provides good training for certain kinds of career choices. These include teaching, the legal profession, government service at the federal, state or local level, international business and international organizations. Finally, apart from a student's ultimate career plans, a Political Science major helps students to develop powers of reasoning, critical and analytical skills, and competence in oral and written expression.

Membership in Pi Sigma Alpha, the national student honor society in Political Science, is

open to students with distinguished academic records.

Introductory Courses

Political Science 100 — Principles of American Government Both Fall and Spring each year This course aims at providing a basic understanding of the nature of the American political system by examining political behavior, such as voting, public opinion, interest group activities and decision-making in institutions of American national government, such as Congress, the Presidency and the Supreme Court. Attention is also given to the ideological and institutional foundations of American government. Four credits. Staff

Political Science 101 — Introduction to Political Philosophy Both Fall and Spring each year Concise survey of history of political philosophy. Intended to introduce the student to some of the major alternative philosophic answers that have been given to the fundamental questions of political life, such as the nature of the good political order and the relation of the individual to the community. Authors to be studied include Plato, Aristotle, Machiavelli, Hobbes, Rousseau, and others. Four credits. Staff

Political Science 102 — Introduction to Comparative Politics

Both Fall and Spring each year

An examination of the political systems of selected foreign societies to illustrate major types: Western and non-Western, democratic and authoritarian, mature and developing. Four credits. Staff

Political Science 103 — Introduction to International Relations Both Fall and Spring each year Study of relations between nations and impact of emerging trans-national forces. Course examines a variety of conceptual approaches to understanding global politics and the manifestation of these theories in practice. Among topics addressed are: modes of influence, models of diplomacy, war and peace issues, the role of transnational forces, regional and universal international organizations, international economic relations, human rights in foreign policy, and the impact of science and technology. Four credits. Staff

Intermediate Courses

Political Science 201, 202 — Constitutional Law Annually

A two-semester course that examines the ways in which the Constitution has been defined over time by the Supreme Court. Topics include formation of the Constitution; separation of powers, judicial review, congressional and presidential authority; citizenship, suffrage and representation; individual liberties. Emphasis on the nature of legal reasoning and judicial process. Prerequisite: Political Science 100 or permission. Eight credits. Dubnoff

Political Science 204 — American Politics and Social Change Annually in the Spring

Approaches may vary, including emphasis on: possibilities and limits for democratic control of the economy; political participation of social, ethnic, and racial groups; and the impact on politics of social and economic change. Prerequisite: Political Science 100. Four credits. Euchner

Political Science 206 — Public Policy Annually in the Spring

Political analysis of the making of domestic public policy. The focus is on who gets what, why and how in the policy process. Central questions: Why and when should government act? Can government act when it wants to? Case studies are used to examine institutional roles in public policy making and to gain substantive knowledge of selected policy areas. Prerequisite: Political Science 100 or permission. Four credits. *Bruce*

Political Science 207 — American Presidency Annually

The course is an intensive study of the Presidency, emphasizing the use of original materials and contemporary literature. Topics include the founding period, presidents in the Presidency, the modern president in foreign and domestic affairs, and contemporary views of the importance of the personality of the president. Prerequisite: Political Science 100. Four credits. Zemicke

Political Science 208 — U.S. Congress Annually

The course examines congressional behavior over time. Whom does Congress represent? Is Congress responsible? Topics include: the relationship between Congress and the presidency, Congress and the bureaucracy, Congress and the Courts. Comparative perspectives on legislative politics may be used. Prerequisite: Political Science 100. Four credits. Zernicke

Political Science 209 — Urban Politics Both semesters

A study of the political issues, processes and realities underlying urban problems faced by municipalities in responding to social, economic, and physical change. Prerequisite: Political Science 100. Four credits. *Euchner*

Political Science 211 — American Political Parties Fall

Why did American party politics develop the way it did? What are the consequences of this development for the mobilization of consent and responsible government? Topics may include: party identification among the electorate; the operations of parties at the local, congressional, and presidential level; and American party politics in comparative perspective. Prerequisite: Political Science 100. Four credits. *Bruce*

Political Science 221 — Catholic Political Thought Fall

The purpose of the course is to provide students with an understanding of the major principles that have formed Catholic Thought concerning political life. Sources will vary from year to year but most likely will include the teaching of Paul, Augustine and Aquinas; the contributions of Aristotle and Cicero, and the commentaries of such contemporary writers as Murray and Rommen. Four credits. *Odell*

Political Science 225 — Democratic Political Thought Spring

A study of the relation between democratic values and democratic institutions from the classical age to the modern industrial state. Emphasis on the attempts of various theorists to identify and explain the significance of democratic values, the problems arising from implementing them and the methods for managing those problems. Authors studied will vary from year to year but will most likely include Aristotle, Rousseau, De Tocqueville, Mill, Dahl and Pateman. Four credits. *Odell*

Political Science 227, 228 — History of Western Political Thought Alternate years

Analysis of the political thought of Western civilization from Ancient Greece to the present. Readings in the first semester include works of Plato, Aristotle, Cicero, St. Augustine, St. Thomas and Machiavelli. Readings in the second semester include works of Hobbes, Locke, Rousseau, Burke and Marx. Lectures are based on texts, the works of other political theorists, commentaries and historical sources. Cross-registered as History 61, 62. Eight credits. *Odell*

Political Science 229 — Contemporary Political Theories Alternate years

Critical examination of works by several 20th century political thinkers, evaluating their diagnoses of contemporary political problems and their proposed solutions to those problems. Specific authors read and topics covered may vary from year to year; recent readings included John Rawls' A Theory of Justice, Robert Nozick's Anarchy, State and Utopia, and Irving Kristol's Two Cheers for Capitalism. Four credits. Schaefer

Political Science 230 — Politics and Literature Alternate years

Examination of fundamental problems of political life through the study of literary works dealing with these problems. Specific topics and literary works may change from one semester to the next. Four credits. Staff

 $Political \, Science \, 231 - Philosophic \, Foundations \, of \, Liberalism \, and \, Conservatism \, Alternate \, years.$

The course examines the foundations of modern liberalism and conservatism in the writings of three eighteenth century philosophers (Montesquieu, Burke, and Rousseau), and compares these works with writings by three contemporary American authors maintaining diverse ideological viewpoints (John Rawls, Robert Nozick, and Irving Kristol). Four credits. *Schaefer*

Political Science 232 — Science, History and Political Philosophy Alternate Years
Study and evaluation of the philosophic foundations of historicism and positivistic social
science, and their impact on contemporary politics and political thought. Readers will include
works by Kant, Hegel, Nietzsche, Max Weber, and Leo Strauss. Four credits. Schaefer

Political Science 233 — American Political Thought, I: to 1850. Alternate years This course focuses on some of the most important texts setting forth the principles underlying the founding of the American regime, as well as the subsequent development of those principles up to the pre-Civil War period. Two non-American writers (Locke and Tocqueville) are included because of the influence of their works on American political thought. Four credits. Schaefer

Political Science 234 — American Political Thought, II: 1850 - present. Alternate years This course traces the development of American political thought from the slavery controversy and the Civil War up to the present. Major themes include: Lincoln's "re-founding" of the American regime; the transformation of American liberalism by Woodrow Wilson and Franklin Roosevelt; black political thought; and recent "radical" and "neo-conservative" thought. Four credits. Schaefer

Political Science 240 — American Political Economy Alternate years

Analysis of the relationship between government, business, and labor in the development of American capitalism. Prerequisite: Political Science 100. Four credits. *Bruce*

Political Science 250 — Politics of Revolution in Developing Nations Alternate years
Study of the problems faced by developing nations and the social, economic, and political conditions which render the occurrence of an attempt at a revolutionary solution of these problems likely. Comparison of "model" cases to try to understand what shapes the course of revolutions and what revolutions change or leave unchanged. Prerequisite: Political Science 102. Four credits. Botman

Political Science 255, 256 — Soviet Political Development, 1917-1953; Contemporary Soviet Politics and Society Both semesters

A two semester sequence dealing with the evolution of the Soviet political economic and social system from 1917 to the present. The first semester will focus on the ideological bases of the soviet regime, the Revolution and the Leninist and Stalinist period (in particular the political and ethical dilemmas associated with the rapid modernization of a backward country). The second semester will focus on political, social and economic development from the death of

Stalin in 1953 to the present. Topics include the rise and fall of Khrushchev, the organization and role of the communist party, the problems of essentially planned economy, social problems and policies and dissent. Prerequisite: Political Science 102. Eight credits. *Chubb*

Political Science 257 — Politics of Development Alternate years in Spring

The position of Third World countries in the international system, past and present. Options and strategies for promoting "development." Alternative models for Third World modernization. Options available to developed countries for assisting Third World development. Prerequisite: Political Science 102. Four credits. *Botman*

Political Science 260 — African Politics 1 Fall

A survey of African Politics during the precolonial and colonial epochs. The course will examine representative precolonial politics including the semi-feudal empires and regimes, city-states, centralized rural communities and the so-called state-less societies. It will move on to focus on the impact of the slave trade, colonial partition and domination on African societies. It will also examine the similarities and differences in European colonial policies and practices. The later part of the course will deal with the politics of African nationalism: the development of modern towns and cities, the emergence of voluntary associations, trade unions, mass political parties and the political struggles for independence. The role of Islam and Christianity in the African State formation will also be considered. *Adam*

Political Science — 261 African Politics 2 Spring

An examination of the process of establishing political order and providing for change in contemporary Africa. Topics to be considered include: problems of decolonization, national integration and mobilization, parties, ideologies, elites, and political symbols. Prerequisite: Political Science 102. Four credits. *Adam*

Political Science 263 — Black Political & Social Thought Fall

This course analyzes African and African-American political and social thought by examining selected writings. It explores these ideas within their socio-historical context in connection with related movements: Pan-Africanism, Negritude Movement, the African National Liberation Movement, the African-American Civil Rights and Black Power Movements. This course will compare and contrast the African and the African-American protest/liberation struggle. Adam

Political Science 264 — Government and Politics of the Middle East Fall

The course will focus on inter states' politics and international relations of the modern Middle East. It will attempt to explain the evolution and functioning of several phenomena: Modern states, political institutions, elite's and social classes, the state of Islam and others. Special emphasis will be laid on the dynamic and political aspects of the region: Revolutions, Wars, great powers influence and inter-Arab relations, nationalism, and Islamic fundamentalism. The course will commence with a brief analysis of the perceptions that Middle Easterners and Westerners have held about each other dating from the days of the Crusades. It will then deal with the rise of colonialism, the development of nationalism and the growth of conflict in the region and ending with the resurgence of religion in the Middle Eastern politics at the current time. Four credits. Botman

Political Science 265 — Contemporary Western European Politics Spring

Analysis of political culture, structure, and processes of major Western European powers: Great Britain, France, Italy and West Germany. Examination of contemporary political issues facing these countries. Prerequisite: Political Science 102. Four credits. *Kocs*

Political Science 267 — Politics, Literature and Music of Africa Spring

This course will be team taught and explore Africa from colonial to modern times; emphasizing the political, literary and musical changes during this period. With special focus on Nigeria, the East African Community and South Africa. *Adam*

Political Science 268 — International Communism Alternate years

In different semesters the course will focus on different topics within the international Communist movement. In the past such topics have included Soviet relations with Eastern Europe, Euro-Communism, and revolution and reform in contemporary China. Four credits. Chubb

Political Science 271 — United States and the Middle East Spring

This course will discuss the relations between the United States and the Middle East, beginning with the early interest of American missionaries and oil men in the region. The bulk of the course will deal with events in the region since the creation of Israel, and how they have affected, and been affected by U.S. foreign policy. The primary goals of the course are to give the student a better understanding of the recent history of the Middle East, U.S. interests in the region, and how the U.S. has attempted to promote these interests. Prerequisite: Political Science 103. Four credits. Lane

Political Science 274 — Nationalism in World Politics Alternate years

This course will examine 19th century notions of nationalism and then it will move into a discussion of how the nation-state has survived. The relationship between nationalism and race, class, religion and territory will be analyzed through case studies on Jewish-Arab nationalism, Irish nationalism, and Algerian nationalism. Prerequisite: Political Science 102 or 103. Four credits. Botman

Political Science 275 — International Political Economy Alternate years

This course will examine the interrelations of these various types of economic issues with international politics. Central questions to be covered: North-South relations, the effects of economic interdependence, on the domestic economic policies of advanced capitalist states and the level of international tension dependency, debt repayment and development, access to resources, trade and technology transfer as it has affected the rivalry between the superpowers. Other topics in international political economy, such as international trade and aid, monetary issues and multinational corporations will be introduced as they relate to these larger issues. Prerequisite: Political Science 103. Four credits. Tickner

Political Science 282 — American Foreign Policy Both semesters

This course analyzes and appraises the evolution of the foreign policy of the United States. Particular emphasis will be placed on the historical, political, cultural-ideological, and economic factors which have influenced American behavior in world politics. Prerequisite: Political Science 100 and 103. Four credits. Vannicelli

Political Science 283 — International Organization Alternate years

This course will examine the role of international organizations with international relations. While the United Nations system will be the major focus of attention intergovernmental organization such as NATO and EEC and GATT will also be discussed, with a view to evaluating if and how these organizations contribute to international conflict management, economic cooperation and a more equitable distribution of global resources. Prerequisite: Political Science 103. Four credits. Tickner

Political Science 284 — War and Conflict Resolution Fall

In-depth analysis of the various interpretations of the roots and manifestations of war and of the most relevant proposals for conflict resolution. The approach of the course is interdisciplinary, drawing from political science, philosophy, psychology, sociology, and literature. Four credits. Vannicelli

Political Science 288 — Power, Morality and Foreign Policy Alternate years

This course seeks to explore the doctrine of Realpolitik or power realism, the view that interna $tional\ politics\ is -- and\ must\ be\ -- governed\ solely\ by\ considerations\ of\ national\ interest\ defined$ in terms of power. To what extend does realism describe the actual basis of past and present international politics? Can considerations of justice and equity be successfully incorporated

into national foreign policies, given the will to do so? In particular, must a successful foreign policy always be amoral? Prerequisite: Political Science 103. Four credits. *Tickner*

Political Science 290 — National Security Policy Spring

National security policy has become an intrinsic aspect of American foreign policy and, because of high levels of defense spending, has obvious ramifications also on the domestic political process. This course will examine the meaning of national security and the development of strategic thought and security policy. Topics to be included are the World Wars, limited wars, nuclear war and crisis management. Attention will also be paid to the problems of civil-military relations, the costing of military alternatives, the assessing of threat to security and defensive military capabilities. Particular emphasis will be given to security and interdependence in a nuclear age. Four credits. *Kocs*

Advanced Courses and Seminars

Political Science 300 — Law, Politics and Society Spring

This course will examine the relationship of the American legal system to certain critical social and political processes. After a survey of existing law on civil liberties and rights, the role of groups in bringing test cases and the dynamics of civil liberties litigation will be discussed, using case studies involving political surveillance, racial equality, church-state issues, consumer rights, women's rights and other issues. Implementation of court decisions will also be assessed. Four credits. *Dubnoff*

Political Science 302 — Seminar on Urban Policy Both semesters

The seminar will discuss specific policy areas as they have developed in the urban arena. Students will be required to select and become specialized in one policy area. The ways in which the politics of the metropol, the state and the nation affect public policy in contemporary American cities will be examined. Prerequisites: Political Science 100; 209 or permission. An urban studies, urban history, or urban sociology course would also prepare the student for this seminar. Four credits. Euchner

Political Science 307 — Government and Business Fall

Analysis of the role of commercial life in a liberal democratic regime and an evaluation of the various policy options available to government to promote, regulate, and suppress specific forms of economic behavior. Regulation by independent commission, wage and price controls, and antitrust policy are among the topics to be addressed. Prerequisite: Political Science 100. Four credits. *Bruce*

Political Science 308 — Women and Politics Seminar Spring

This course will analyze the role of women in U.S. politics both historically and in the contemporary period. The nature and scope of female participation in the 19th century will be examined by analyzing the early women's rights and suffrage movements. Twentieth Century feminism will be looked at through use of original and secondary works. Modern feminist theory and its development will also be discussed. Four credits. *Botman*

Political Science 312 — Scandals in the Executive: Watergate and the Iran-Contra Affair Once every two years

The primary purposes of this course are to: 1) give students a better understanding of the personalities and phenomena which comprised these scandals, 2) examine their impact upon public confidence in government, and the modern presidency, 3) explore and critically evaluate the political, legal and moral ramifications of Watergate and the Iran-Contra affair. Four credits. Zemicke

Political Science 330 — National Development and International Politics Alternate years This course will begin with an examination of the positive and negative impacts of the international system on the political and economic development options of Third World countries.

Such a course would begin with an examination of realist models of international politics and liberal models of political economic development. These alternative conservative and liberal perspectives have themselves been subjected to radical critiques by dependency theorists and neo-mercantilist writers. Both of these perspectives will be discussed as well as some alternative development strategies, implicit in or emerging out of these critiques. Case studies will be selected to illustrate the types of responses states make to minimize the detrimental effects of the international system. Four credits. *Tickner*

Political Science 331 — Seminar On West European Foreign Policies Fall

An examination of the role of Western Europe in contemporary world politics. The seminar will focus on the foreign policy strategies of individual West European countries, with special attention to France, West Germany, and Britain. *Kocs*

Political Science 334 — Arms Control Fall

The first half of the course will focus on the negotiations concerning nuclear weapons and defense: INF, SALT/START, and SDI. The background and the current state of play in each set of negotiations will be examined, including the key issues and the factors affecting the positions of the participants. The second half of the course will deal with a number of specific topics related to both nuclear and non-nuclear arms control, such as the conventional weapons talks, the chemical weapons talks, the concept of deterrence, the threat of nuclear terrorism, the questions of first use, etc. Each student will be expected to make an oral presentation in class on one of these subjects, and lead the class discussion. Prerequisite: Juniors and Seniors only. Four credits. *Lane*

Political Science 335 — Seminar/US & the Mediterranean Spring

A single topic of major importance in the field of international relations will be discussed. Interested students should discuss the proposed topic with instructor before enrolling. Four credits. *Vannicelli*

Political Science 351, 352 — Tutorial Seminar Both semesters

Research with individual reports on selected topics or projects. Approval of the professor and the department is necessary. Eight credits. *Staff*

Psychology

John F. Axelson, Ph.D., Associate Professor
Danuta Bukatko, Ph.D., Associate Professor
Charles M. Locurto, Ph.D., Associate Professor and Chair
Ogretta V. McNeil, Ph.D., Associate Professor
Charles S. Weiss, Ph.D., Associate Professor
Bruce M. Bongar, Ph.D., Assistant Professor
Linda L. Carli, Ph.D., Assistant Professor
Mark Freeman, Ph.D., Assistant Professor
Andrew Futterman, Ph.D., Assistant Professor
Patricia E. Kramer, Ph.D., Assistant Professor
James A. Sheppard, Ph.D., Assistant Professor
Carlton Parks, Ph.D., Assistant Professor
Kenneth R. Pugh, Ph.D., Visiting Instructor
Brion Carroll, Ph.D., Lecturer
Matthew A. Toth, Ph.D., Lecturer

The curriculum in psychology is designed to provide students with a multifaceted education that fosters critical thinking and intellectual development. The field of psychology is broad and the course offerings in our department reflect that breadth. We offer majors and non-majors a variety of electives that include basic courses such as abnormal psychology, personality, developmental, the physiological bases of behavior, learning, cognition and memory, and interdisciplinary topics such as brain disorders, gender, the study of the self, the experience of being a Black American, and psychology and literature. Majors in psychology are required to take a series of basic courses including Introductory Psychology, Statistics, Experimental Psychology, Experimental Psychology Laboratory, the History and Systems of Psychology, and one biology course. Electives are grouped into categories that represent psychology as a natural or social science. Students must select five electives, including at least one each from the social and natural science categories. In addition, majors must take one advanced seminar in which they are required to participate in group discussions and class presentations.

We encourage our students to be actively involved in their education and provide them with a variety of learning options in addition to the traditional classroom experience. Students have the opportunity to participate in beginning and advanced research projects, internships involving local businesses and hospitals, and one-on-one directed study with individual faculty

members.

Students are encouraged to work with faculty on research. Our faculty are actively engaged in research or writing on a variety of topics, including work on the effects of hormones on animal behavior, the effects of heredity and environment on intelligence, cognitive development in children, social influence, self-handicapping, suicide, assessment of neurological disorders, perception of victims, and adjustment to new environments. Every year some of our students present their own research findings at professional conferences. Our required courses prepare our students to meet the requirements to gain admission to graduate programs in psychology and counseling, and many of our majors do go on in these programs. A large number of our students become physicians or lawyers. Some go on to graduate training in business, social services, or administrative work. Others begin their careers immediately after graduation from college, entering business, social service or teaching professions.

Psychology 40 — Psychology of Everyday Life Fall

Exploration of some fundamentals of psychology as they relate to personal identity, self-direction, self-mastery, and life's dilemmas. Specific topics include the principles of development, determinants of behavior, motive patterns, and effective and maladaptive behavior. Four credits. *McNeil*

Psychology 50 — Psychology and Literature Alternate years

An exploration of mostly non-fictional texts, such as case histories and autobiographies, from the vantage point of literary theory, particularly the theory of narrative. Special attention will be devoted to the issue of memory and its place in the interpretation of the past, as well as issues regarding the distinctions to be made between fictional and "true" stories. An ISP course. Four credits. Freeman

Psychology 70 — Philosophy of Psychology Alternate years

An exploration of concepts and problems related to the understanding and explanation of human action and experience, as related to psychological inquiry. Drawing especially on certain strands of contemporary European philosophy, particular attention will be given to issues concerning the distinction between the social and natural sciences, the problem of interpretation, and the place of psychology in relation to other modes of inquiry in the social sciences and the humanities. Four credits. Freeman

Psychology 80 — Psychology of Life History Alternate years

Considers both methodological and theoretical concepts and problems in the study of life history. On the methodological side, special attention is devoted to issues including the gathering of life-historical data, the interpretive process, and the eventual presentation of information. On the theoretical side, special attention is devoted to the various ways of accounting for life

histories, the problem of studying the histories of individuals living their lives in times and places different from our own, and finally, the problem of psychological "normality" and "abnormality" and the extent to which they may (or may not) be differentiated. Four credits. Freeman

Psychology 100 — Introductory Psychology Both semesters

An introduction to the principles of psychology as emerging from the areas of perception, learning, intelligence, assessment of abilities, emotion, motivation, personality, psychopathology, and social processes. Required of psychology majors. Four credits. *Staff*

Psychology 145 — Existential Psychology Alternate years

An exploration of the existential/humanistic approach to psychology, which seeks to bring questions pertaining to the meaning and purpose of human life, to human creativity, and to what it might mean to live both freely and responsibly, to the forefront of psychological inquiry. Works include both non-fictional and fictional texts by existential psychologists, philosophers, and novelists. Four credits. *Freeman*

Psychology 160 — Sex Role Development Spring

A critical examination of theory and research on gender differences. Emphasis is placed on the physiological, cognitive, and social bases of masculine and feminine behavior. A variety of special topics are covered, including gender and work, sexual violence, gender roles in the family, and gender and the media. Four credits. *Carli*

Psychology 200 — Statistics Fall

An introduction to descriptive and inferential statistical methods in analysis and interpretation of psychological data. Required of psychology majors. Four credits. *Staff*

Psychology 201 — Experimental Psychology Spring

Survey of methods and techniques of current and traditional experimental psychology. Emphasis is placed on research approaches and procedures, experimental design, statistical applications, and critical evaluation of research. Required of psychology majors. Prerequisite: Psychology 200. Four credits. *Locurto and Staff*

Psychology 203 — Experimental Psychology Laboratory Spring

Provides students with direct experience with some of the methodological techniques used in psychology through the completion of several laboratory projects. Students develop the skill to design an experiment, statistically analyze and interpret the results, and to present the findings in a written and oral report. Taken as a fifth course in conjunction with Psychology 201. Two credits. Staff

Psychology 205 — History and Systems of Psychology Both semesters

An examination in historical perspective of what are considered to be the major systems (e.g., psychoanalysis, behaviorism, existential psychology) of psychology. The course begins by using a number of philosophical questions regarding the status of psychology as a scientific discipline, moves on to a comprehensive treatment of the systems themselves, and finally, returns to initial questions to determine the extent to which they have been answered. Four credits. Freeman

Psychology 220 — Sensation and Perception Spring

A critical examination of the physiology of the major sensory systems (receptor, pathway, cortical representation) and the theoretical models underlying human perceptual phenomena. Prerequisite: Psychology 100 or permission of instructor. Four credits. *Kramer*

Psychology 221 — Physiological Psychology Spring

The structure and function of the nervous and endocrine systems are studied with reference to animal and human behavior. Physiological and neural substrates of the senses and perception, learning and memory, emotion, motivation, sleep and arousal, stress, drug effects, and social behavior are emphasized. Prerequisite: Psychology 100 or permission of instructor. Four credits. Axelson

Psychology 223 — Learning Fall

An intensive evaluation of Pavlovian and operant conditioning in animals and human subjects. Special topics include the application of these principles to psychotherapy and the biological influences and constraints on learning. Prerequisite: Psychology 100 or permission of instructor. Four credits. *Locurto*

Psychology 225 — Developmental Psychology Fall

A survey of theory and research pertaining to both cognitive and social development. Special topics include prenatal development, early experience, perception, memory, intelligence, socialization, moral development, sex-role development, and patterns of child-rearing. Prerequisite: Psychology 100 or permission of instructor. Four credits. *Bukatko*

Psychology 226 — Personality Spring

Covers several major conceptions of personality such as the psychoanalytic, humanistic, cognitive, trait, and behavioral approaches. The theories of such psychologists as Freud, Maslow, Kelly, Allport, and Skinner are presented in order to attain a broad understanding of human personality. Prerequisite: Psychology 100 or permission of instructor. Four credits. Shepperd

Psychology 227 — Social Psychology Fall

An overview of the methods and research findings of social psychology. Emphasis is placed on the experimental analysis of topics such as person perception, interpersonal attraction, prosocial behavior, aggression, social exchange, and group behavior. Prerequisite: Psychology 100 or permission of instructor. Four credits. *Carli*

Psychology 229 — Abnormal Psychology Fall

A general introduction to the development, assessment, and treatment of maladaptive behavior. A history of the treatment of mental disorder, the theoretical and empirical bases of the major approaches to understanding abnormal behavior, and legal and ethical issues are also considered. Prerequisite: Psychology 100 or permission of instructor. Four credits. Bongar

Psychology 231 — Industrial Psychology Spring

Surveys the application of psychological knowledge to a variety of industrial situations. Topics include the selection and development of personnel and the effects of organizational forms on individuals and individual productivity. Prerequisite: Psychology 100 or permission of instructor. Four credits. *Kaufman*

Psychology 232 — Psychological Assessment Alternate years

A history of psychological testing and personality assessment; the rationale of test construction, administration, and interpretation; evaluation of selected tests and testing procedures; and an examination of personal, social, and examiner variables affecting test performance. Prerequisite: Psychology 100 or permission of instructor. Psychology 200 recommended. Four credits. Staff

Psychology 234 — Comparative Psychology and Ethology Alternate years

Topics of central importance to an understanding of human behavior, such as aggression, parent-child relations, and social behavior, are treated from an evolutionary perspective. Particular consideration is given to the extent to which these behaviors may be similar to those observed in species other than homo sapiens. Special topics include language learning in non-human primates and sociobiology. Prerequisite: Psychology 100 or permission of instructor. Four credits. *Locurto*

Psychology 235 — Hormones and Behavior Spring

Roles of hormones in fetal development, adolescent development, cognitive processes, stress reactions, psychopathologies, and aging. Prerequisite: Psychology 30 or 101 or permission of instructor. Four credits. *Axelson*

Psychology 236 — Cognition and Memory Spring

An overview of contemporary conceptualizations of cognitive processes from both the information-processing and structural-organismic points of view. Special consideration is given to the topics of attention, the structures and functions of memory, the role of language in cognition, and cognitive development. Prerequisite: Psychology 100 or permission of instructor. Four credits. *Pugh*

Psychology 238 — Counseling and Psychotherapy Spring

A critical evaluation of major forms of counseling and psychotherapy, including the psychoanalytic, behavioral, existential, and interactional (e.g., family therapy) approaches. There is an emphasis both on techniques of therapy and on the underlying theoretical rationale for the various methods. Prerequisite: Psychology 229 or permission of instructor. Four credits. Bongar

Psychology 240 — Behavior Modification Alternate years

The applications of principles derived from empirical research in psychology for the purpose of producing behavior change in applied settings, such as school, prison, outpatient clinic. Topics range from the application of learning theory to the treatment of special populations, such as autistic children. Special attention is devoted to the theoretical and empirical bases of therapeutic strategies. Prerequisite: Psychology 100 and 223 or permission of instructor. Four credits. Bongar

Psychology 242 — Clinical Psychology Alternate years

A general introduction to the origin, development, and techniques of clinical psychology. Survey of treatment issues, interviewing, importance of assessment and diagnosis. Importance of specific areas, e.g., behavior therapy, to the modern-day approach to clinical psychology is stressed. Prerequisite: Psychology 229 or permission of instructor. Four credits. *Staff*

Psychology 300 — Advanced Laboratory in Physiological Psychology Alternate years, Spring Designed to give students hands-on experience with the methods and techniques of physiological psychology. Topics include gross neuroanatomy, stereotaxic surgery, histology, and recording of biological events. Each student conducts an original project using one of the above methods. Prerequisites: Psychology 201 and 221. Four credits. Axelson

Psychology 302 — Advanced Laboratory in Learning Alternate years

Emphasizes the development and execution of an original experiment derived from any area of operant or Pavlovian conditioning. Occasional seminars in specific areas of learning theory supplement the student's individual research as do experimental demonstrations of several phenomena including imprinting, aggression, and addictive behaviors. Prerequisites: Psychology 201 and 223. Four credits. *Locurto*

Psychology 304 — Advanced Laboratory in Developmental Psychology Alternate years Students conduct original research projects, either individually or in small groups, drawing from the literature in developmental psychology. Appropriate methods of investigation and the particular problems of doing developmental research also are discussed. Prerequisites: Psychology 201 and 225. Four credits. Bukatko

Psychology 306 — Advanced Laboratory in Clinical Psychology Alternate years
Students design and carry out empirical research projects, either individually or in cooperation with another student. They participate in all phases of the research process, including reviewing relevant literature, collecting and analyzing data, and communicating results in professional format. Prerequisites: Psychology 201 and 229. Four credits. Bongar

Psychology 308 — Advanced Laboratory in Sensation and Perception Alternate years
Students conduct original research projects, either individually or in groups, drawing from either classic or contemporary work in sensation and perception. Prerequisites: Psychology 201 and 220. Four credits. Kramer

Psychology 310 — Advanced Laboratory in Social or Personality Psychology Alternate years Students are given the opportunity to participate in research on human social behavior or on the characteristics of human personality. Students design, execute, statistically analyze, and complete a written report of their own choice within the area of social or personality psychology. Prerequisites: Psychology 201 and either Psychology 226 or 227. Four credits. Carli

Psychology 318 — Advanced Statistics Alternate years

Several advanced techniques in inferential statistics are covered, including multifactor analysis of variance, multiple regression, power analysis, and trend analysis. Prerequisite: Psychology 200. Four credits. *Carli*

Psychology 323 — Clinical/Community Practicum Fall

This course involves both classroom and field experience. The latter is obtained through placement at a mental health facility in the community. Supervision of students' placement activities is provided both at the agency and in the classroom. Classroom activities include discussion of readings and exercises focusing on helping skills as well as the particular problems presented by the client populations with which students work. Prerequisite: permission of instructor. Four credits. Bongar

Psychology 350, 351 — Special Topics in Psychology Both semesters

From time to time, intermediate or advanced seminars on particular topics in psychology will be offered by members of the department. Prerequisites: to be determined by instructor. Four credits (each semester). Staff

Psychology 360, 361 — Research Projects Both semesters

Students may undertake an independent research project under the direction of a particular faculty member. Prerequisite: permission of instructor. Four credits (each semester). Staff

Psychology 370, 371 — Directed Readings Both semesters

A reading program conducted under the supervision of a faculty member, generally focussing on an area of psychology not covered in depth in course offerings. Prerequisite: permission of instructor. Four credits (each semester). *Staff*

Religious Studies

Bernard J. Cooke, S.T.D., Professor
John L. Esposito, Ph.D., Professor
Rev. John J. Paris, S.J., Ph.D., Professor
Rev. John E. Brooks, S.J., S.T.D., Associate Professor
Alice L. Laffey, S.S.D., Associate Professor
Frederick J. Murphy, Ph.D., Associate Professor and Chair
Gary A. Phillips, Ph.D., Associate Professor
Rev. William E. Reiser, S.J., Ph.D., Associate Professor
Mary Ann Hinsdale, I.H.M., Ph.D., Assistant Professor
Todd T. Lewis, Ph.D., Assistant Professor
Ronald A. Mercier, S.J., Cand. Ph.D., Instructor
James B. Nickoloff, Ph.D., Assistant Professor
Rev. Frederick M. Enman, S.J., J.D., Visiting Assistant Professor
Everett Fox, Ph.D., Lecturer
Allen D. Callahan, Cand. Ph.D., Visiting Instructor

The Department of Religious Studies has a two-fold function — that of serving the general student body in a liberal arts college and that of preparing students who wish to concentrate in

the area of religious studies for their future work.

Believing that religion is a fundamental dimension of the human experience that deserves to be studied for that reason alone and also that students are in the process of coming to terms with their own traditions and personal identities, the department has designed courses for the student body at large that will enable them to achieve both these purposes. Since Holy Cross is a Jesuit college and the majority of its students come from the Roman Catholic tradition, the department believes it is necessary to provide them with an opportunity to know and understand this tradition as well as to situate it in the larger context of other religious traditions and in the broader cultural context in which they live. Students from any tradition must come to terms with the fact of pluralism — both religious and cultural. Departmental courses are designed to help them achieve these goals.

Because the field of religious studies is multidimensional, a program for the majors must acquaint them with each of these dimensions — world religions, bible, theology, ethics — as well as enable them to pursue in depth the particular area of their own interest. A major is required to take 10 courses in the department, including one course in each of the following areas: World Religions (1), The Bible-Old Testament (1), New Testament (1); Theology (1); Ethics (1), and two intensive courses (seminars or tutorials) in their area of concentration. For those students who intend to pursue graduate studies, the department strongly advises competence in the classical and modern languages, as well as the social sciences and philosophy, and

encourages them to pursue a research project in their senior year.

Tutorial reading programs and individual research projects are available to the qualified student by arrangement with the appropriate department faculty and the chair.

RELIGION/RELIGIONS

Introductory Courses

Religious Studies 11 — Prophetic Religious Traditions Not offered this year

An introduction to three classical prophetic religions: Judaism, Islam and Christianity. Examines aspects of their shared history and identifies their distinctive understandings of scripture, law, community, theology, and worship. Seeks to develop an appreciation for the ways each prophetic faith responds to the challenges of the modern period. Four credits. Staff

Religious Studies 31 — Islam and Politics Not offered this year

A study of the Islamic resurgence: its causes, manifestations, issues and problems. The role of Islam in socio-political change is analyzed through focusing on selected case studies: Libya, Saudi Arabia, Egypt, Pakistan, Iran and Malaysia. In addition to the role(s) of religion in contemporary politics, the course emphasizes its implications for legal and social (women's status) change. Cross-registered with Center for Experimental Studies 139. Four credits. Esposito

Religious Studies 35 — Greek Religion

A study of the main beliefs, movements, rites and practices of Greek religion from earliest times to the advent of Christianity. Cross-registered with Classics 190. Four credits.

Religious Studies 36 — Roman Religion

A study of the principal religious cults of the Roman people from the earliest times until the advent of Christianity. Cross-registered with Classics 191. Four credits.

Religious Studies 48 — Introduction to Modern Judaism

A survey of Jewish denominations; the beginnings and growth of Jewish academic scholarship; Jewish nationalism; Bundism and Zionism; Hasidism; Havurah "fellowship" Judaism; Post-Holocaust response in contemporary Judaism. Four credits.

Religious Studies 61 — Religions (China and Japan)

Introduction to history and phenomenology of the religions of China and Japan. An examination of Confucianism, Taoism, Shintoism, Chinese-Japanese Buddhism and Zen Buddhism as an expression of reaction to the total human situation in which persons live. Four credits.

Religious Studies 62 — World Religions (Hinduism, Buddhism and Islam) Both semesters An introduction to three religious traditions through an analysis of those historical events, beliefs, values and practices which exemplify each of their worldviews. Four credits. Lewis

Religious Studies 80— Religion in the Ancient World

Egypt and Mesopotamia as origins of ancient Near Eastern religious developments. Emergence of Israel, its religious distinctiveness, its development as a nation and a people. Growing influence of Greek religious thought, particularly in the Hellenistic period. This course is part of the Ancient Origins of Western Tradition — ISP Freshman Sequence VI. Four credits.

Religious Studies 81 — Christianity in the Greco-Roman World

Context in which Christianity emerges as a world religion. Impact of Greek culture and Roman political institutions on the structuring of Christian faith and life. Formulation of Christian creeds, community life, and liturgy. This course is part of the Ancient Origins of Western Tradition — ISP Freshman Sequence VI. Four credits.

Religious Studies 87 — Introduction to the Study of Religion Not offered this year

An introduction to the nature and place of religion as critically understood through the eyes of modern humanistic, social scientific and natural scientific thought. Viewpoints covered include the historical, political, psychoanalytic, biological and philosophical. Four credits. Staff

Religious Studies 88, 89 — Catholicism and Society in America Both semesters

An historical examination of the development of the Catholic Church and its people in the U.S. Particular attention is devoted to issues of church and society in the contemporary American church as they have developed since the 19th century. Cross-registered with History 197, 198. Eight credits. O'Brien

Religious Studies 90 — Islamic History and Civilization

This course treats selected topics in Islamic history and civilization from the rise of Islam to the present, exploring major political, religious, social and intellectual themes. Cross-registered with History 190. Four credits.

Intermediate Courses

Religious Studies 105 — American Religious History

A study of the American religious experience from colonial times to the present with an emphasis on major churches, persons, institutions, and movements. Cross-registered with History 116. Four credits.

Religious Studies 106 — Buddhism Both semesters

A study of the Buddhist experience, emphasizing its beginnings in India (life and legends of the Buddha, development of Theravada and Mahayana) as well as developments in China and Japan, with special emphasis on Zen. Four credits. *Lewis*

Religious Studies 107 — Islam in the Middle East: Religion and Development

Islam and the challenge of modernity in the Middle East and the Indian subcontinent as witnessed in the traditional and modern Muslim responses to change: political (pan-Islamism, nationalism, socialism) and social (the changing family, women's rights, etc.). Four credits.

Advanced Courses

Religious Studies 217 — Approaches to the Study of Religion

A seminar probing the various methods by which religions and religious phenomena may be studied. Focus upon the presuppositions of the methods central to the study of religion, whether historical, psychological, sociological, phenomenological, or structural. Recommended for Religious Studies majors. Four credits.

Religious Studies 220 — Comparative Religious Worldviews Not offered this year

A systematic exploration of similarities and differences both within and among several traditions (Buddhism, Judaism, Christianity, and Islam) and an examination of several key issues which emerge from the encounter of Christianity with other world religions. Four credits. *Lewis*

Religious Studies 260 — Mystics and Zen Masters

A comparative analysis of the foundations, method or path, and nature of the mystical experience as seen in several religions, among them the Judaeo-Christian, Hindu, Zen Buddhist, and Islamic traditions. Autobiography and biography are utilized to examine the world of mystics and masters such as John of the Cross, Teresa of Avila, Sri Ramakrishna, Thomas Merton, al-Ghazzali, Dogen, et al. Four credits.

BIBLE

Introductory Courses

Religious Studies 18 — Introduction to the New Testament Both semesters

An introduction to early Christian literature and thought in the context of the emerging church. Particular attention paid to Jewish and Hellenistic influence upon the early Christian understanding and response to Jesus in the Gospels and Pauline epistles. Four credits. *Callahan*

Religious Studies 22 — Jesus and His Contemporaries Spring

An historical and theological study of Second Temple Judaism (520 B.C.E. to 70 C.E.) paying attention to the variety, richness and complexity of the Judaism of this period. Major Jewish groups are treated: Sadducees, Pharisees, Essenes, Priests, Scribes and Christians. Focus also is on apocalypse as a literary genre and apocalypticism as a worldview and social phenomenon. Attention is paid to the interrelatedness of belief, community structure, ethics, economics and politics. Special emphasis is placed on the ways in which Jesus has been seen to fit into this context. Four credits. *Murphy*

Religious Studies 26 — Introduction to the Old Testament Both semesters

A study of the major themes of the Hebrew Scriptures: creation, fall, exodus, covenant, promised land, the Davidic kingship, prophecy, wisdom, and apocalyptic. Reconstruction of the historical background of the themes with reference to ancient Near Eastern sources, as well as literary and theological analysis. Four credits. *Laffey*

Religious Studies 66, 67 — Introduction to Biblical Hebrew

A first course introducing the student to the grammar, syntax, and vocabulary of the Hebrew language. The second semester includes selected readings of biblical prose. Four credits.

Intermediate Courses

Religious Studies 101—Early Christian Communities

Employing methodologies drawn from cross cultural models of human interaction and sociological approaches to Christian origins, this course studies various models of community in early Christianity by paying special attention to social setting. Such issues as how Christian communities contended with cultural/environmental adaptation (survival), role of women, the poor, "outsiders" and the resolution of conflict are studied in order to determine what may be said about the social function of the NT writings as well as for the implications for Christian community today. Four credits.

Religious Studies 102— Early Christian Interpretations of Jesus

A study of different understandings of Jesus in the early Church in view of their historical, theological and cultural settings. Attention is paid to the New Testament Apocrypha, and hellenistic and rabbinic texts. Four credits.

Religious Studies 103 - Methods of New Testament Criticism

Study of the principles, methods and models used in New Testament interpretation, including textual, literary, form, redaction and structural criticism and the problem of historical reconstruction and theological analysis. Four credits.

Religious Studies 110 — The Land: Then and Now

An investigation of Israel's land as promise and gift, as jeopardized, as possessed, as lost and regained, and as symbol of Israel's fidelity to God. This seminar also probes "the land motif" as it has come to influence both ecology and contemporary Middle Eastern politics. Four credits.

Religious Studies 112 — The Gospels Fall

An in-depth study of the theological concerns of Matthew, Mark, and Luke as reflected in their varying presentations of the Christian kerygma. Attention paid to the literary and historical character of each Gospel as a unique expression of the traditions about Jesus and an exploration of selected contemporary modes of theological reflection as models for understanding the Evangelists as theologians. Four credits. *Murphy*

Religious Studies 116 — Art and Practice of Biblical Exegesis Not offered this year

An historical and literary study of the ways and means of Scriptural reading as they have developed within the Western religious traditions. The aim is to see how different exegetical principles and techniques reflect distinctive understandings of the text, the world, meaning, the critical reader and history. Attention is paid to rabbinic, early Christian, patristic, medieval, renaissance Reformation, 19th century historicist, modern and post-modern exegesis. Taught in tandem with "Literary Responses to Biblical Patterns of Meaning" (Interdisciplinary Sequence 20). Four credits. Staff

Religious Studies 119 — The Gospel of Matthew

The literary structure and theological emphases of Matthew's gospel and its place in the synoptic tradition. Four credits.

Religious Studies 125 - John in the New Testament

This seminar is a study of the structure and theology of the fourth gospel; the epistles of John; the Book of Revelation. Four credits.

Religious Studies 129 — Paul the Apostle Spring

A study of Pauline Christianity, its place in the early church using the letters of Paul, the Deuteropauline letters and the portrait of Paul in Acts. Attention paid to the structure and development of Paul's thought, its Jewish and Hellenistic backgrounds. Four credits. *Reiser*

Religious Studies 134 — Women and the Bible Fall

This seminar has been developed for students who wish to learn more about the feminist interpretation of Scripture. It studies the emergence of patriarchy and its effects on Ancient Near Eastern society, as well as the influence of patriarchy on the biblical texts. Particular attention is paid to character portrayal within the patriarchal family structure, as well as to the characteristics of those females who emerge as exceptions to patriarchy. Further, the similarities and differences between the portrayal of women in the Old Testament and their depiction in the New Testament literature are examined. Four credits. *Laffey*

Religious Studies 145 — Princes, Prophets, and Wise Men

A study of the interaction of the socio-religious groups in ancient Israel represented by the conflict between the prophets and the wise men. Study of the particular tensions which exist in

religion as an organization and as a way of life. Focus upon the key elements which represent the message of the wisdom literature and the proclamation of the prophets of Israel. Four credits.

Religious Studies 150 — The Quest for the Historical Jesus Spring

Since the Enlightenment scholars have recognized the difficulties involved in trying to recover the historical Jesus. This course acquaints the student with the exegetical and historical problems encountered in the quest for the historical Jesus; reviews the history of scholarship to the present to determine presuppositions, methods and results; examines the range of options currently available and the exegetical strategies used to support those options; encourages the student to take up an option and defend it. Four credits. Murphy

Religious Studies 153 — Parables and Paradox Not offered this year

This seminar is a study of the nature of parable in its form and function, the history of parable study, parables in the setting of the ministry of Jesus and the theologies of the Evangelists. Attention paid to literary criticism of the parables of Jesus. Four credits. Staff

Religious Studies 159 — The Psalms

This seminar examines such themes as: The role of the Psalms in Israel's worship (e.g., the dating of the Psalms, their classification, their function as sung prayer, the God of the psalmists); the relationship of the Psalms to the New Testament; the functions of the Psalms in the Christian liturgy. Four credits.

Advanced Courses

Religious Studies 215 — Old Testament and Contemporary Prophets Not offered this year This seminar examines the function of prophets in the Ancient Near East, including Israel, and the prophetic literature of the Bible (Former and Latter Prophets). Investigates the role of Israel's prophets as spokespersons of Yahweh and social critics. Finally, after determining how contemporary society is similar to and different from ancient Israel's, an attempt is made to develop, if possible, criteria against which to identify the prophetic personality, then and now. Four credits. Laffey

Religious Studies 218 — The Mystery of Evil and Suffering

This seminar examines the symbols of evil through the primary experiences of it as defilement, guilt and sin. The conversion of these symbols of human experience into the myths of the origin of evil, the development of the belief in Satan, etc. Includes the content and consequences of evil as understood by the Deuteronomistic historians, the prophets and Job, as well as more contemporary literary approaches to the same mystery. Four credits.

Religious Studies 225 — Scripture/Story and Value Not offered this year

A study of the biblical text as persuasive discourse through concentration upon the language and narrative character of selected New Testament texts in order to explore the ways in which the biblical text challenges, proposes and affects change in fundamental value. Special areas of concern are the relationship between reader and text, the nature and processes of communication and interpretation and the literary character of the biblical text. Four credits. Staff

THEOLOGY

Introductory Courses

Religious Studies 12 — Christ the Teacher: Theology of Word and Sacrament

The first part of this course examines the nature and role of worship and prayer in Christian life, and the Christian understanding of God as the One who creates, who redeems, and who is revealed in the person of Jesus. The second part studies the meaning and place of sacraments in Christian living. Particular attention is given to baptism, reconciliation, and eucharist as liturgical events which focus the Gospel's call to repentance, to faith, to worship, and to service. Four credits.

Religious Studies 13 — The Problem of God

A systematic and historical presentation of the debate focusing on the doctrine of God, God's nature and knowability. The course is divided into two equal parts: a discussion of the problem of understanding God in a non-mythological way and a discussion of the reasonability of belief in God. Four credits.

Religious Studies 14 - Introduction to Theology Fall

Explores modern, critical approaches to the problem of correlating three distinct poles: the results of biblical interpretation, the findings of the human and natural sciences, and personal experience. Considers the application of modern theological method in several contemporary responses to the classical issues of God, the human person, sin and grace, Jesus Christ, and the Church. Four credits. *Nickoloff*

Religious Studies 15 — The Church in the Modern World Spring

A basic presentation of how the Church sees itself, its mission, and its ministry in today's world in terms of the major decrees of the Second Vatican Council. Topics include: the changing nature of the Church's attitude toward other world religions; forms of ministry, ecclesiastical authority, and infallibility; and the Church's approach to contemporary issues of justice and peace as reflected in papal teaching and statements of the United States Bishops' Conference. Four credits. *Hinsdale*

Religious Studies 16 — Introduction to Roman Catholicism Spring

Introduces students to the major teachings of Roman Catholic Christianity. Topics include: authority, the place of word and sacrament, community, truth claims, structures, and the church as an actor in the world today. Specific attention is given to such questions as: What do Roman Catholics believe? Can/do the teachings of the church change? May one dissent from these teachings and still be a member of the Roman Catholic Church? How does Roman Catholicism differ from other forms of Christianity? Four credits. *Hinsdale*

Religious Studies 24 — Problems in the History of Christian Thought

Examines in detail one of the problems that has occupied the attention of Christian theologians and philosophers throughout the ages. The range of problems includes the relationship between faith and reason, the existence of God, the nature of evil, the immortality of the soul and the nature of religious language. Four credits.

Religious Studies 32 — Christian Sacraments Both semesters

Examination of the basic sacramentality of human experience and its transformation by the life, death, and resurrection of Jesus of Nazareth. Role of sacramental liturgies in the process of individual and social Christianization. Four credits. *Cooke*

Religious Studies 33 — Patterns of Discipleship: Introduction to Christian Spirituality Spring An introduction to spirituality as discipleship. Examines the lived experience and writings of influential 20th-century spiritual leaders, including Dorothy Day, Thomas Merton, Martin Luther King, Jr., and Gustavo Gutierrez. Focus on the quest for justice as a religious imperative in the modern world. Four credits. Nickoloff

Intermediate Courses

Religious Studies 108 — Development of Christian Personhood Fall

Growth in Christian faith as a deeper dimension of the process of human maturation. The Christian perspective on, and transformation of, self-identification, love, sexuality, suffering, responsibility, and freedom. "Grace" and "salvation" as intrinsically linked with healthy psychological development. Four credits. *Cooke*

Religious Studies 126 — Readings in Feminist Theology Spring

This seminar is designed to introduce students who are already conversant with Judaism and Christianity to a feminist critique of those prophetic traditions. It considers the close correlation between religious expression and culture and examine how Judaism and Christianity have reinforced a patriarchal culture. Further, the students endeavor to identify and deconstruct the patriarchal underpinnings in order to develop more egalitarian religious models. Four credits. Laffey

Religious Studies 135 - Contemporary Roman Catholic Thought Both semesters

Aims to develop an appreciation for the work of contemporary Catholic Christian theology, to see its range of inquiry, and to be introduced to theologians by reading them first hand. Four credits. Cooke

Religious Studies 136—The Makers of Modern Theology: Religion and Common Sense Not

offered this year

Each semester this seminar examines in depth one author or school of thought that has helped to shape modern theological thought. Topics include Kierkegaard, Nietzsche, Liberal Protestantism, Roman Catholic Modernism, Liberal Catholicism, Bultmann, Barth and Tillich. Four credits. Staff

Religious Studies 137 — Modern Religious Thought: Coping with Modernity Not offered this

An introduction to the principal themes in Christian (Protestant and Roman Catholic) theology since the Enlightenment. Special emphasis is placed on the challenges to traditional Christian belief from scientific and historical criticism, Marxism, and the Enlightenment emphasis on the autonomy of human reason. Among the theological responses to these critiques to be discussed are Liberalism, Modernism, Fundamentalism, Revivalism, and Existentialism. Four credits. Staff

Religious Studies 138 — Modern Religious Thought: The 20th Century Not offered this year A study of three issues that emerge in the history of theology from 1870 to the present: the doctrine of God, the interpretation of religious statements (especially Biblical statements), and the relationship between faith and reason. Movements discussed include: Liberal Protestantism, Modernism, the revival of Thomism, nihilism, existentialism, logical positivism and process theology. Four credits. Staff

Religious Studies 139 — Jesus: God/Human Both Semesters

An introduction to the discussion of the nature and significance of Jesus Christ. Primary attention is paid to the varied New Testament perceptions of Jesus, but the classical formulae of the Councils of Nicaea and Chalcedon as well as the contemporary debates concerning the divinity of Jesus are also treated in detail. Four credits. Reiser

Religious Studies 157 — Modern Catholic Theology Both semesters

This course acquaints the student with selected ethical, biblical, historical, and theological questions which are being raised and addressed by contemporary Catholic theologians. Several major works are read and discussed in detail. Four credits. Nickoloff

Religious Studies 175 — Theology of Liberation Both semesters

The "theology of liberation" arises out of a deep compassion and critical reflection on the situation of the poor and the oppressed, and, building on the Marxian analysis of alienation in modern society, shows that the consequent demand for liberation is one which Christianity is almost uniquely prepared to meet. Four credits. Nickoloff

Advanced Courses

Religious Studies 231 — Early Christian Writers Not offered this year

This seminar introduces students to the faith and thought-world of selected Church writers from the second to the fifth centuries: Justin, Irenaeus, Origen, Athanasius, Gregory of Nyssa, and Augustine. Studies their method of interpreting Scripture, their exposition of Christian doctrine, the way in which they bridged faith and culture, and their insight into the life of prayer and the practice of faith. Four credits. *Reiser*

Religious Studies 232 — Theology of Revelation: Working Towards a Theological Understanding of Truth

Devoted to understanding the theological notion of the word of God, how that word addresses humans, and the process of its interpretation and transmission. Drawing on the work of both theologians and philosophers, examines theories of revelation and tradition, theology's use of Scripture, the nature of religious truth, and the need for a contemporary Christian apologetic. Four credits.

Religious Studies 233— Comparative Theology: Christianity and the Encounter of World Religions

An exploration of the meaning and significance of Christianity's encounter with the Hindu, Buddhist, and Islamic traditions. The course is divided into two parts: first, an investigation of major theological questions emerging from the dialogue of world religions (e.g., nature of revelation, prophecy, Christology, truth claims, status of founders, missions, etc.); and second, a study of several Christians who have encountered the East both theologically and existentially. Four credits.

Religious Studies 271 — Contemporary Christology Fall

A comparative analysis of the christological writings of major contemporary Catholic and Protestant theologians, with emphasis given to an examination of each theologian's understanding of the centrality of Jesus in modern society, the nature of the Scripture and what it reveals about Jesus, and the nature of faith in Christ and in His resurrection. Prerequisite: Cumulative QPI of 3.0 or better. Four credits. *Reiser*

Religious Studies 275 — Early Christian Literature

Reading in the original of selected works from the Patristic period. Cross-registered with Latin 150. Four credits.

ETHICS

Introductory Courses

Religious Studies 41 — Contemporary Christian Morality Not offered this year

A suggested methodology for evaluating contemporary Christian thought and practice in major areas of ethical concern. An in-depth discussion of responsible decisionmaking in an age of situationism and ethical relativism, with detailed application to crucial moral dilemmas facing modern persons. Four credits. *Staff*

Religious Studies 51 — Faith/World Poverty Fall

Introduction to the challenge which the issues of poverty and the poor pose for our understanding of the Christian faith, especially as articulated by the Christian community of the Third World. That challenge has two sides: one is the reality of oppression and domination and the other side is that of liberation and self-determination. Four credits. *Mercier*

Intermediate Courses

Religious Studies 109 — Critical Issues in Religious Thought: War/Peace Spring

An introduction to some of the important ethical issues involved in war/peace studies. Beginning with an examination of the two major religious traditions, just war theory and pacifism/nonviolence, the course then turns to an examination of the experience of war by a focus on World War II and Vietnam. In light of an examination of both approaches to issues of war and peace and the experiences of war the course concludes with a critical analysis of the American Bishops' pastoral *The Challenge of Peace*. Four credits. *Mercier*

Religious Studies 130 — Law, Medicine and Ethics Fall

A study of the legal and moral aspects of selected issues in medicine: informed consent, sterilization, organ donation, compulsory medication, allocation of scarce resources, death and dying, national health insurance option, etc. Four credits. *Enman*

Religious Studies 141 — Social Ethics Spring

Focus on the social dimensions involved in an adequate formulation of Christian ethical understanding which takes seriously issues such as social justice, economic justice, conflicts between Church and State, and the questions of nuclear war/weapons in the search for peace. Four credits. *Mercier*

Religious Studies 146 — Business Ethics Fall

Christian reflection upon the ethical dimensions of modern business practices. Case studies focus on such issues as investment practices, political involvement of multinational corporations, economic distribution, advertising policy and consumerism. Prerequisite: permission of instructor. Four credits. *Mercier*

Religious Studies 189 - Marriage Today and Tomorrow Not offered this year

A study of the biblical, historical, and contemporary views of marriage in Roman Catholic theology, with application to modern cultural and psychological dimensions of human relationships. Treatment is also accorded modern challenges to the viability of monogamy and of permanent commitment. Four credits. *Staff*

Advanced Courses

Religious Studies 230 — Life and Death Issues Not offered this year

A study of issues concretely relating to the qualitative human dimensions of personal and social living, together with an evaluation of current theories of death and the right to die humanly. Questions pertinent to the substance of medical ethics are the focus, but are not comprehensive of course content. Four credits. *Staff*

Religious Studies 235 — Economics and Ethical Values Not offered this year

Ethical dimensions of contemporary economic practices, focusing on such issues as investment practices, population, food and energy resources, ecology, income distribution, etc. Also the ethical dimension of capitalism, democratic socialism and communism as alternative economic models is explored. ISP Sequence IV. Four credits. *Mercier*

Religious Studies 237 — Religion and Social Protest Not offered this year

Explores the relationship between religion and social protest in modern American history. The central problems addressed include the manner in which religious-based ethical judgments are shaped in part by social conditions and perceptions and how social movements to some degree derive their power by an appeal to religious symbols and traditions grounded in communities or people. Four credits. *Mercier*

Religious Studies 240 — Catholic Social Reforms Spring

A social-historical review of the interplay of the American, French and Industrial Revolutions, economic liberalism (England), Catholic social pioneers (Lamennais, Montalambert, Lacordaire), socialism, communism (Marx), the *Kulturkampf* and *Risorgiarmento*, on Catholic social teaching culminating in Leo XIII's *Rerum Novarum*. The social teachings of 20th century Popes and Vatican II. Discussions of current relevant problems and practice. Four credits. *Mercier*

Religious Studies 277 — Supreme Court and Human Values Not offered this year

A case-study analysis of Supreme Court decisions focusing on the interaction of society and human rights. Topics treated include speech, press, privacy, obscenity, religion, abortion, and educational opportunity. Prerequisite: permission of instructor. Cross-registered with Political Science 205 — Four credits. Staff

Religious Studies 311 — Tutorial

Religious Studies 411 — Research Project

Sociology and Anthropology

Royce Singleton, Jr., Ph.D., Professor Victoria L. Swigert, Ph.D., Professor Stephen C. Ainlay, Ph.D., Associate Professor and Chair David M. Hummon, Ph.D., Associate Professor Rogers P. Johnson, Ph.D., Associate Professor Susan Rodgers, Ph.D., Associate Professor Edward H. Thompson, Jr., Ph.D., Associate Professor Christine Greenway, Ph.D., Assistant Professor Carolyn Howe, Ph.D., Assistant Professor

Sociology is a way of thinking about the social world — about people in relation to other people. Sociology requires us to think critically and analytically: digesting ideas, assessing the adequacy of an argument, and questioning the strength of evidence supporting an idea.

The curriculum in sociology is designed to provide a critical assessment of the modern world and a familiarity with the latest issues in social theory and research. The courses themselves feature the analysis of social institutions and social processes, problems that confront different people, the impact of public policy on societal problems, and the contribution of social science to policy implementation. The department also offers a number of courses in anthropology. In addition to providing an overview of the field, these courses introduce students to area studies on a cross-cultural approach to gender, religion, and other substantive areas.

The department works with students whose educational and career interests range from graduate study in health care management, communications, urban affairs, or gerontology to careers in business, government, law, medicine, and public health. Opportunities exist for advanced seminars and field research courses, independent research, directed readings, and participation in a sociology-related internship.

There are three levels of courses. The introductory level presents the basics of both sociological analysis and the sociological perspective. Intermediate courses are comprehensive examinations of significant topics and fields within sociology. The advanced courses offer an opportunity to undertake more intensive studies in specialized fields of sociology and to engage in individualized projects and research.

Ten courses constitute the major. All majors are required to take an introductory course, one course each in social theory and research methods, and one advanced seminar. The remainder of each major's program will be arranged in consultation with her or his departmental advisor.

Introductory Courses

Open to all students with preference given to sophomores and freshmen. Either course will satisfy the prerequisite for enrollment in intermediate-level courses. Only one introductory course can be taken for credit.

Sociology 101 — The Sociological Perspective Fall and Spring

A one-semester introduction to the principles of sociological analysis. Through a critical examination of selected topics and themes, this course develops a sociological perspective for the interpretation and understanding of cultural differences, age and sex roles, discrimination, the family and the workplace, bureaucracies, stratification, the problems of poverty. Four credits. Staff

Sociology 111 — Social Problems and Social Policy Fall and Spring

Critical analysis of social institutions and the formation and resolution of social problems. A range of problem areas is considered, including individual forms of deviance such as drug abuse, homosexuality, alcoholism, delinquency, divorce and mental illness and societal problems such as poverty, racism, sexism, aging and violence. In each area policy responses are discussed. Four credits. Staff

Anthropology 101 — The Cultural Anthropological Perspective Fall and Spring

A one-semester introduction to the main modes of cultural anthropological analysis of non-Western cultures, such as those of Melanesia, Polynesia, sub-Saharan Africa, Native America, and village societies in South America, India, and Southeast Asia. Topics include: ethnographic methods; concept of culture; symbolic communication; ecological processes; introduction to anthropological approaches to kinship, religion, gender, social change. Four credits. Greenway, Rodgers

Intermediate Courses

Open to all students who have taken one introductory course. There is one exception: Sociology 255 has no prerequisite.

Sociology 203 — Race and Ethnic Relations Alternate years

An examination of 1) various processes of racial and cultural contact between peoples, especially in regard to the origin and development of American minority groups, 2) various theories of racial and ethnic oppression, and 3) minority responses to oppression. Four credits. Singleton

Sociology 205 — Structures of Social Inequality Spring

Examination of major forms of structural inequality: caste, class and status differentials in the patterns of work, power and quality of life. Topics include theories of stratification, ideologies of equality and inequality, causes and consequences of changing patterns of social class, and the varieties of human experience with social inequality. Four credits. Johnson

Sociology 210 — Social Change in Latin America Spring

Introduces the study of social change, examines the explanations for development and underdevelopment, critically analyzes different models for breaking out of underdevelopment, and contrasts the different national experiments in social transformation (e.g., the Cuban, Chilean and Nicaraguan cases). Four credits. Howe

Sociology 215 - Sociology of Law Alternate years in spring

A study of the development, implementation and enforcement of law. Topics include the sources of law, its role as an institution of social control, and an intensive treatment of the various stages of the legal process. Four credits. Swigert

Sociology 217 — Criminology Fall and Spring

The study of crime and society. Areas of focus include patterns of criminal behavior, theories of crime causation, and the administration of criminal justice. Four credits, Swigert

Sociology 219 — Deviant Behavior Fall and Spring

An introduction to the study of social deviance. Topics include beliefs, behavior and attributes that have come to be disvalued, the careers of deviant individuals, and the major theories proposed to explain the causes and nature of non-conformity. Four credits. Swigert

Sociology 223 — Methods of Social Research Fall

An introduction to the logic and procedures of social scientific research. Readings, lectures, and laboratory exercises are directed toward the development of skills in theory construction, research design, operationalization, measurement, data collection, analysis and interpretation. Four credits. Singleton

Sociology 235 — Community Fall

Sociological perspectives on the local community in American society. Topics include the urbanization of community life, contemporary forms of community (central cities, suburbs, small towns, etc.), the social construction of neighborhood, and community imagery. Emphasis is on community research, including field study of Worcester. Four credits. Hummon

Sociology 241 — Development of Social Theory Spring

A descriptive and critical study of the 19th and early 20th century social thought which informs contemporary sociological theory. Some attention is given to historical influences on emerging sociological theory. Emphasis is placed on four major theorists — Durkheim, Marx, Weber, Simmel — and on the 20th century developments in functionalism, symbolic interactionism and the sociology of knowledge. Four credits. Johnson

Sociology 255 — Social Psychology Spring and Fall

A survey of the interdisciplinary field of social psychology. Students are acquainted with: 1) the nature of the field and its range of topics, including person perception, attitudes, attraction, social interaction, and social influence processes; and 2) the theories, models, and methods used to understand human social behavior. Four credits. Singleton

Sociology 256 — Self and Society Fall

The social processes central to the formation of the self. Development of self is traced through childhood, adolescence, young adulthood and middle age. Explicitly examines the individual's experience of everyday life — her/his confrontation with a variety of social institutions and the continually changing psychological, physiological and socio-historical contexts. Four credits. Ainlay

Sociology 257 — Aging and Society Spring

A thorough introduction to the sociological study of people's experience of late life. Strives to increase awareness of the social, cultural, and historical variability of aging by examining people's own accounts of old age, social psychological adaptions, changing institutional involvements, and the confrontation with dying and death. Four credits. Ainlay

Sociology 260 — American Culture Spring

An introduction to the sociological study of the dominant beliefs, values, and ideologies of American culture: e.g., individualism, agrarianism, racism, etc. Special emphasis on the historical and social production of popular belief, the social sources of cultural diversity, and popular culture and the mass media. Four credits, Hummon

Sociology 261 — Sociology of Religion Every other year

An analysis of religion as a socio-cultural product. Emphasis on the interrelationship between religion and society in a cross-cultural perspective. Major topics include the social functions of religion, the organization of religious practice and the impact of social change on religion. Four credits. Ainlay

Sociology 263 — Medical Sociology Fall

A critical study of the institution of modern medicine. Special attention is paid to socio-cultural and political factors influencing susceptibility, diagnosis and treatment. Topics include the social meaning of disease, patienthood, the medical profession and the organization of medical care. Four credits, Thompson

Sociology 264 — Sociology of Power Fall

A critical study of social and cultural bases for political democracy and of existing constraints and limitations upon its realization. Emphasis is given to major power theories, the diverse forms and processes of power, and the consequences of these differences for the exercise and use of power. Assessment of the problem of responsible power in contemporary society. The sociological perspective is stressed throughout. Four credits. Johnson

Sociology 271 — The Family Spring

Examination of patterns in American family behavior. Strives to increase awareness of the social, cultural, and psychological facets of family life by examining kinship relations, child socialization, dating behavior, patterns of sexual activity, parental decisions, family development, divorce, violence in the family. Four credits. Thompson

Sociology 272 — Intimate Relationships Alternate years

Introduces students to the sociological study of intimacy. Intimate relationships inside and outside the family institution are covered. Topics include the sociology of emotions, the major theories on intimacy, intimate relations and intimate relationships, the vulnerability of bonds, and a critical examination of old forms versus new forms of intimate relationships as social control. Four credits. Thompson

Sociology 275 — Gender in Society

An introduction to the dynamics and consequences of gender roles and sexual stratification in both Western and Third World cultures. Topics include mechanisms of sexual discrimination, occupational stratification and labor market analysis, and the behavior and treatment of men and women in large organizations, including industrial firms, health care and mental health services, and schools. Four credits.

Sociology 276 — Women and Society Alternate years

Women's status in American society and the ways in which women's subordinate status is socially created and maintained in the workplace, in the family, and in politics. Sociobiological, socialization, psychoanalytic, Marxist and feminist interpretations are examined. Four credits. Howe

Anthropology 210 — Ethnographic Field Methods Alternate years

An examination of cultural anthropology's main data-gathering strategy: long-term ethnographic fieldwork of small communities, often located in quite foreign, non-Western cultures. Topics include: review of the methodology literature since Malinowski; participant observation; in-depth interviews; designing field studies; oral histories; spanning deep cultural divides via fieldwork. Four credits. Rodgers

Anthropology 255 — Gender in Cross-Cultural Perspective Alternate years

A comparative, cultural anthropological examination of the way diverse non-Western cultures define femininity and masculinity. Drawing on ethnographic studies from Melanesia, Southeast Asia, Africa, and other non-European regions, the course will analyze gender as a cultural construction, in relation to other systems of social hierarchy. Rodgers, Greenway

Anthropology 262 — Anthropology of Religion

A comparative, cultural anthropological examination of systems of religious action and belief, with special stress on non-Western village religions. Topics include: symbolic, structuralist, and ecological approaches to ritual and myth; religious changes as village societies convert to world religions; shamanism, trancing, and other major religious forms in cultures of Southeast Asia, South America, Native America, Africa, India, and Melanesia. Four credits.

Anthropology 275 — Cultures of Southeast Asia Alternate years

A cultural anthropological inquiry into some of the main social systems and idea systems of village cultures of mainland and island Southeast Asia (with stress on Indonesia, Malaysia, Thailand, and the Philippines.) Attention also to processes of modernization in the region. Kinship, ritual, myth, political thought, oratory, gender in comparative, regional context. Four credits. *Rodgers*

Advanced Courses

These courses are open to all junior and senior students who have taken 101 or 111 and the other prerequisites listed. Sociology majors are required to elect two of these courses.

Sociology 319 — Special Topics in Social Control Spring

An in-depth analysis of selected topics in criminology, the sociology of law, and the sociology of deviant behavior. The issues are drawn from among the major contemporary developments in these substantive areas with special attention to the relevant theoretical and empirical debates. Prerequisite: Permission of instructor. Four credits. Swigert

Sociology 324 — Social Statistics with Computer Applications Alternate years in Spring An introduction to statistical methods used in the analysis of sociological data. Both descriptive and inferential statistics are covered, with most examples and problems involving computeraided analysis of survey data. Does not require a knowledge of computer programming, nor does it require more than a working knowledge of elementary algebra. Four credits. Singleton

Sociology 330 — The Sociology of Place Spring

An examination of the interaction of people and place. Substantively, it investigates different types of places: homes, neighborhoods, communities, and regions. Theoretically, it analyzes how people in society construct, use and interpret places, and how places, in turn, influence social behavior. Prerequisite: Permission of instructor. Four credits. *Hummon*

Sociology 341 — Sociology of Knowledge Every year

An advanced seminar in social theory examining the ways in which knowledge is socially distributed and maintained. One goal is to cover the theoretical literature in the sociology of knowledge. Another is to give that theory substance by examining various topical aspects of what people in society come to "know" about themselves and about their world. Four credits. *Ainlay*

Sociology 357 — Small Group Processes Alternate years in Fall

An introduction to the study of small groups. Topics include social influence processes, group development, and group structure. A major part of the class involves experience-based learning. Prerequisite: Sociology 101, 111, or 255. Four credits. *Singleton*

Sociology 375 — The Sociology of Men Alternate years

Examines men's experiences as men and cultural blueprint for male role. Topics include men's antifemininity, homophobia, inexpressiveness, success-orientation, relations with family, and grandparenting. Prerequisites: Permission of instructor. Four credits. *Thompson*

Sociology 376 — Women and Work Every year

Examines women's work from both an historical and comparative perspective. Starting with a look at women's work in colonial America, the seminar traces the changes as well as the continuities in women's work over time. Particular attention is given to the variation in the work experience of different groups of women, depending on their class, racial, ethnic, and family status. Prerequisite: Permission of Instructor. Four credits. Howe

Sociology 390, 391 — Seminar: Selected Topics in Sociological Analysis

A critical examination of selected topics utilizing sociological theory and research methods. Topic and staff rotate. Prerequisite: permission of instructor. Four credits each semester. *Staff*

Sociology 394, 395 - Directed Research

Students may undertake independent research projects under the direct supervision of a faculty member. Individuals contemplating a research project should make inquiries during their junior year, since the project is usually initiated by the beginning of the senior year. Preference for sociology majors. Four credits each semester.

Sociology 396, 397 — Directed Reading

An individualized reading program generally addressing a topic in sociology not covered in course offerings. These reading tutorials are under the supervision of a faculty member in sociology, usually limited to the senior year, and arranged on an individual basis. Open to selected students with a preference for sociology majors. Four credits each semester.

Sociology 398, 399 — Special Projects

Program for individual students who wish to pursue supervised independent study on a selected topic or an advanced research project. Ordinarily projects are approved for one semester. Open to selected junior and senior students with preference to sociology majors. Each project must be supervised by a faculty member. Four credits each semester.

Theatre

Lynn Kremer Babcock, M.F.A., Associate Professor and Chair Edward J. Herson, M.A. (T), Associate Professor Mary Paula Hunter, M.F.A., Lecturer William J. Rynders, M.F.A., Associate Professor Steve Vineberg, Ph.D., Assistant Professor

This department teaches the understanding of scripts and their interpretation on stage. When we study drama, we use critical and historical approaches, together with performance to see the literature as theatre. When we learn to make theatre, we learn to stage our interpretation of the playwright's world. In dance courses we learn the discipline of modern dance and Ballet technique as well as composition and dance history.

The fully equipped Fenwick Theatre houses the major productions of the Theatre Department, dance concerts and other theatrical productions. Studio 481 and The Pit house a variety of studio productions, workshops, and classes. Work on any production of the department — acting, backstage, or front of house — is open to all Holy Cross students, faculty and staff.

The Theatre Department offers a major with a 12-course curriculum. The following courses are required: Theatre History; Greek Drama or any Greek literature with drama emphasis (Classics Department); Shakespearean Dramaturgy; Modern Drama (English Department) or Contemporary Drama (English Department) or Naturalism; American Drama, 1920-Present; Basic Acting; Scene Study; and the Voice in Acting or Movement for the Actor or Scene Design. Electives are chosen from among the following: Drama Survey, Theatre of Style, Anti-Realism, Political Theatre, Contemporary American Playwrights, American Film, Political Expression in

Performance, Acting Style, Acting for an Audience, Acting Recital, Managing Theatrical Production, Scene Design, Costume Design, Lighting Design, Directing, Writing Plays and Tutorials.

Theatre 55 — Drama Survey Not offered this year

A study of representative plays from the Greeks to the present. Lectures cover historical and critical material and script analysis. About half the class meetings are devoted to in-class performance and discussion of short scenes. The goal is understanding the plays as theatre. Four credits. *Herson*

Theatre 60 — Introduction to the Theatre Not offered this year

This course is an introduction to theatrical spaces, dramatic forms, the contribution of each theatre artist (guest designers and directors lecture), and theatre criticism. Emphasis is on exercises and projects to experience theatre as an art form. Class attends approximately three productions. Four credits. *Herson*

Theatre 61 — American Film Spring

This introductory course teaches the student how to "read" a movie and deals with issues of film history, genre and criticism. The syllabus includes films from 1932 to the present. Four credits. *Vineberg*

Theatre 70 — Modern Theatre Fall

An introductory study of modern playscripts through close critical reading of the texts in their cultural and theatrical contexts and through in-class performance projects. It also includes a practical introduction to acting. Four credits. *Herson*

Theatre 81 — Understanding Dance Fall

An historical background in dance as an art, and a physical experience of the work of the dancer and the craft of the choreographer. Extensive reading, plus technique. Four credits. *Hunter*

Theatre 101 — Basic Acting Both semesters

This course offers, through classroom exercises, improvisations and preparation and performance of scenes from major plays, an approach to the understanding, appreciation and practice of the art of acting and theatre. Five credits. *Babcock*

Theatre 102 — Voice in Acting Spring

Emphasis on development of the human voice, which is critical for the young actor and very useful for potential speakers in a variety of disciplines. Students learn how to correct regionalisms, support the voice with breath, and develop a flexible, healthy voice. Five credits. Babcock

Theatre 103 — Scene Study Fall

Analysis from a variety of periods, rehearsal and performance of scenes ranging from contemporary to restoration. Physical and vocal exercises from Basic Acting will be continued. Five credits. *Babcock*

Theatre 126 — Scene Design Alternate years in spring; not offered this year

Principles of scenic design and script analysis as they are used to create an environment for the action of the play. Includes an historical survey of scenic design, theatre architecture, and period style and drafting and rendering techniques. Work on a set for a Fenwick production provides practical experience. Five credits. *Rynders*

Theatre 151 — Shakespearean Dramaturgy Spring

Thorough examination of the theatrical meaning of six plays through study of ways of staging Shakespeare and through rehearsal and in-class performance and discussion of selected scenes. Four Credits. *Herson*

Theatre 163 — American Drama 1920 to the Present Alternate years in spring; not offered this year

Literary and theatrical analysis of the plays in the context of the ideas and theatrical history of their times. Vineberg

Theatre 165 — Naturalism Alternate years in Fall; not offered this year

An examination of naturalism (realism) as a theatrical style beginning with Zola, Ibsen, Strindberg, Shaw, Chekhov, and ending with the work of contemporary film makers. Four credits. *Vineberg*

Theatre 180 — Theatre Crew Both semesters

Two hours of work per week on current productions plus running crew for major production. Required for all five credit courses. No credits. *Rynders*

Theatre 181 — Movement for the Actor Spring

A course which analyzes movement so that it can be practiced intelligently by the actor. Four credits. *Hunter*

Theatre 204 — Acting Style Fall

This advanced class focuses on Shakespearean scene study and monologues. Students will prepare contrasting pieces that will be juried at the end of the semester. Five credits. *Babcock*

Theatre 226 - Managing Theatrical Production Fall

The course examines in detail responsibilities and duties of the design and technical staff for a production during planning, pre-production, and performance phases. Practical experience in all backstage areas is part of course work. Five credits. *Rynders*

Theatre 228 — Lighting Design Spring

A study of the properties of light and the objectives of stage lighting as used for drama and dance. Includes basic electricity and its control, lighting equipment, and drafting. Practical experience is obtained through running and designing a production. Five credits. *Rynders*

Theatre 240 — Directing I Spring

Essentials of the art. Focus is on developing a production concept and on working with actors. Basics of managing movement, visualizing relationships, and arranging space. Final project is a studio production of a one-act play. Four credits. *Herson*

Theatre 250 — Writing Plays Fall

Methods and sources for generating script ideas. Evaluation and structuring of material created. Testing of scripts through staged readings and workshop productions. Final workshop presentation of scripts for a small audience. Four credits. *Herson*

Theatre 255 — Iconoclasts Not offered this year

The study of plays which confront the commonly and comfortably professed values of their times. A critical examination of the plays' assumptions, images, and forms through analysis and performance. Four credits. *Herson*

Theatre 257 — Anti Realism Not offered this year

Symbolism, surrealism, and absurdism in the theatre. Representative plays will be studied through analysis and performed. Four credits. *Herson*

Theatre 259 — Modern Drama: Staging the Text Not offered this year

The course focuses on how analysis, both literary and theatrical, informs production. Strong emphasis is placed on how actors analyze the text and on how they bring their analysis to bear upon rehearsal and performance. Four credits. *Herson*

Theatre 261 — Film as a Narrative Fall

This advanced course deals with narrative elements in films (point of view, time, structure, tone). Part of an interdisciplinary sequence on narrative; taught in conjunction with "What's a Story?" Literature, Narrative, Experience (English). Four credits. Vineberg

Theatre 263 — Contemporary American Playwrights Spring

The texts explored in this course change according to the current offerings of the Fenwick Theatre Season. Students take a close look at the work of two to five American playwrights. Four credits. *Vineberg*

Theatre 269 — Political Theatre Fall

This course examines theatre and film that either espouses a political point of view or else deals with political issues. Four credits. *Vineberg*

Theatre 281 — Ballet I Spring

Beginning Ballet technique. Four credits. Hunter

Theatre 283 — Ballet II 'Fall

Intermediate Ballet technique. Four credits. Hunter

Theatre 285 — Intermediate Modern Dance Spring

Intermediate modern technique plus choreographic problems. Four credits. Hunter

Theatre 305 — Acting Recital Fall

The course is designed for the individual needs of advanced acting students. Rehearsal and performance in a major production is the main basis of grading. Five credits. *Staff*

Theatre 306 — Acting for Audience Spring

A continuation of Acting 5. Four credits. Staff

Theatre 400 — Tutorial/Theatre Both semesters

Directed study in selected theatre, dance and film topics. Acting, directing, playwriting, literature, dance, stage management, set, costume, lighting and sound design, film history, film acting and screen writing. Four credits. *Staff*

Visual Arts

Virginia C. Raguin, Ph.D., Professor

Terri Priest, M.F.A., Associate Professor

Rev. John P. Reboli, S.J., Ph.D., Associate Professor and Chair

Susan P. Schmidt, M.F.A., Associate Professor

Joanna E. Ziegler, Ph.D., Associate Professor

Bryan V. McFarlane, M.F.A., Assistant Professor

Marion Schouten, M.F.A., Assistant Professor

Maggi Brown, B.F.A., Lecturer

Henry J. Cataldo, M.F.A., Lecturer

Ellen Lawrence, M.A., Lecturer

Timothy R. Rodgers, Cand. Ph.D., Lecturer

The Visual Arts Curriculum is designed as an integral part of the liberal arts program of the College. Its aim is to increase student sensitivity to the arts, to refine the powers of critical analysis and to provide the student with means of creative expression. A program of visiting artists and critics allows all students to develop an understanding of fundamental historical and

contemporary issues. The department also works closely with the exhibition program of the College's Cantor Art Gallery and that of the Worcester Art Museum. Introductory courses are open to all students without prerequisites. Art majors are expected to take their courses in a proper sequence as developed by the student and department advisor.

Requirements

There are two major concentrations in the Visual Arts Department: (1) Art History and (2) Studio.

The Art History major requires a minimum of 10 courses. This includes 2-D or 3-D Fundamentals, an additional studio elective, two semesters of Survey of Art and six electives in art history, three of which must cover the area requirements of Ancient/Medieval, Renaissance/Baroque and Modern. The Concentration seminar is mandatory and fulfills one of the six electives.

The Studio major also requires a minimum of 10 courses. This includes two semesters of Survey of Art, 2-D or 3-D Fundamentals and Drawing I. The Studio Concentration Seminar is mandatory during the Junior or Senior year. The remaining five (maximum of nine) courses are selected from upper level courses in Drawing, Painting, Printmaking, Design, Photography and Sculpture, forming a coherent progression in concept and skills. In addition, Studio Majors are required to attend the Visiting Artist presentations and participate in Majors Critiques each semester. Studio Majors present their work in the student-run Majors Exhibition each Spring.

VISUAL ARTS HISTORY

Introductory

Visual Arts History 101 AND 102 — Survey of Art I and II

These two courses are the standard introduction to the discipline and stress the acquisition of basic visual skills as well as a comprehensive understanding of the major style periods in the history of art. Survey I begins with the prehistoric era and extends to the Gothic period. Survey II begins with the Renaissance and ends with the beginning of abstract art before World War I. Intensive use of the collections of the Worcester Art Museum, including faculty conducted tours, is an integral part of these courses. The courses may be taken as separate units or in sequence. Staff

Intermediate

Most intermediate courses require Survey I or II. This requirement may also be fulfilled, pending the discretion of the instructor, by experience acquired by personal study. Intermediate courses are divided into two types of inquiry: Historical Periods and Criticism and Themes.

HISTORICAL PERIODS

Courses in Ancient Greek and Roman Art-offered by the Classics Department. These courses are also cross-registered with art history.

Visual Arts History 204 - Medieval Art

This course deals with art from the beginning of a new European west under Charlemagne, 800 A.D., to the age of the great cathedrals in the 13th century. Architecture, manuscript illumination, stained glass, and sculpture are included. A strong element of Christian symbolism should be expected. Prerequisite: Survey I or permission of the instructor. Four credits. *Raguin*

Visual Arts History 205 - Early Renaissance Art

This course examines painting and sculpture of the 14th and 15th centuries in Italy in terms of historical and cultural context, for example, the evolution of secular art and the status of the artist. Prerequisite: Survey II or permission of instructor. Four credits. *Baskins*

Visual Arts History 206 — Northern Renaissance Art

The Renaissance in the North extends from the 14-16th centuries in Germany, Belgium, England and France. The panel paintings of Van Eyck, Van der Weyden, and Hugo van der goes are studied in detail. The art of printmaking, as exemplified by the works of Durer, is included. Prerequisite: Survey II or permission of the instructor. Four credits. *Raguin*

Visual Arts History 207 — Baroque and Rococo Art

This course studies the diverse styles that emerged in European painting, sculpture and architect during the 17th and 18th centuries. The era begins with the "High" Baroque art of the Counter Reformation, contrasted with the developments of Realism and the revival of Classicism. These styles enter a new phase in the eras of the Rococo and the French Revolution. Prerequisite: Survey II or permission of the instructor. Four credits. *Baskins*

Visual Arts History 209 — Nineteenth Century Art Fall

This course concentrates on the 19th century with emphasis on French developments, Neoclassicism, Romanticism, Realism, Impressionism, and Post Impressionism. Prerequisite Survey II or permission of the instructor. Four credits. *Reboli*

Visual Arts History 210 — Twentieth Century Art Spring

Beginning with the development of Expressionism and Abstraction just before World War I, this course traces the development of modern ideas in painting and sculpture up to the present day. Prerequisite: Survey II or permission of the instructor. Four credits. *Reboli*

Visual Arts History 211 — History of Oriental Art

This course is designed as a complement to the College's Asian Studies Program or as a continuation of intermediate studies in the history of art. The course will be taught with a strong emphasis on the collection of Asian art of the Worcester Art Museum and will alternate its focus between Chinese or Japanese art, according to exhibition schedule. Prerequisites are some background in Asian history or culture or Survey of Art I or II. Four credits.

Visual Arts History 212 — High Renaissance Art

This course covers painting and sculpture of the 16th century in Italy, especially the developments of the High Renaissance in Florence and Rome and the evolution of Mannerism and the &maniera 1/2 & in the latter half of the century. Major figures to be studied include Leonardo da Vinci, Raphael, Michelangelo, and Titian. Prerequisite: Survey II or permission of instructor. Four credits. Baskins

Visual Arts History 240 - Modern Architecture

Exploration of the major movements and architects of European and American modernism of the 20th century. Strong emphasis on critical reading, class discussion, and preparation of research projects and/or models. Four credits. Ziegler

CRITICISM AND THEMES

Visual Arts History 230 and 231 — Architectural Studies I and II Fall and Spring

These courses examine the history of architecture from pre-history to the present. The focus is on major monuments and developments in the history of architectural styles, building technology and urban planning. Both courses question the relationship between social, political and economic history and the internal progress of architecture as a phenomenon independent of historical context. There is strong emphasis on critical reading, class discussions and preparation of one major research paper. Four credits. Ziegler

Visual Arts History 232-Sculpture Since the Renaissance

This course analyzes major sculptural concepts beginning in the Renaissance but with emphasis placed on the modern world. Prerequisite: Survey II. Four credits. Ziegler

Visual Arts History 233 — Sculpture Seminar

This course entails in-depth study of individual works of sculpture. Students also learn aspects of museology, such as the research and writing of a catalogue. Prerequisite: Permission of the instructor. Four credits. Ziegler

Visual Arts History 234 — The Painter in the Modern World Spring

The development of painting as the central medium of visual expression in the 19th and 20th centuries is investigated. The painters studied range from Goya to Picasso, and artists will be considered in terms of the development of their careers, their contribution to the art of painting, and their influence on the cultural and social ideas of Western society. Prerequisite: Permission of the instructor. Four credits. *Reboli*

Visual Arts History 235 — Sacred Spaces Fall

The evolution of sacred architecture (temples, churches, mosques, etc.). Thematic rather than historical; close attention is given to the imagery and intent of spatial design. Prerequisite: permission of the instructor. Four credits. Ziegler

Visual Arts History 260-299 — Special Topics in Art

Special topics in art history, architecture and criticism are offered regularly by all professors. The courses respond to special interests evidenced by students, outgrowths of topics addressed in an intermediate course, or research interests of the faculty. The courses are often interdisciplinary in nature and sometimes are offered without prerequisites. A gallery seminar taught by the director of the College's Cantor Gallery is offered every other semester and has involved students research of the collection and organization of exhibitions. Examples of recent Special Topics are:

Nineteenth Century Realism Fall

The course examines the various meanings that "realism" had in nineteenth-century art. Courbet and Manet are used as focal points but a wide variety of artists are studied. Traditional and new critical approaches to define realism of this period are investigated. Prerequisite: Survey of Art II and Nineteenth Century Art. *Reboli*

Seminar: The Literate Image

The course can be described as "Reading Italian Renaissance Narrative Painting." The course studies the adaptation of literary models for pictorial narratives in Italian Renaissance art. Readings include works of Ovid, Virgil, Dante, and Boccaccio, among others. No art history prerequisite, but experience in literature suggested. *Baskins*

American Art and Architecture

Students are introduced to American decorative arts (silver and furniture), painting, and architecture of the eighteenth and nineteenth centuries by a close study of objects, paintings, and buildings at Holy Cross, the Worcester Art Museum, and the Worcester area. The course emphasizes oral presentation by students. *Raguin*

Seminar: Architectural Criticism Spring

This course examines writings about architecture. Students will explore the various ways in which written texts interact with (criticizing supporting) architectural practice, building and urban planning. Writings are drawn from the nineteenth and twentieth centuries and address such topics as specific architects, urbanism, style and theories of architecture. Prerequisite: Architectural Studies I and II. Four credits. Ziegler

Criticism and Themes Seminar: Graven Images — Art and Christianity

This course is for first year students, receiving both arts and religion distribution requirements. Readings, lectures and discussions focus on: Survival of pagan ideals in Early Christian Art; The use and abuse of images; symbolism of the Old and New Testament; the cult of the saints, and other topics. *Raguin*

Exhibition Seminar

A seminar leading to an exhibition to be held in the Iris and B. Gerald Cantor Art Gallery. (Exhibition will not necessarily be held in the same year.) Students will participate in as many phases of the exhibition program as possible from selection of works to preparation of catalogue entries. Topics will vary from year to year but will ordinarily focus on some aspect of 20th century art. Prerequisite: juniors and seniors only and permission of the instructor. *Lawrence*

Advanced

Visual Arts History 301 — Concentration Seminar Fall

This course, designed for majors and concentrators, provides a critical examination of issues and methods in the literature of the history of art. Debates over the role of social and economic history in the study of art will be explored as will the more traditional approaches, such as formalism, stylistic and iconographical analysis. Prerequisite: Permission of the instructor. Ziegler

Visual Arts History 320-350 — Tutorials

Tutorials relate to all areas covered by VAH 200 courses.

VISUAL ARTS STUDIO

Students with extensive previous experience in studio art, or with specific program needs, may be allowed to move directly to intermediate level courses, pending the discretion of the instructor.

Majors in Studio Art are required to attend regular Departmental Critiques and to develop a portfolio of their own work. During the senior year, this portfolio is reviewed with attention by members of the faculty.

Introductory

Visual Arts Studio 101--2-D Fundamentals Fall and Spring

One of two basic courses, 2-D Fundamentals introduces the student to aspects of the studio program. Problems in drawing, painting, and design, slide talks, demonstrations, regular class critiques and discussions, and visits to the local museum insure the beginning student of a solid introduction to the creative process. Emphasis is on participation and sensitivity to issues, not on skill-level. This course which is taught by the studio staff is one of the prerequisites for all intermediate courses. Four credits. *Staff*

Visual Arts Studio 102 — 3-D Fundamentals Fall and Spring

An introductory course that will stress the importance of 3 dimensional art, including building, modeling, constructing as an important communication medium. The emphasis will be on the development of new ideas rather than on the completion of artwork. Students will learn to discuss art critically, not only art made by others but also their own. *Schouten*

Visual Arts Studio 130-Photography Fall and Spring

A beginning course for students with a serious interest in the creative use of black and white photography. Teaches exposure controls, camera operation, and rudimentary film developing and printing. Continuous work and advancement is achieved through creative photography assignments and criticism. Four credits. *Cataldo*

Intermediate

Visual Arts Studio 200, 201, 202 - Painting I, II, and III Fall and Spring

The primary objective of this course is to teach the fundamental techniques of oil painting as a means of expression. Students will be exposed systematically to the use of such art materials as oil paint and/or acrylic. They will explore traditional and contemporary concerns. They will derive subject matter for painting from organic and man-made objects such as still life, animal, plant life and architecture. An individualistic and imaginative approach will be highly

encouraged. Participation and effort are mandatory and hold priority over talent. Importance is placed on acquiring an ability to make choices and to determine the direction of one's work by formulating opinions and developing a critical ability to justify those opinions. Prerequisite:2-D or 3-D Fundamentals. Four credits. *McFarlane*

Painting II

Introduces the student to the more advanced concepts of color composition as a two dimensional surface. The expressive use of oil and acrylic paint will be explored. Student will also study the works of major painters dealing with traditional and contemporary concerns in terms of style and content out of which personal direction and styles will be highly encouraged. Readings from periodicals, magazines and writings on art criticism will be encouraged. Visits to museums and galleries in the Worcester and Boston area are required with the probability of one trip to New York City. Students are also required to be present at all class critiques. Prerequisite: Painting I. Four credits. *McFarlane*

Painting III Fall and Spring

Emphasizes student responsibility for the selection of subject matter, medium and style. The instructor serves as a supportive resource responsive to the individualized direction selected by the student. Prerequisite: Painting II. Four credits. *McFarlane*

Visual Arts Studio 205, 206, 207 — Drawing I, II, and III

Drawing I Fall

Experience drawing from still life, landscape, the figure, and imagination. Emphasis on charcoal, with other drawing materials explored. Personal involvement with your work and participation in group critiques is essential. Prerequisite:2-D or 3-D Fundamentals. Four credits. Schmidt, Brown

Drawing II Spring

Emphasis on understanding how to represent forms in space. Students work from still life, the head (portraits) and the figure. Projects are assigned that encourage students to move into various levels of abstraction. Charcoal, pastel and monotype are explored. In addition to classwork, students develop an individual theme during the second half of the semester leading to a final series of drawings. Personal involvement with your work and participation in group critiques is essential. Prerequisite: Drawing I. Four credits. Schmidt

Drawing III Spring

Advanced drawing, a course for those with drawing experience who wish to expand seeing and drawing skills. Emphasis will be on development of personal style rather than realistic rendering. Topics will include the exploration of use of color while working with the figure, land-scape, and other subjects of choice. Prerequisite: Drawing I and permission of instructor. Four credits. *Brown*

Visual Arts Studio 210 and 211 -Printmaking I and II

Printmaking I Fall

This course emphasizes printmaking as an expressive medium. Students are encouraged to use various techniques experimentally and in service of their personal imagery. Printmaking I concentrates on Intaglio - printing from metal plates onto paper. Intaglio processes include etching, aquatint, sugar-lift, soft-ground drypoint, and the electric engraver. Photo etching and beginning color printing will be explored. Prerequisite: Drawing I or permission. Schmidt

Printmaking II Spring

This course continues with a focus on relief printing including woodcuts, lino-cuts and color reduction prints. Students explore monotypes - single images made from paintings on plexiglass. Students also have a brief introduction to lithography — printing from the surface of lime-

stones. This course stresses developing individual ideas in printmaking and ends with an exchange of editioned prints between members of the class. Prerequisite: Printmaking I or permission. *Schmidt*

Visual Arts Studio 215 and 216 - Design I and II

Design I Fall

Involves a study of elements of visual organization first encountered in Studio Fundamentals. Color theory and composition will be studied as tools for the creation of concepts of movement, depth, and structural clarity in both two and three-dimensional designs. Prerequisite: Studio Fundamentals. Four credits. *Priest*

Design II Spring

Allows the student to develop further his or her sensitivity to the manipulation of line, color, texture, and composition in both two and three-dimensional forms. Prerequisite: Design I. Four credits. *Priest*

Visual Arts Studio 220 and 221-Sculpture I, II and III

Sculpture I explores the elements of three-dimensional expression in projects of varied media. Students are exposed to sculptural issues via slide presentations on past and present works in sculpture. Class critiques allow students to refine both concepts and expression to create a personal synthesis. Prerequisite: Studio Fundamentals. Four credits. Schouten

Sculpture II Spring

Allows the student to continue in-depth work in selected materials of sculptural expression. Prerequisite: Sculpture I. Four credits. *Schouten*

Sculpture III Spring

Allows for advanced work in a medium already studied in Sculpture II. Prerequisite: Sculpture I. Four credits. *Schouten*

Visual Arts Studio 230-250 — Special Topics in Studio

These courses study special techniques or concepts outside the present course listings.

Advanced

Visual Arts Studio 301 - Studio Concentration Seminar Spring

This course, designed for Studio majors and concentrators, is meant to pull together the skills and insights developed in individual studio courses. Students will develop an individual theme using whatever materials and techniques best serve their purposes (drawing, painting, design, mixed media, sculpture, collage, photography, prints, etc.) The course is divided between studio work, and readings on visual communication and contemporary directions in art, along with visits to exhibits of contemporary art in Boston and New York. Prerequisite: Permission of the instructor. Open to Junior and Senior Studio majors and concentrators. Staff

Visual Arts Studio 320-350-Tutorials

The Campus

Located on the southwest edge of the city on one of Worcester's seven hills — Mount Saint James — Holy Cross has a terraced, 174-acre campus whose buildings are a picturesque blend of traditional red brick and newer structures. Its grounds personnel have won some half-dozen national awards for the maintenance and appearance of the campus. Two-dozen major buildings dot the campus, including:

Libraries

At Holy Cross, libraries are considered central to the educational mission of the College. The system includes three libraries: the main library, (Dinand), the O'Callahan Science Library, and the Fenwick Music Library. The libraries presently house a combined collection of 450,000

volumes and more than 2,100 professional and scholarly journals.

Dinand Library, with a shelving capacity of 500,000 volumes, has seating for over 800 readers, and serves as the system's central information and processing facility. Two new wings to Dinand were dedicated in 1978 to the memory of Joshua and Leah Hiatt and all the victims of the Holocaust. A special Holocaust collection of books and other materials is under constant development, and now numbers over 500 volumes. Dinand's main reading room contains 10 terminals which access the on-line catalog, a public OCLC terminal and CD-ROM index searching work stations. The library is a subscriber to the new OCLC EPIC Service. It also contains major reference works, and facilities for research and reading. On the second floor of Dinand are the Reserve Book area with its large reading room, the microform area, video viewing facilities and the Inter-Library Loan Department.

The Serials Department offers multiple research indices to journals in art, humanities, social sciences, theology, philosophy and economics. More than 50 newspapers are received and The New York Times from 1851 to the present is on microfilm. A CD-ROM equipped PC work station provides computerized searching of periodical indexes and abstracts. The library is a Faxon

Micro-Linx user.

The Reference Department provides scheduled, course-specific bibliographic instruction classes as well as the customary on-demand reference service. A special emphasis is placed on the use of the on-line catalog and the CD-ROM work stations. A mandatory instructional tour is a central component of freshman orientation. Reference librarians provide computerized searching of on-line data bases such as DIALOG, RLIN and VERALEX. The Technical Services Division operates three OCLC terminals on-line for the acquisition and cataloging of books. The library operates an automated on-line library system purchased from Data Research Associates. This enables the library's entire holdings to be accessed on-line from any campus VAX terminal. This access to the OCLC data base of over 20 million bibliographic records enables the Interlibrary Loan staff to acquire needed materials from libraries throughout the United States and the world.

The library is open for operation 112 hours per week. Located throughout the library are banks of PCs and VAX terminals freely available for student use. Both Dinand and O'Callahan libraries offer on-line searching of computerized data bases, principally through DIALOG, RLIN and

VERALEX search services.

The library is a member of a group of 14 area libraries (academic, private, public) known as WACL (Worcester Area Cooperating Libraries) under the aegis of the Worcester Consortium for Higher Education. This organization publishes a Union List of Serials, sponsors library projects and studies, operates a twice-daily shuttle service for inter-library loans among the libraries, and affords its members a book reservoir of more than 3,000,000 volumes.

The Special Collections consist of incunabula (books printed prior to 1500), 15th to 17th century Jesuitana, Americana (books published in America prior to 1820), John Henry Cardinal Newman letters and first editions, the scrapbooks of James Michael Curley, and the correspondence of Louise Imagene Cuincy.

dence of Louise Imogene Guiney.

The O'Callahan Science Library, which is located in Swords Hall, contains an excellent collection of 45,000 books and journals in the disciplines of biology, chemistry, mathematics and physics. This new library, with 10,000 square feet, has seating accommodations for 120. The O'Callahan collection of science journals is considered one of the strongest in the region.

The Fenwick Music Library, which is located in the east end of Fenwick Hall, has a collection of 5, 100 sound recordings, 700 compact discs, 2,900 books and 3,700 music scores. A recently received gift of over 8,000 opera recordings provides added richness to this collection. The Music Library is equipped with turntable/amplifier units, CD players and cassette decks for both course-related and pleasure listening. The music/visual arts librarian also supervises the 40,000 art slides in the Visual Arts Department, an increasingly large portion of which are accessible via a special on-line catalog.

Students find in all of these facilities a warm and friendly environment that encourages study, reflection and intellectual growth. A highly competent, friendly and accessible library staff is available and ever willing to provide a vast array of services and assistance to students and

faculty.

Hogan Campus Center

The Henry M. Hogan Campus Center offers a wide variety of services and houses numerous facilities providing a broad social, cultural, educational and recreational program for the College community.

The Campus Center includes meeting rooms, lounges, student organization and administrative offices, the College bookstore, automated bank tellers, a cafeteria, pizza parlor, pub, private dining rooms, ballroom and party rooms, duplicating center, and record library. In addition, day-student facilities are provided to accommodate the needs of non-resident students.

There is a Campus Center Board of Directors that represents all members of the College — students, faculty, administrators and staff — and advises the director in the operation of the

Campus Center.

In its program, the Campus Center is committed to fostering educational experiences and to complementing formal instruction with meaningful leisure-time activities. Participation in and the development of mature appreciation for social, cultural, intellectual and recreational activities for the entire College community are the primary goals of the Campus Center.

Residence Halls

Five residence halls are located on the upper level of the campus, in line with the Hogan Center, and are the newest residences. Two others are located at opposite ends of a quadrangle on the lower terrace that have been renovated into suite accommodations, and the remaining two are adjacent to Dinand Library.

The Chapel

Midway up Mount Saint James and at the end of campus is St. Joseph Memorial Chapel, a pillared structure with the separate Memorial and Mary Chapels on different floors. Each has a seating capacity of 900 and is used daily for Masses and other liturgical services. The magnificent Taylor and Boody tracker organ, designed in the tradition of 16th century Dutch and north German organs, was installed in the upper (Memorial) chapel in 1985.

Fenwick and O'Kane Halls

Attached at right angles, Fenwick and O'Kane, with their soaring spires, housed the entire College in its early years. Today, they contain administrative and faculty offices, classrooms, psychology laboratories, art studios and music library. The Iris and B. Gerald Cantor Art Gallery, which displays changing exhibits, is located on the first floor of O'Kane Hall. In the Computer and Information Services department, located in the basement of Fenwick Hall, are IBM 4381 and Digital VAX 8600 computers for administrative, faculty and student use. In addition to these mainframe computers and related equipment in Fenwick, about 250 satellite terminals and personal computers are located throughout the campus.

Hart Recreation Center

Completed in 1975, this contemporary structure contains a 4,000 seat basketball arena and a separate, 1,200-seat ice hockey rink; an Olympic-size swimming pool; handball and squash courts; a crew practice tank; and locker rooms.

Loyola Hall

Located behind the chapel, Loyola opened in 1965 and provides living quarters for campus Jesuits and houses the departments of psychology and sociology, the College infirmary and a faculty lounge and dining area.

Haberlin, O'Neil and Swords Halls

This complex includes a \$10.5 million addition between O'Neil and Haberlin Halls, Swords Hall, which was completed in the winter of 1985. Among facilities are laboratories; classrooms and offices for biology, chemistry, mathematics and physics; lounges for faculty and students; the O'Callahan Science Library; and a greenhouse and facilities for aquatic research on the roof of Swords Hall.

Edith Stein Hall

Completed in January 1988, this five-story building contains 35 classrooms and two large lecture halls for the departments of economics, modern languages and literatures and religious studies, and facilities for the audio visual department and language laboratory.

Admissions

Holy Cross seeks students who are intellectually curious, appreciative of humanity's creative sense, and committed to the realization of each person's potential. Admission to Holy Cross is highly selective; therefore, the Board of Admissions gives preferential consideration to those candidates who have demonstrated their ability to perform well in a rigorous intellectual endeavor. Although there are no specific secondary school subject requirements for admission, candidates are urged to complete the most challenging college-preparatory program available in their schools. A curriculum of this nature should emphasize study in English, mathematics, foreign language (ancient or modern), laboratory sciences, and social sciences. A variation from such preparation, however, may not necessarily disqualify a candidate for admission. Evidence of superior achievement in analytical reading and writing is of particular importance to the Board of Admissions.

All candidates must submit official results of the Scholastic Aptitude Test (SAT) and three Achievement Tests directly from the appropriate office of the College Board. The English Composition Achievement Test is required of all applicants and if possible should be taken in December of the senior year. Students wishing to satisfy the foreign language requirement or simply continue the study of a foreign language at Holy Cross should take the appropriate Achievement Test. Other tests may be of the candidate's choosing, preferably in subject areas in which she or he plans to study at Holy Cross. They may be taken at any testing date that is convenient and appropriate for the candidate, but not later than January of the senior year.

Since Holy Cross seeks students who will contribute to the College both academically and personally, the Board of Admissions takes specific note of the individual talents and qualities of candidates as well as the extent of extracurricular involvement. Such information is conveyed to the Board through recommendations from counselors and teachers, through an optional (but recommended) personal interview in the Admissions Office, and through the candidate's statements on the application.

The College limits the number of students accounting major, the economics major, the psychology major and the political science major. Candidates interested in these academic areas are encouraged to indicate this preference at the time of submitting an application. Students are first evaluated for admission to the College and later for approval for specific programs.

The deadline for filing an application is February 1. Applicants will be notified of the Board's decision in early April. Application for admission to Holy Cross is encouraged of all academically qualified candidates regardless of religious affiliation, race, sex or national origin.

Holy Cross College supports the efforts of secondary school officials and governing bodies to have their schools achieve regional accredited status to provide reliable assurance of the quality of the educational preparation of its applicants for admission.

Campus Visits

Visitors are always welcome at Holy Cross and will find their time spent on campus to be most productive when the College is in session. Group information sessions are held on several Saturday mornings during the fall. These sessions include an audio-visual presentation, a discussion period and a student-guided tour of the campus.

Weekday guided tours, conducted by student volunteers, are given when classes are in ses-

sion. Tours begin at the Admissions Office several times throughout the day.

Overnight visits may be arranged for students. These visits may include a tour of the campus and the opportunity to audit classes and to meet informally with our students and faculty members. Student visitors may enjoy meals in the College's Dining Hall and reside in the dormitories. This is an excellent opportunity to experience Holy Cross as our own students do.

Interviews

Personal interviews in the Admissions Office are scheduled Monday through Friday except during February and March. We suggest that they be arranged well in advance since our interview schedule is usually filled by December 1.

Alumni interviews are available in most metropolitan areas to those students unable to interview on campus. To facilitate scheduling, please check the appropriate box on the application form and submit it no later than January 5.

To arrange any of the above, please write or call the Admissions Office (508-793-2443).

Early Decision

To superior high school seniors who have selected Holy Cross as their first choice, the College offers an Early Decision Program. The Board of Admissions assumes that all students who apply under this program will accept an offer of admission, provided it includes adequate financial aid if such is needed. Holy Cross offers two notification dates to Early Decision candidates. Students who file by November 1 will be notified of the Board of Admissions' decision by December 15. Those who file by January 15 will be notified by February 15. Early Decision candidates may file applications for regular admission to other colleges, but upon notification of acceptance to Holy Cross, these applications must be withdrawn immediately and a validating, non-refundable tuition deposit of \$200 be submitted.

The Early Decision candidate must have taken the required College Board tests by November for December consideration and by December for February consideration. A personal interview is also required of all Early Decision candidates and should be arranged well in advance. Should the Admissions Board be unable to grant acceptance, the application will be deferred and will receive full consideration at the regular time. The candidate must have an official transmitted for the conditions of the condition of the cond

script of seventh semester grades sent to the College.

Financial Aid applications for Early Decision candidates will be mailed directly by the College to those applicants who indicate they are seeking assistance.

Advanced Placement

Holy Cross participates in the Advanced Placement Program of the College Board. Each academic department establishes criteria for awarding placement and credit.

Granting College Credit

Holy Cross will grant college credit for courses taken in high school provided: (a) they are taken at an accredited college or university (i.e. on the campus); or (b) they are taught at the high school by a full-time faculty member of an accredited college or university.

Verification of either criterion must be submitted in writing to the class dean at Holy Cross

by the secondary school principal or headmaster.

A final grade of "B" or better is required and the courses must be similar in rigor and content to those normally offered at Holy Cross. Complete descriptions of each course for which the student is requesting credit must be forwarded to the class dean. Approval for credit rests with

the appropriate department chair at Holy Cross.

Students may request acceptance of any or all of the college-level courses completed while in high school. This request should be made in writing to the class dean at Holy Cross prior to November 15 of the student's freshman year. The grades for courses accepted for credit will be calculated in the Quality Point Index at Holy Cross except for semester and graduation honors.

A maximum of eight semester courses will be accepted in transfer for the incoming freshman. They will apply toward graduation if the equivalent of either one or two full semesters is accepted, i.e. four or eight courses. Courses accepted for credit that do not constitute a full semester (four courses) will apply toward graduation only if they are used to remove a deficiency. Students with fewer than four courses (the equivalent of a full semester) accepted for credit may as freshmen have the opportunity to elect upper-division courses at the discretion of the department chair.

Incoming freshmen who have been given credit for fewer than four college-level courses but who have Advanced Placement Examination credits awarded by Holy Cross in several subjects

may request early graduation on the following supportive grounds:

(a) evidence of serious consideration as to the desirability of an accelerated degree-program and the counsel and encouragement of a faculty advisor and the class dean in planning the scope and the sequence of future course work;

(b) a distinguished record of academic achievement during freshman year.

Requests for an accelerated degree-program may be submitted at any time during freshman year or at the time of entrance to the College. Because approval of such a request rests upon evidence of prior determination and a carefully planned sequence of courses, requests ordinarily will not be considered after the end of freshman year. Final approval will not be granted until sometime after the completion of freshman year. Students should submit requests through the office of the class dean. A final decision in the matter of early graduation rests with the dean of the College.

Early Admission

Through its program of Early Admission, the College will consider the application of superior high school juniors who have attained a high degree of personal maturity and social adjustment. All required entrance exams must be taken during the junior year, and a personal interview is mandatory.

Transfer Students

Each semester Holy Cross accepts a limited number of transfer students to the sophomore and junior classes. Because of the competition, candidates for transfer must present evidence of strong academic achievement at the college level. The application deadline is December 1 for the spring semester and May 1 for the fall semester. A personal interview is required of all transfer candidates. Because of departmental limitations, transfer students are not admitted as biology or accounting majors, and only a few spaces are available in the premedical/predental sequences.

Admission of Special Students

A special student is one who is not enrolled as a candidate for a degree. An application form for admission as a special student may be obtained by writing to the Office of the Registrar. The application must be completed prior to August 15 for the fall semester and prior to January 1 for the spring semester. The decision to accept an applicant as a special student will be based on the applicant's reason for seeking special student status, the evidence of a strong record in prior academic work and favorable recommendations from two professors. Applicants should understand that many courses have limited enrollments and that preference in registration is ordinarily given to degree candidates. Normally, special students are limited to two courses in a semester.

Freshman Orientation

A special program of orientation for new students is arranged by various campus offices and organizations prior to the start of classes in the fall. Information concerning the orientation program is forwarded to the students during the summer.

Further Information

Inquiries concerning admissions should be addressed to:

Admissions Office College of the Holy Cross Worcester, Mass. 01610 508-793-2443

Expenses (1990-1991)

Tuition	I.D. Card (freshmen and juniors)5
Graduation Fee70	Application Fee40
Room and Board5,400	Health InsuranceOptional Charge
Health Service Fee170	Leave of Absence Fee,
Transcript1	each semester30
Student Activities Fee125	Audit, per credit360

Acceptance Deposits

Candidates are usually notified of acceptance from January to April, and are obliged to forward a partially non-refundable reservation deposit of \$200 by May 1. The amount deposited is credited toward the first semester bill.

Room Deposits

All students who wish to reserve a room on campus during the next academic year must signify their intent and pay a non-refundable room deposit of \$100. This deposit will be credited at the rate of \$50 per semester toward room charges. Entering freshmen who have paid an acceptance deposit of \$200 do not have to pay this room deposit.

Books and Personal Expenses

A fair estimate of the average personal and incidental expenses for the school year is \$1,200. Books and supplies average about \$600 for the year.

Payment of Bills

Semester bills will be issued in July and December and are due and payable by the date indicated on each statement. Payment is to be made by check or money order, payable to the COLLEGE OF THE HOLY CROSS, and sent to the Bursar, College of the Holy Cross, P.O. Box 4069, Worcester, Mass. 01610. A student Medical Insurance Plan is available and descriptive pamphlets are mailed to each student with the premium stated therein.

At this time, the College works exclusively with several outside banks and commercial firms to handle monthly installment plans. Information regarding the particulars of each plan are sent to current, as well as prospective students on a yearly basis. Students may also obtain

pamphlet information on the plans directly from the Bursar's Office.

To avoid problems with student registration, the semester bill is due and payable as specified on the tuition statement. Whenever necessary, the College will cooperate with parents in arranging for any loan plan.

Refunds of Tuition, Board and Room

During the first five weeks of each semester, there will be a proportional refund of tuition; after five weeks there will be no refund. Rooms are contracted for and occupied on a semester basis. A percentage proportion of this fee is refundable if and only if the room is re-occupied by another eligible Holy Cross student. Board fees for students who withdraw or move off campus are also refunded on a percentage basis. Information concerning the details of this refund policy may be obtained by contacting the Bursar's Office.

Policy Change

The charges made by the College are subject to change at any time by the formal action of the College administration. Changes will be enumerated in the 1990-1991 catalog.

Financial Aid

The College of the Holy Cross has a financial aid policy that is supportive of its academic and spiritual goals as a Jesuit, undergraduate, liberal arts college. Holy Cross will meet the demonstrated need of all students accepted for admission and enrolled in the College. This need is determined using a rigorous but fair application of the needs analysis procedures agreed upon by the more than 2,000 members of the College Scholarship Service Assembly. The Financial Aid Committee expects families to provide their share of support to the student from income and assets. The financial aid program at Holy Cross is generous and therefore all students, regardless of their socio-economic background, who want to attend the College are encouraged to apply and investigate all means of financial assistance.

A financial aid statement is required of both natural parents in cases where there is a separation or divorce. The Committee understands that the actual amount of help offered at any income level will vary according to special circumstances, savings, investments, medical bills and educational costs of other children in college. Families should likewise recognize that Holy Cross' financial aid program is aimed at making it financially possible to attend the College,

not financially easy.

Financial aid packages are provided in the form of scholarships, loans and employment either singly or in combination. Assistance is based on demonstrated need, academic promise and fulfillment of the citizenship requirements for financial aid established by the federal government. A new needs analysis is conducted each school year before financial aid packages are renewed.

To apply for assistance, an incoming student need only indicate on the admissions application that he or she would like to be considered for financial aid. There is space provided for this purpose on the application form. Should an incoming student fail to indicate such a wish on the admissions application and later decide to initiate a request for financial aid, he or she must do so in writing with the Financial Aid Director. The only other requirement for application is to submit a Financial Aid Form (FAF) as soon after January 1 as possible but before February 1. The FAF should be submitted to the College Scholarship Service, Princeton, N.J., indicating that Holy Cross should receive a report. This form is available at the applicant's secondary school and is used to collect family financial information used by the College in determining the amount of assistance a student may need to attend the College for the coming year.

An aid candidate will be notified of his or her financial aid award not later than April 15. Students who enroll and who have been tendered financial assistance will be required to submit notarized copies of both parent and student federal income tax returns for the immediately preceding year before final action is taken on their award. Alternate documentation is required

in instances where a tax return is not filed by either party.

Upperclassmen and Renewal Awards

Each year Holy Cross students who receive College-administered financial assistance must file a new FAF, a Holy Cross financial aid application, and notarized copies of the federal income tax returns for the immediately preceding tax year. Forms will be mailed to each family that has received aid in the past year. They are also available in the Financial Aid Office. Students who wish to apply for financial assistance for the first time should follow this same procedure and indicate that they are first-time applicants. New awards to upperclass students are based on demonstrated need for assistance, the availability of funds and academic performance up to that point. March 15 is the preferred closing date for submission of all credentials for renewal of awards and new requests for assistance from upperclass students. It is the responsibility of the student financial aid applicant to assure that all the necessary documents are in the hands of the Financial Aid Committee in time for processing of awards. Notifications of renewal are usually mailed out by late June, and notification of award in the case of a new request is made by August 15.

Scholarships

Each year, more than 200 entering freshmen are awarded Holy Cross Scholarships with stipends ranging from \$200 to \$12,600, depending on the student's financial need. Each applicant is considered for all awards for which she or he may be eligible, including many endowed and restricted scholarships. No special application other than the FAF is necessary to be considered for these awards. In general, scholarship assistance will be renewed each year provided the student continues to demonstrate need for such assistance. Stipends, however, may be adjusted if a family's resources and financial strength change significantly. Many students will receive scholarship assistance from corporations, foundations, civic groups, parent and school associations, and service clubs, in addition to awards made from College funds. Every student who is interested in financial help should be alert for information about any outside scholarship aid for which independent applications must be submitted.

The Financial Aid Committee at Holy Cross expects students who are residents of Connecticut, Maine, Massachusetts, New Jersey, Pennsylvania, Rhode Island or Vermont to apply for the scholarship program in their home states. Application information is available either in high school guidance offices or the appropriate state agencies that are listed below. Since each state scholarship program has its own deadline for applications, it is advisable to make application

early in the academic year.

Connecticut

Connecticut Scholastic Achievement Grant Program Department of Higher Education 61 Woodland St. Hartford, CT 06105

Maine

Department of Educational and Cultural Services Higher Education Services Vickery-Hill Building State House Station 119 Augusta, ME 04333

Massachusetts

Massachusetts State Scholarship Office 330 Stuart St. Boston, MA 02116

New Jersey

Department of Higher Education Office of Student Assistance CN 540 Trenton, NJ 08625

Pennsylvania

Higher Education Assistance Agency 660 Boas St. Harrisburg, PA 17102

Rhode Island

Rhode Island Higher Education Assistance Authority Grants and Scholarships 560 Jefferson Blvd. Warwick, RI 02886

Vermont

Vermont Student Assistance Corporation P.O. Box 2000 Winooski, VT 05404

Grants

Pell Grants:

The Pell Grant Program provides grants directly from the Federal Government in amounts ranging up to \$2,300 per year, depending upon the financial circumstances of each family. This is the largest federal student assistance program, and all financial aid applicants are required to process a Pell Grant application as a requirement of applying for other assistance at Holy Cross. To apply, a student must indicate on the FAF that the family financial information on the FAF is to be released directly to the Pell Grant Program. There is no cost for this additional service. Processing time is approximately six weeks, after which a Student Aid Report (SAR) is returned to the student applicant by the Pell agency. The SAR should be forwarded to the Financial Aid Office at the College for final processing of the Pell Grant.

Supplemental Educational Opportunity Grant (SEOG):

This is a limited program for students of exceptional financial need who without the grant would be unable to continue their education. The Financial Aid Director is responsible for determining and selecting eligible students in this program as well as the amount of the award.

Loans

The Stafford Student Loan Program:

This is the primary source of educational loans and eligible students may borrow directly from lenders to finance educational expenses. Since this is a need-based program, each borrower must file an FAF in order to receive a determination of his or her eligibility. Student borrowers apply to a hometown bank or commercial lender, preferably one with which his or her family has done its banking. The maximum amount of loan under this need-based program is \$2,625 each year for the first two years of undergraduate study. The maximum loan increases to \$4,000 for subsequent years with a five-year undergraduate total of \$17,250. The interest rate is eight percent during the first four years of repayment. This increases to 10 percent beginning with the fifth year. Repayment begins six months after graduation from college, graduate school or termination of studies and may extend beyond 10 years. Typical repayments in the Stafford Program would range from \$120 - \$130 per month for 120 months on a loan of \$10,000. Deferment of repayment for up to three years for military service, Peace Corps or VISTA is permitted. Up to one year of deferment may be allowed while actively seeking but not finding full-time employment.

Perkins Loan:

Holy Cross administers a limited number of loans under the authority of this Federal program. These loans carry an interest rate of five percent simple interest. Repayment and deferment provisions are similar to the Stafford Program, which is described above. A student may borrow up to \$9,000 over four years in the Perkins Loan program. Up to 10 years may be allowed to repay a Perkins Loan, and a typical repayment obligation where a student has borrowed \$6,000 would be \$60.75 per month for 120 months.

Because of the limited amount of funds in the Perkins Loan program, priority for loans under this type of assistance will be extended to students who are determined by the College to be

most in need for this loan.

Parent Loans for Undergraduate Students (PLUS):

This is a federal program and is in operation in most states. Parents may borrow up to \$4,000 each year but not more than \$20,000 per child. The rate of interest is variable based on the 91 Day Treasury Bill plus 3.75 percent — not to exceed 12 percent. Repayment of PLUS loans must begin within 60 days and extend up to 10 years. These loans also are limited to the difference between total costs of attending the College and any other financial assistance.

Processing a PLUS loan begins with the family bank. If the lender does not participate the family should try another if it is possible to do so. Applicants who still need assistance in locating

a lender should contact the Financial Aid Office.

The Family Education Loan at Holy Cross:

Holy Cross College provides two additional ways for parents to finance their children's education. The Family Education Loan (FEL), in conjunction with the Massachusetts Education Finance Authority (MEFA), allows eligible parents to choose either: (1) a one-year loan program under which they may borrow up to 100 percent of the total education expenses for one academic year minus other financial aid, or

(2) a Tuition Prepayment Plan under which tuition for the student's remaining college years may be borrowed all at once. Under this plan the amount borrowed is based on the current year's tuition, which is guaranteed to remain the same for the student regardless of future increases.

Both options may carry with them after-tax savings, with the possibility of tax deductible

interest payments on a secured loan.

Under either plan parents can spread repayment over a 14-year period at a guaranteed interest rate, which is based on the interest rate for each bond issue. The borrower's rate for 1990-91 will be a fixed rate of 10.59 percent (APR), with monthly payments of \$11.11 per \$1,000 borrowed.

The FEL was developed by the MEFA in cooperation with a group of colleges and universities, including Holy Cross, to ease the burden of continually rising costs for tuition, room and board and other charges. The plan is funded by the sale of tax-exempt bonds and provides: (1) uniform terms, borrowing rates and standards of eligibility and credit for parents and students;

(2) a fixed interest rate, and level monthly payments, tied to the interest rate earned by pur-

chasers of the bonds; and

(3) a centralized loan service to handle approval of credit, payment collection and record-keeping.

Interested families should contact the Financial Aid Office for Instructions and applications for this program.

Employment

As part of their financial aid package, some students may be awarded a work-study authorization. The federal College Work-Study Program (CWSP) provides funds for Holy Cross to subsidize hourly wages of students who demonstrate need for assistance in meeting their educational expenses. Eligible students who are tendered employment have the opportunity to earn up to \$1,900 during the academic year. Freshmen, however, should not count on earning any substantial sum through employment on campus if their financial aid award does not contain an authorization for CWSP.

Wages are based on an hourly rate and are paid directly to the student each week. There are miscellaneous jobs in the Worcester community, and the Financial Aid Office serves as a "clearing house" for such opportunities. A file in the Financial Aid Office is maintained to provide notice of positions that become available.

ROTC Scholarships and Stipends

The Navy ROTC program offers full tuition scholarships to selected cadets and midshipmen. An advanced (junior and senior) student receives a tax-free stipend (currently \$100 per month), whether or not the student is receiving a Navy scholarship. Additional information can be

obtained by directly contacting the Naval ROTC office on campus.

Army and Air Force ROTC are offered at Worcester Polytechnic Institute and, through the Worcester Consortium, Holy Cross students may enroll in one of those programs. Additional information is available by contacting the Professor of Military Science or Professor of Aerospace Studies, Worcester Polytechnic Institute, Worcester, Mass. 01609.

Additional Information

Because the federal budget for 1992 was not completed at the time this material was prepared, the information published here with regard to federal student aid programs (Pell Grants, College Work-Study, Stafford Student Loans, Perkins Loans, Plus Loans and Supplemental Educational Opportunity Grants) could change. Please be alert for news of legislation that may affect these

Answers to questions not found here or to other specific inquiries regarding the financial aid program will be provided by the Financial Aid Director or staff members. Please address cor-

respondence to:

Financial Aid Office College of the Holy Cross Worcester, Mass. 01610 508-793-2265

Holy Cross Scholarships

General

The financial aid program at Holy Cross has been established to assist students who would otherwise not be able to attend the College due to financial restrictions. In addition to the endowed scholarships and restricted awards listed below, the College sets aside substantial funds from its annual operating income to assist worthy candidates in meeting their educational expenses.

Endowed Scholarships

Martha and Peter Adams Scholarship: Established in 1984 by a gift from George S. and Peter E. Adams, Jr. in memory of their parents, Martha and Peter Adams. Income to be awarded to a worthy and needy student.

The Governor Ames Scholarship: Established in 1887 by Governor Oliver Ames.

The Benjamin and Catherine M. Andrews Scholarship Fund: Established in September 1984 by a bequest from the estate of Catherine M. Andrews. To be used for scholarships for a worthy student or students.

Anonymous: Established in February 1966 by an anonymous donor. Income to be used for

scholarships to be awarded at the discretion of the President of the College.

Julia Maria Baker Scholarship: Established in 1944 by a bequest of Philip Hope Baker in

memory of his mother, to provide scholarships for adopted children.

John J. Barry Scholarship Fund: Established in 1963 by a gift of Margaret Barry in memory of her husband John J. Barry, '10. Preference will be given to a needy, deserving applicant with an interest in baseball.

The James E. Batchelder Scholarship: Established in March 1989 by a bequest from James E. Batchelder '62. Income for graduates of St. John's Preparatory School in Danvers, Mass.

The Eugene A. Bickford Scholarship: Established in October 1932, from the estate of Mrs. Mary A. Magenis of Brookline, Mass., in memory of her brother, the late Eugene A. Bickford, '96. The annual income to provide for the education of a deserving student under such conditions and regulations as imposed by the faculty of the college.

The Elizabeth L. Billington and Catherine Conlon Memorial Fund: Established in May 1972 by a bequest from the estate of Elizabeth L. Billington to grant scholarship assistance to deserving students attending Holy Cross College in such amounts and in such times as the Trustees in

their discretion shall deem advisable.

The James F. and Margaret A. Bresnahan Scholarship Fund: Established in November 1965 in memory of James F. and Margaret A. Bresnahan to aid worthy students from the Diocese of Springfield, Mass. Scholarship aid is to be awarded at the discretion of the President of the College from income only.

The Anne M. Brogan Scholarship: Established in 1981 by John P. Brogan, '66, in honor of his

mother.

The John E. Brooks, S.J., Scholarship: Established in 1980 by Michael W. McCarthy, a 1960 Honorary Degree recipient, in honor of Father Brooks.

The Francis K. Buckley Scholarship: Established through a gift from Francis K. Buckley, '35. The Rev. Charles E. Burke Scholarship: Established in 1895. Appointment to be made from residents of St. Francis Parish, North Adams, Mass.

The James M. Burke Scholarship: Established on April 1, 1950 from the estate of William H.

Burke. The beneficiary is to be selected by the Trustees of the College.

Captain John J. Burke Scholarship Fund: Founded and augmented by gifts in memory of Captain John J. Burke, USMC, '65. Income to be awarded to a student in the NROTC Program.

The Margaret R. Burke Scholarship: Established in 1979 by Edmund J. Burke, '24, in memory of his mother, to provide financial assistance to needy sons or daughters of widowed mothers.

The Dr. and Mrs. Harry P. Cahill Scholarship: Established in June 1963, from a Trust Fund established by Dr. Harry P. Cahill and the estate of his wife, Anne R. Cahill. Income to be used to aid students who lack sufficient financial means for their education. Selection is to be made by College authorities.

The Robert J. Cairns Memorial Fund: Established on September 24, 1953 by bequest from

the estate of Alfred F. Finneran for scholarship aid to worthy students.

The Thomas Callaghan Scholarship: Established in 1914 by the late Thomas Callaghan of Leicester, Mass., limited to residents of Worcester County, "preference to be given to those

preparing for the priesthood."

Bridget Carney Scholarship Fund: Established in 1972 by Dr. James J. Kearney in memory of his mother, Bridget Carney. The income from the fund is to provide aid to worthy and deserving students whose parents were parishioners of St. Ignatius Roman Catholic Church, Kingston, Pa.

The Honorable James Bernard Carroll Scholarship: Established in 1939 by Mrs. James Bernard Carroll as a memorial of her husband, the late Justice Bernard Carroll, of the Class of 1878. Restricted to graduates of St. Michael's Cathedral High School, Springfield, Mass. Selection to be made by the President of Holy Cross College and the Reverend Rector of St. Michael's Cathedral, Springfield, on candidate's character, scholarship and extracurricular achievements.

The Catherine McPherson Carson Scholarship Fund: Established in 1962 by Dr. Alexander F. Carson, '19, for the purpose of furnishing scholarships to qualified students selected by the

President of the College.

Challenger Memorial Scholarship: Established in 1986 by Jacob Hiatt, D.H. '73, in memory

of the crew of the space-craft Challenger.

John P. Chiota, Jr. Scholarship Fund: Established by his wife and family in memory of John P. Chiota, Jr., '31. Income to be awarded to worthy and needy students with preference given to graduates of Fairfield Preparatory School.

William L. and Hazel B. Clifford Scholarship: Established in 1966.

The Frank D. Comerford Scholarship Fund: Established by Archibald R. Graustein in 1959.

Class of 1963: Gifts of members of the Class of 1963 to the Development Fund to be used to establish a scholarship.

Class of 1964: Gifts of members of the Class of 1964 to the Development Fund to be used to

establish a scholarship.

The Connecticut Valley Alumni Scholarship: Established in 1912 by the Alumni of Connec-

ticut Valley.

The Maurice Connor Memorial Scholarship: Established in 1929 by Mr. John T. Connor in memory of his brother, Maurice. The intention of the donor is to provide for one boy; board, room, tuition and fee charges, as far as the income will provide them. The single beneficiary

is to be chosen by the pastor of St. Mary's Church, Westfield, Mass.

The Monsignor George S.L. Connor Scholarship: Established on October 18, 1955, by gift of the late Msgr. George S.L. Connor, '07. Selection to be made by the President of the College who shall give first preference to a worthy applicant who is a member of Holy Name Parish in Springfield, Mass. If no such eligible candidate applies, then such a candidate who graduates from Cathedral High School shall be considered; if none such, then any application from the Springfield high schools. Candidates must pass a scholarship test and give evidence of good character and leadership qualities.

Michael Coogan Scholarship Fund: Established in 1969 by a bequest from the estate of Adeline V. Callahan to educate a boy or boys who are residents of Millbury, Mass., and who intend

to enter the priesthood.

Thomas and Mary A. Corrigan Scholarship: Established in 1972 by a bequest of Henry J.C.

Corrigan.

The Thomas Costello and Anna Costello Scholarship: Established on December 9, 1947, by bequest of Susan A. Costello in memory of her parents and by a bequest from the estate of Fanny Goodwin Hobbs. Income to be used to aid a student who lacks sufficient financial means for his education and who has expressed the intention of entering the priesthood.

The Crowley Family Memorial Scholarship I: Established on July 2, 1947, by bequest of Miss Bridget T. Crowley of Springfield, Mass. Beneficiary to be selected by competitive examination and is open to students of the parochial and public high schools of Springfield, Mass., who are morally, mentally and physically worthy and competent and who show promise of ability, but who have such limited financial means that, if not aided by a scholarship, they would be unable to attend college.

The Crowley Family Memorial Scholarship II: Established in 1947 by bequest of Miss Bridget T. Crowley of Springfield, Mass. Conditions same as the Crowley Family Memorial Scholar-

ship I.

The Crowley Family Memorial Scholarship III: Established in 1947 by bequest of Miss Bridget T. Crowley of Springfield, Mass. Conditions same as the Crowley Family Memorial Scholar-

The Crusader Council Knights of Columbus Scholarship: Established in June, 1963, by a gift toward the establishment of a scholarship in honor of Rev. Joseph F. Busam, S.J., and in grati-

tude for his many years of service as Chaplain of the Crusader Council.

The Right Rev. Monsignor Daniel F. Curtin Scholarship: Established in 1921 by the Rt. Rev. Monsignor Daniel F. Curtin, Glens Falls, N.Y., to be appointed by the pastor of St. Mary's

Church, Glens Falls, N.Y.

Charles A. Dana Scholarship: Established in 1982 by a challenge grant from the Charles A. Dana Foundation. Income to be used for students of sound academic ability who have the potential for or have demonstrated desired qualities of character and leadership. Dana Scholars receive stipends based upon financial need ranging from an honorarium up to the amount of tuition.

Dr. and Mrs. Carl J. DePrizio Scholarship: Established on October 30, 1959. Income to be

used for an award to a deserving student in sciences.

The Daniel T. Devine Scholarship: Established in October 1945, from the estate of Mary F. Devine in memory of her brother, Rev. Daniel T. Devine. To be awarded as a result of competitive examination to the member of the graduating class of St. Mary's Parochial School, Milford, Mass., who has attended said high school for four years and who has been a member of St. Mary's Parish through his high school course.

Diocese of Worcester Scholarship: Established by the Most Rev. Bernard J. Flanagan, D.D., '28, Bishop of Worcester, the income of which is to be utilized for increased student aid.

Daniel F. Doherty Scholarship Fund: Established in 1969 by a bequest from the late Alice Dillon Doherty, in memory of her husband, Daniel F. Doherty (LL.D. '26). Income to be used for aiding needy students who are residents of Westfield, Mass.

The James F. Donnelly '99 Scholarship: Established on May 11, 1956, by a gift from the Syl-

van Oestreicher Foundation.

James P. Doran and Loretta K. Doran Fund: Established in 1985 by a bequest from the estate of Loretta K. Doran. The Fund is to be used in aiding and assisting needy students.

Michael J. & Joanna F. Daley Driscoll Scholarship Fund: Established in 1986 by a bequest

from the estate of Rev. Frederick G.M. Driscoll '19, in memory of his parents.

The Charles Leo Dubois Scholarship Fund: Established in 1980 by a bequest from the estate of Charles L. Dubois, '34, in memory of his parents, Charles Leon Dubois and Mary Ellen Dubois. The annual income is to be used to aid some worthy student or students, preferably seniors, in continuing or completing their college work.

The Rev. Stephen Duffy, S.J. Scholarship: Established in 1989 by an anonymous donor to provide full tuition scholarship annually to a senior graduating from Regis High School.

The Richard E. Duhaime Scholarship: Established in 1987 by a bequest from Richard E. Duhaime '47.

Earls Family Scholarship: Established by William T. Earls to provide scholarships for worthy young students as determined by the College.

Kevin M. Earls Scholarship Fund: Established in 1986 by friends in memory of Kevin M. Earls,

The Eastman Kodak Company Scholarship: Established on September 16, 1960.

The Theodore T. and Mary G. Ellis Scholarship Fund: Established in 1941 by the estate and through the generosity of the late Theodore T. and Mary G. Ellis. From the income of this fund, several scholarship awards of full or partial tuition are annually granted to residents of Worcester.

The Rev. Bernard A. Fiekers, S.J. Memorial Fund: Established in 1973 and augmented by gifts and bequests. Income to be used for scholarship awards to needy students majoring in chemistry.

The Rev. Patrick J. Finnegan, P.R. Scholarship: Established on November 28, 1955, by a bequest from the estate of Rev. Patrick J. Finnegan. Income to be used to assist needy boys from Portsmouth, N.H.

Charles A. Fleming Scholarship: Established in 1982 by a bequest from Charles J. Fleming, '18, for scholarships to needy students with track and field ability and with good scholastic

(Rev.) Bernard A. Fiekers, S.J., Memorial Fund: Established in 1973 and augmented by gifts and bequests. Income to be used for scholarship awards to needy students majoring in chemistry.

William Fitman Scholarship: Established in 1983 by a bequest from Anna G. Fitman in memory of William J. Fitman. Income is to be used for a student whose domicile is in the State of Massachusetts.

William and Mary Fitman Scholarship: Established in 1983 by a bequest from Anna G. Fitman in memory of William and Mary Fitman. Income for a student whose domicile is in the State of Massachusetts.

The Desiree L. Franklin Scholarship Endowment Fund: Established in April 1977 from the estate of Desiree L. Franklin to assist any young man or woman who may be in financial need. Scholarship aid is to be awarded at the discretion of the President from income only.

The Rev. John J. Foran, D.D. Memorial Scholarship: Established in 1962 by the Rev. William A. Foran to provide scholarships for graduates of Catholic secondary schools in the present diocese of Worcester and Springfield.

The Francis T. Fox Scholarship Fund: Established in 1976 by the Foundation for Educational

Services to assist students preparing for a career in public administration.

The Mary Gammal Scholarship: Established in 1981 by Mary Gammal to provide income to students who are suffering from a complete loss of hearing, or are profoundly hearing impaired. First preference to students from Worcester, then to those from Massachusetts.

General Motors College Plan Scholarship: A four-year scholarship offered semi-annually by General Motors Corporation. The amount of the award varies with the financial need of the recipient as determined by the General Motors Scholarship Committee.

The E. Burke Giblin Scholarship: Founded and augmented by gifts in memory of E. Burke Giblin, a Trustee of Holy Cross from 1973 to 1980. Mr. Giblin was chairman of the Warner-

Lambert Company.

The "In Memory of David Goggin" Scholarship: Established in 1925 by Mrs. Catherine M. Goggin, in memory of David Goggin. Preference to be given a relative.

The Monsignor Griffin Scholarship: Established in 1895, limited to residents of St. John's

Parish, Worcester, Mass.

The Thomas F. Grogan Scholarship: A memorial of the deceased father of Dr. Richard H. Grogan, '35, and his brother, Fr. Thomas Grogan, S.J.

The Dale T. Gutekunst Scholarship: Established in 1981 by Mrs. Eugenia S. Gutekunst in

memory of her son, Dale Thomas Gutekunst, of the Class of 1970.

The Mary Agnes Haberlin Foundation: For worthy students chosen by the President or

faculty of the College.

The Joseph T. Hackett Memorial Scholarship: Established by a bequest from the estate of Malachi C. Hackett. Income to be awarded to worthy and needy students with preference given to residents of Meriden, Conn.

The John H. Halloran Scholarship I: Established in 1909 by Mr. John H. Halloran of New York. as a memorial to his brother, the late William J. Halloran of Worcester, competition open to the

The John H. Halloran Scholarship II: Established in 1921 by Mr. John H. Halloran of New York as a memorial to his brother, the late William J. Halloran of Worcester, Mass. Selection to be made from students of the public and parochial schools of Northampton, Mass., by means of competitive examinations.

The Rev. Thomas Stephen Hanrahan Scholarship: Established in January 1963, by a bequest from the estate of Margaret Ellen Kearney as a memorial to the Rev. Thomas Stephen Hanra-

han. Income to be used to aid a worthy student.

Father Hart Scholarship Fund: Established by the Class of 1943 as a tribute to Rev. Francis

The Rev. Jeremiah J. Healy Scholarship I: Established in 1912 by the Rev. Jeremiah J. Healy, of Gloucester, Mass., for a candidate for the priesthood worthy of financial aid.

The Rev. Jeremiah J. Healy Scholarship II: Same as the Rev. Jeremiah J. Healy Scholarship I. The Richard Healy Scholarship: Established in 1908 by Mr. Richard Healy of Worcester, Mass., open to competition for residents of Worcester County regardless of creed.

The Mr. and Mrs. Richard Healy Scholarship: Established in 1916 by Mr. and Mrs. Richard

Healy of Worcester, Mass., for the benefit of a direct relative of donors.

The Rev. Frederick W. Heaney, S.J. Scholarship: Established in 1920 by Miss Lillian Heaney, in memory of her deceased brother, the Rev. Frederick W. Heaney, S.J.

The Frances and Jacob Hiatt Scholarship: Established for deserving students, with preference to those from Worcester County; selection to be made by the President of the College.

The Hickey Family Scholarship: Established in 1989 by a bequest from David B. Lovell, Jr., '23. Preference given to residents of the State of Rhode Island.

Francis R. Hickey Memorial Scholarship Fund: Established in 1985 by a bequest from the estate of Marion R. Hickey for students in financial need.

The John W. Hodge Scholarship: Established in 1946 by a bequest from the late John W. Hodge to aid some worthy Catholic boy from Cambridge, Mass., the terms and conditions of which are to be fixed and regulated by the College.

The Henry Hogan Scholarship: Established by gifts of Mr. Henry M. Hogan '18, Income to

be awarded to worthy students selected by the President or faculty of the College.

Larry Hogan Scholarship Fund: Established in 1981 by Coleman F. and Margaret M. Hogan in memory of their son, Larry. Preference to needy students from St. Michael's Parish, Exeter, N.H., and, then, from the Southeastern New Hampshire area.

The John T. Holland '17, Memorial Scholarship: Established on January 2, 1954, by a gift from Matthew M. Berman. To be used for worthy students selected by the President of the College.

The Holy Cross Scholarships: These are a limited number of tuition or other partial awards that are made from the College funds, at the times and to the amounts that the financial position of the College permits.

Katherine H. Hoy Scholarship: Established on December 14, 1959, by a bequest from the estate of James M. Hoy, '05. Income to be used to assist a student with preference given to a needy

and deserving boy of St. Stephen's Catholic Parish of Worcester, Mass.

C. Keefe Hurley Scholarship: Established in 1970 by C. Keefe Hurley, '29, to support and maintain an endowed athletic scholarship for students determined from time to time by the President of the College and President of the Varsity Club.

The John Collins Hurley Scholarship: Established on April 28, 1953, by a bequest from the estate of Margaret M. Hurley. Income to be used for education of a worthy graduate of Durfee

High School, Fall River, Mass.

The Warren Joseph Hurley Scholarship: Established in 1929 by Mrs. Jeremiah J. Hurley in memory of Warren Joseph Hurley, '29, for the benefit of one or more worthy students aspiring to the priesthood. Selection to be made by the President of the College.

The "In Memoriam" Scholarship: Established in 1915 by an alumnus of the College for a

deserving student.

Thomas R. and Elizabeth Johnson Scholarship: Established in 1973 by a beguest from the estate of Elizabeth E. Johnson for the education of worthy boys from Worcester, Mass., with preference given to boys within the bounds of Holy Rosary Parish.

Timothy F. Kane Scholarship Fund: Established in 1968 from the estate of Timothy F. Kane,

preference to be given to a deserving student requiring financial assistance.

The Rev. John C. Keveney Scholarship Fund: Established in 1973 by a bequest of Mary S. Weston to be used for scholarships to support and educate students deserving of an education.

The Rev. Charles L. Kimball, S.J. Scholarship: Established in June, 1961, by a bequest from the estate of Rev. Arthur B. Kimball. Income to be used to aid a worthy student selected by the

The Otto Seidenbury King Scholarship: Established in October 1954, by gifts from Atty. John King, '25. Income to be used for a deserving student from a Jesuit high school in the New York

City area selected by the President of the College.

Thomas F. and Ellen A. King Scholarship: Established in 1969 by a bequest from the estate of Leo A. King, '12. The income to be used toward the tuition of worthy students selected by the College.

The Rev. Michael H. Kittredge Scholarship: Established in 1917 by Rev. Michael H. Kittredge,

Class of 1875.

The Massachusetts State Council of Knights of Columbus Scholarship Fund: Established in 1937 by the Massachusetts State Council Knights of Columbus; open to members and sons of members of the Knights of Columbus residing and having their membership in the Order of Massachusetts. Award to be made by competitive scholastic examination under the administration of the College of the Holy Cross.

The Patrick W. Lally Memorial Scholarship: Established in March 1954 from the estate of James Lally to be awarded to a worthy graduate of St. Mary's High School, Milford, Mass., who

will be selected by the President of the College of the Holy Cross.

Eleanor Laux Memorial Fund: Established in 1974 by John C. Laux, '23, in memory of his wife. Helen M. Lavigne Memorial Scholarship: Established in 1983 by Omer D. Lavigne, '36, and his three children, in memory of his wife Helen. Income for a deserving student, male or female, based on financial need — one who could otherwise not attend Holy Cross.

The Richard J. LaVigne, M.D., Scholarship: Founded and augmented with gifts in memory of Dr. Richard J. LaVigne, '37, Joseph W. LaVigne and Dr. E. John Mango, the income from the fund will be used annually to assist a premedical student who has demonstrated need of finan-

cial aid.

The Michael J. Lawlor Scholarship: Established in February 1949 by a bequest from the late Retta M. Lawlor. Income to be used to aid a bright and needy student, resident in Waterbury, Conn., who in the opinion of College authorities, shall be deserving financial assistance.

Father Leahy Fund: Established in 1960 by a bequest from the estate of Joseph C. Bland for

the education of needy boys entering College of the Holy Cross.

W.H. Lee Milk Company Endowment Fund: Established on September 4, 1959 with the provision that the income be added to the principal until September 1, 1973. After September 1, 1973 the income to be used for scholarship aid in accordance with specifications as set down in the agreements.

The Archibald R. LeMieux Scholarship: Established under the will of Archibald R. LeMieux

for deserving students attending the College of the Holy Cross.

The John J. Leonard Scholarship of the M.C.O.F.: Founded in 1926 and restricted to members, or sons of members of the M.C.O.F.; selection is to be made by competitive examinations.

Clemens M. Linga, Jr. Scholarship: Established in 1983 by Mr. and Mrs. Clemens M. Linga, Sr. in memory of their son, Clemens, Jr., '71. Income to be awarded to worthy and needy students from Worcester County with an interest in the field of law. Selections to be made by the President of the College.

The David B. Lovell Jr. Scholarship: Established in 1989 by a bequest from David B. Lovell,

Jr., '23. Preference given to residents of the State of Rhode Island.

The James B. and Catherine W. Longley Fund: Established by James B. Longley in memory of his mother and father.

The Edward C. Maher Scholarship: Founded in 1981 by Edward C. Maher, '40 for needy students from the immediate Worcester area.

The Rev. John G. Mahoney, S.J., A Former Professor At The College, and James E. Mahoney, '10, Memorial Scholarship: Established in 1946 by Mrs. Edward C. Donnelly in memory of her brothers; to be awarded to a deserving student studying for the degree of Bachelor of Arts in the Classical Course who is to be selected by the President of the College.

Dr. Francis J. Malumphy Scholarship Fund: Established through gifts from Dr. Thomas L.

Malumphy.

Dr. E. John Mango Scholarship Fund: Established in memory of Dr. E. John Mango, '50, by

Dr. Richard J. LaVigne, '37.

The Henry and Mary Margaret Mannix and Elmer and Helen Sperry Scholarship: Established in 1982 by John F. Mannix, '52 and Helen Ward Sperry Mannix in honor of their parents. The income is to be used to aid a member of a minority group residing in the State of Connecticut.

The Marfuggi Memorial Fund: Established in 1974 in memory of Mr. and Mrs. Anthony P. Marfuggi. Scholarships to be awarded at the discretion of the College. //10The Henry Vincent McCabe Scholarship: Established in 1916 by the late Mary McCabe of Providence, R.I., for a deserving student.

The Rev. Dennis F. McCaffrey Scholarship: Established on September 29, 1953 by a bequest

from the estate of Rose A. McCaffrey.

McCahill-Harvey-Slottman Memorial Fund Scholarship: Established by Richard E. Harvey, '42, in 1967 with income only to be awarded at the discretion of the President of the College.

William F. McCall, Jr. Scholarship Fund: Established in 1986 by friends to honor William F. McCall, Jr., '55. The Fund is to be used to aid a student from the Boston area.

The Eugene and Margaret McCarthy Scholarship: Established in July, 1962 by a bequest from the estate of Margaret McCarthy. Income to be used to aid a worthy student with preference to be given to a resident of Springfield, Mass.

The Peter McCord Scholarship: Established by Mary Lambert McCord for a deserving

The Reverend John F. McDonnell Scholarship: Established in June 1967 in memory of Rev. John F. McDonnell, '00. Income to be used for the education of deserving and needy students.

Selection to be made by the President of the College.

The Rev. David F. McGrath Scholarship I: Established in 1907 by the Rev. David F. McGrath, Class of 1870, beneficiary to be selected by competitive examinations. Restricted to graduates of St. Mary's Parish School, Milford, Mass., if there be more than one eligible candidate. If but one such, graduates of Milford Public High School may be admitted to competition; if but one candidate from both schools, any one otherwise eligible in the State to be admitted to competition.

The Rev. David F. McGrath Scholarship II: Established in 1920 by the Rev. David F. McGrath, Class of 1870; conditions same as the Rev. David F. McGrath Scholarship I.

The Rev. David F. McGrath Scholarship III: Established in 1920 by the Rev. David F. McGrath,

Class of 1870; conditions same as the Rev. David F. McGrath Scholarship I.

The Frank J. McHugh and Kathleen B. McHugh Scholarship Fund: Established on June 14, 1968 by a bequest from the estate of Frank J. McHugh, Jr. '38.

The Dr. Frederick J. McKechnie Scholarship: Established in December 1962 by a bequest

from the estate of Mary I. Dunn.

The Monsignor John W. McMahon Scholarship: Established in 1938 under provisions of the will of Rt. Rev. Msgr. John W. McMahon, '67, to give scholarship aid to a Holy Cross student to be designated by the Reverend Pastor of St. Mary's Parish, Charlestown, Boston, Mass., preference being given to students coming from St. Mary's Parish.

The Katherine McQuade Scholarship: Established in June 1967 by a bequest from the estate

of Katherine McOuade.

The Charles E.F. Millard Scholarship: Established by John F. Power, Sr., '28, to honor Charles

E.F. Millard, '54. Selection to be made by the President of the College.

The Francis L. Miller Scholarship: Founded and augmented by gifts in honor of the late Francis L. Miller, Bursar of the College from 1931 to 1961. Income to be awarded to worthy and needy students with preference given to fatherless boys.

Mary F. Mourin Memorial Scholarship Fund: Established in 1975 from the estate of Mary F. Mourin to aid in the financial assistance of students who the Board of Trustees deems wor-

thy and in need of financial aid residing in Worcester or Worcester County.

The Patrick J. Murphy Scholarship: Established in 1944 by Mrs. Ellen M. Murphy as a

memorial to her husband, the late Patrick J. Murphy, of Worcester, Mass.

The Monsignor Richard Neagle Scholarship: Established in 1943 by His Excellency the Honorable Alvan T. Fuller, former Governor of the Commonwealth of Massachusetts, in memory of the late Rt. Rev. Msgr. Richard Neagle of the Class of 1873, to assist boys qualified, in the opinion of the faculty, who otherwise could not afford such an expenditure as would be necessary to enjoy the education and religious advantages of the College of the Holy Cross.

John F. O'Keefe Memorial Scholarship: Founded in 1984 and augmented with gifts in memory of John F. O'Keefe, '51, Vice President for Business Affairs and Treasurer of the College from 1970 to 1984. Income to be awarded to an incoming freshman, preferably a Worcester-

area student.

The Dennis F. and Lorretto Radle O'Connor Scholarship: Established on May 26, 1955 by Dr. Dennis F. O'Connor, '93, to be used for a worthy student to be selected by College authorities.

Rev. Leo J. O'Connor, S.J., Scholarship: Established by friends of Father O'Connor to provide scholarships for students selected by the Trustees of the College of the Holy Cross.

The O'Driscoll Scholarship: Established in 1874, for a student (limited to residents of Worcester), who is a candidate for the priesthood and is selected by the Bishop of Worcester or his delegate.

The May and Sylvan Oestreicher Scholarship: Established on December 30, 1957 by a gift

from Sylvan Oestreicher.

The Mary C. O'Neil Fund for Bristol County Students: Established on January 7, 1955 by gifts from Margaret T. O'Neil, to be used to aid a student from Bristol County.

The Rev. Daniel H. O'Neill Scholarship I: Established in 1895, limited to residents of St.

Peter's Parish, Worcester, Mass.

The Rev. Daniel H. O'Neill Scholarship II: Established in 1908; limited to residents of Worcester.

Penhall-O'Rourke Scholarship: Established on September 9, 1958 by a bequest from the estate of Dr. James J. O'Rourke, '09, to be used for scholarships in aiding a deserving student.

Reverend Lawrence F. O'Toole Scholarship: Established in May 1966 in memory of Rev. Lawrence F. O'Toole, '13, by his sister, Mrs. Florence Drury. Preference to priesthood aspirants with preference, first, to a member of St. Bernard's Parish, Worcester, Mass., and second, to anyone in the Diocese of Worcester.

The Lawrence F. O'Toole Scholarship: Established by a bequest from Lawrence F. O'Toole

'10. Income to be awarded to worthy students selected by the Dean of the College.

The Joseph A. & Dorothea H. Perrotta Memorial Scholarship: Established in 1986 by a bequest from the estate of Dorothea H. Perrotta, widow of Joseph A. Perrotta, '28, Secretary to the President of the College from 1933 to 1972.

Reverend Michael G. Pierce, S.J. Scholarship Fund: Established by gifts from Robert H.

McCooey, '52.

The Reverend Michael G. Pierce, S.J. Scholarship: Established in 1983 by a bequest from George F. Duffy. Preference for a young man from the St. Mary of the Hills Parish, Milton, Massachusetts. Selection by the President of the College on the basis of scholarship, character and need.

The Rev. Dr. Patrick B. Phelan Scholarship: Established in 1917 by Rev. Dr. Patrick B. Phelan, Class of 1869; open to competition for graduates of the Sacred Heart School, Holyoke, Mass.

The David H. Posner and Mary Murphy Posner Foundation: Established on July 1, 1957 by a bequest from the estate of Mary M. Posner. Income to be used toward tuition of worthy students.

The Mr. and Mrs. Aloysius F. Power Scholarship: Established by a gift from Mr. Aloysius F. Power, '23. Income to be awarded to whom the College authorities judge to be in need of financial assistance and worthy of aid.

The Rev. John J. Power Scholarship: Established in 1907 by the late Rev. John J. Power, D.D.,

limited to residents of St. Paul's Parish, Worcester, Mass.

The Mary A. Prendergast Scholarship: Established in 1945 under the will of the late Mary A. Prendergast for deserving orphan students.

Stephen John Prior Scholarship Fund: Established in 1971 by the family in memory of their son Stephen. Scholarships are to be awarded at the discretion of the College from income only.

The Purple Patcher Scholarship: Established in June 1963 by the staff of the yearbook, "The Purple Patcher," Class of 1963 and augmented by the staffs of the Classes of 1964, 1965, 1966

The "Quid Retribuam" Scholarship: Established in 1907 by a friend of education in gratitude for divine favors; if not filled by founder, competitive examinations will be held.

The Lillian A. Quinn Scholarship Fund: Established in 1968 by a bequest from the late Lillian A. Quinn. Income to be used to provide scholarship aid for worthy and needy students to be selected by the President of the College, preference being given to students from Immaculate Conception Parish, Worcester, Mass.

The Patrick W. Rafferty Scholarship: Established in 1920 and open to competition among

deserving students of Worcester.

In Memory of Dennis M. and Josephine R. Reardon Scholarship: Established on January 11, 1952 by a bequest from the estate of Josephine F. Reardon. Income to be used to aid a worthy student preparing for the holy priesthood.

Matthew W. Reedy Scholarship: Established in 1983 by a bequest from Anna G. Fitman in memory of Matthew W. Reedy. Income for a student whose domicile is in the State of

Massachusetts.

Reverend Maurice F. Reidy, S.J. Scholarship: Established in 1984 by a gift from Mr. and Mrs. George Paletta, parents of George A. Paletta, Jr., '84, in memory of the Reverend Maurice F. Reidy, S.J. Income to be awarded to a needy student who participates in a minor sport, preferably lacrosse, and who has achieved a strong scholastic record. Selection to be made by the President of the College of the Holy Cross.

The John Reid Scholarship: Established in 1894, limited to residents of Worcester, Mass.

The Catherine F. Reilly Scholarship: Established on June 1, 1955 by a bequest from the estate of Joseph J. Reilly, '04, in memory of his mother. Income to be used for a worthy student to be selected by College authorities.

The James H. Reilly Scholarship: Established on June 1, 1955 from the estate of Joseph J. Reilly, '04, in memory of his father. Income to be used for a worthy student to be selected by College authorities.

The Reilly Memorial Scholarship: Established in 1922 by the late Joseph J. Reilly, '04.

The Mary J. Robinson Scholarship: Established in 1943 by the late Mary J. Robinson in memory of her mother and father and brothers to assist deserving young men of the Roman Catholic faith in obtaining a collegiate education at the College of the Holy Cross.

The Rev. William H. Rogers Scholarship: Established in 1918 by Rev. William H. Rogers, Class of 1868.

Patrick and Mary McCauley Ronayne Scholarship: Established in 1973 by a bequest from the estate of Elizabeth E. Johnson for the education of worthy boys from Worcester, such boys

to be selected by the Trustees of the College.

The Dorothy H. and Lewis Rosenstiel Scholarships: Established on November 26, 1968 through a grant from The Dorothy H. and Lewis Rosenstiel Foundation, in memory of Dorothy H. Rosenstiel, to be awarded with preference to members of disadvantaged minorities, primarily Jewish, Black and Puerto Rican.

The Hon. John E. Russell Scholarship: Established in 1907 by a Friend of the College. //10The Mr. and Mrs. John A. Ryan Family Scholarship Fund: Established in 1967 by Miss Mabel C. Ryan.

The Rev. Michael J. Ryan Scholarship: Established in 1990 by a bequest from Rev. Michael J. Ryan. Income to be used for a student from St. Paul's Parish, Warren, Mass.; if none, any student.

Clarence G. Schilling Scholarship: Established in 1982 by a bequest from Clarence G. Schilling, a member of the Department of Mathematics faculty from 1945 to 1951. Income to be used for partial scholarships for students of character, ability and ambition.

The Scholler Foundation Scholarship: Established on October 24, 1955.

The John F. Scott Fund: Established by gifts from John F. Scott, '08. Income to be used to aid worthy students from the State of Maine.

The Monsignor Seiter Scholarship: Established by a bequest in 1981 from the estate of Monsignor Aubrey R. Seiter, '23. Income to be used for a worthy student from St. Michael's Parish, Rome N.Y.

The James J. Shea, Sr., and Barbara Shea Brennan Scholarship Fund: Established in 1979 by a gift from Edward J. Brennan, Jr., '52, to honor James J. Shea, Sr., a recipient of an Honorary Degree from Holy Cross in 1968. Mr. Shea was Board Chairman of Milton Bradley Company of Springfield, Mass. Augmented by a gift in 1985 in memory of Barbara Shea Brennan.

Timothy A. Shea Scholarship Fund: Established by bequests from the estate of Timothy A. Shea in memory of his parents, Mr. and Mrs. Daniel M. Shea; a brother, Michael F. Shea; and sisters, Katherine and Elizabeth. Income to be used exclusively for non-resident students residing in Worcester and awarded on a competitive basis.

Audrey Sheldon Memorial Fund for Music and the Arts: Established in 1982 by the Merlin

Foundation. Income is designated for the Dana Scholars Program.

Lt. Timothy J. Shorten Scholarship Fund: Established by his wife Darlene in memory of 1st Lieutenant Timothy J. Shorten, U.S.M.C.R., '64. Income to be awarded to worthy and needy students designated by the College.

The Dr. John J. Slattery Scholarship Fund: Established in 1985 by a bequest from the estate of Dr. John J. Slattery, '24, for the purpose of aiding needy and worthy students who are desirous

of obtaining a pre-medical education.

The Elizabeth Spang Scholarship: Established in 1936 by the will of Elizabeth Spang of West Haven, Conn. This income to be used toward the education of a "student of Holy Cross College whom the governing body of said College may deem to be in need of financial assistance for his college work and worthy of said scholarship."

The Garrett H. Spillane, III Scholarship: Established in 1986 by Garrett H. Spillane and

Frances C. Spillane in memory of their son, Garrett H. Spillane, III, '80.

The Francis J. Steele, M.D., Scholarship: Established in 1981 by a bequest of Helen E. Steele

in memory of her husband, Dr. Francis J. Steele, '28.

The Monsignor John E. Sullivan Scholarship Fund: Established in 1984 by a bequest from Msgr. John E. Sullivan, '26. First preference to students from St. Camillus' Parish, Arlington, Massachusetts.

Frances Hannon Sweeney Memorial Scholarship Fund: Established in 1986 by a bequest from the estate of Robert L. Sweeney, 29.

Michael H. Sweeney Memorial Scholarship Fund: Established in 1986 by a bequest from the estate of Robert L. Sweeney, 29.

Robert L. Sweeney Memorial Scholarship Fund: Established in 1986 by a bequest from the estate of Robert L. Sweeney, 29.

Rev. Raymond J. Swords, S.J., Scholarship: Established by the Class of 1970 with income only awarded at the discretion of the College.

Ernest P. Tassinari Scholarship: Established by a gift from Ernest P. Tassinari, '48. Income to

be awarded to worthy and needy students designated by the College.

In Memory of Helen M. and John F. Tinsley Scholarship: Established on November 20, 1953 by a bequest from the estate of John F. Tinsley. Income to be used to assist worthy students selected by the President of the College.

The R.J. Toomey Co. Scholarship: Established by gifts from John A. Toomey, '28, Lawrence

T. Toomey, '30, and Richard J. Toomey, '23.

The Frank W. and Violet Towey Scholarship Fund: Established by a bequest from the estate of Frank W. Towey, '16. The income to be used for financial aid to students in accordance with standards determined by the Trustees of the College.

The Rev. David W. Twomey, S.J., Scholarship: Established on October 10, 1955 by gifts from

family and friends of Fr. Twomey, S.J. Income to be used to aid a worthy student.

The Clune J. Walsh, Jr. Scholarship: Founded by The Home Life Insurance Company and augmented by gifts to honor Clune J. Walsh, Jr., '52. Priority consideration to be given to students pursuing a career in life insurance sales and marketing.

The Honorable David I. Walsh Scholarship Fund: Established by a gift from George J. Feldman with scholarships to be awarded to students whom the donor and College authorities judge

to be in need of financial assistance.

The Rev. Robert Walsh Scholarship: Established in 1895, limited to residents of the Immaculate Conception Parish, Worcester, Mass.

The Stephen W. Wilby Scholarship: Founded by the Naugatuck Valley Alumni Association and friends in Connecticut.

The John A. Willo Scholarship: Established by a gift from Mrs. John A. Willo in memory of her late husband. Income to be awarded to worthy and needy students selected by the President of the College.

Owen J. Wood Scholarship Fund: Established in May 1967 in memory of Owen J. Wood, '66, by The Worcester Undergraduate Club. The income is to be used to provide financial aid to a Worcester area student, with preference given to orphans.

Worcester Federal Savings and Loan Association Educational Fund: Established on April

1, 1960.

Financial Aid Acknowledgements

Many Holy Cross alumni clubs sponsor students of their selection for complete or partial tuition scholarships. Among those who have participated in this program are: Eastern Connecticut Holy Cross Club, Holy Cross Alumni Club of Worcester, Holy Cross Club of Boston, Holy Cross Club of Maine, Holy Cross Club of Long Island, Holy Cross Club of New York, Holy Cross Club of Rhode Island, Holy Cross Club of Merrimack Valley, Holy Cross Club of New Hampshire, Holy Cross Club of Rochester and Holy Cross Club of Pioneer Valley. Many of these clubs are annual contributors; others contribute at various times.

Grateful acknowledgement is also due to the many corporations, foundations, fraternal organizations, P.T.A.'s, high school associations and similar groups that have aided students

of their selection by financial contributions toward tuition costs.

The Office of the College Chaplain

As a Catholic and Jesuit college, Holy Cross is committed to scholarship, academic excellence and the deepening of the human and religious lives of everyone in the College. To be true to its heritage, Holy Cross must allow and encourage all its members to recognize their own values, mature as individuals within a community, and grow in relationship both with other men and women and with God. As a vital part of the living tradition of this College, the Office of the The Chaplains are concerned with individuals: while always concerned that the Catholic members of Holy Cross may experience a deeper commitment to Christ and to the community that is Church, the Chaplain's Office seeks also to maintain close contact with the non-Catholic members of the College, with due respect for their tradition and their freedom of conscience. Members of the Holy Cross community who adhere to faiths other than the Catholic faith should feel most welcome to attend any campus liturgical service or program provided by the Chaplain's Office to which they are inclined. Opportunities can be created for students to meet local ministers of their faith.

At Holy Cross, the Chaplain's Office is not a marginalized part of the institution; it is at its center. The Chaplains are not "answer men and women." They rely on the creative efforts and energies of other members of the community to make the religious presence at Holy Cross a living and growing reality.

The Committee on Social Concern

The Committee on Social Concern originated in 1984 as part of the College's commitment to educate men and women to the service of faith and the promotion of justice. Since the mid-1970s, to the traditional hallmarks of Jesuit education — a striving for academic excellence, concern for the whole person, moral and spiritual development of character — a new dimension has been added: a commitment to justice. The Committee on Social Concern is one part of the College's effort to educate for justice; the Committee seeks to develop programs and policies in all spheres of campus life to combat racism, sexism and classism. Through its endeavors, the Committee hopes to coordinate and strengthen the College's education of "men and women for others." The members of the Committee on Social Concern are appointed by the President of the College.

Student Services

Dean of Students

The dean of students coordinates student life in non-academic areas, including health services, counseling and career planning, student activities, residence life and student conduct. It is the constant purpose of the College to encourage the growth of personal and corporate responsibility consistent with the mature liberty of the educated person. Serious breaches of the code that demands respect for order, morality, personal honor and the rights of others will necessitate withdrawal from the College. The College reserves the right to dismiss a student at any time without any definite public charge.

Health Services

The College Health Service has been organized to meet the immediate needs of all students, the Jesuit community, and the staff and faculty when injured on duty, and to provide both follow-up treatment and educational services during the academic year.

The Health Service staff consists of board certified family practice physicians affiliated with the Medical Center of Central Massachusetts - Hahnemann. We provide gynecological services, medical/surgical services, and sports medicine/orthopedic services on site. The physicians consist of two female and two male physicians on site Monday through Friday, 20 hours per week. In addition, there are full and part-time registered nurses staffing Health Services on a 24-hour basis during the academic year.

Please review the Health Services brochure to fully understand the health care facility on

campus.

Counseling Center and Career Planning Office

Students in college sometimes encounter personal problems that make their lives more difficult than they need to be. These problems can affect a student's ability to achieve personal, career and academic goals. The psychologists and professional staff at the Counseling Center and Career Planning Office provide a variety of services to assist students in resolving problems, learning about themselves and others, and promoting personal and intellectual growth and development. Among the services offered are:

• Individual counseling directed toward the resolution of personal problems

• Educational and career counseling and testing to promote the identification and implementation of appropriate academic and career goals

• Developmental groups designed to address common student concerns such as assertiveness, personal growth, relationships, family problems, and eating disorders

• Lectures and open discussions on topics related to human development that are of interest to students

• The College Venture Program, which offers opportunities for worthwhile work experiences for students who elect to take a leave of absence from the College

 Career resources incorporating occupational information, graduate school catalogs, listings of internship and employment opportunities, and directories of alumni willing to assist students with career planning

• Workshops and programs preparing students to identify appropriate employment and graduate school opportunities, to write resumes and related correspondence, and to interview successfully

• Credential files for documents required for graduate school admission or employment

• On-campus interview opportunities for students to meet potential employers and representatives from graduate and professional schools.

The counseling services offered at the Center are open to all current full-time students and are confidential. Students interested in making an appointment may call the Center (793-3363) or come in (Hogan 207) from 9 a.m. to 5 p.m.

Residence Life

Much of the campus life at Holy Cross is centered around the residence hall in which a student lives. While the 10 residence halls vary in size, tradition and facilities, all are coeducational by floor and integrated by class. A budget is allotted to each house, allowing the elected house council members to arrange social and cultural activities for the residents.

The whole area of residence life is under the supervision of the Dean of Students' staff. The halls are administered by live-in staff members and resident assistants who are upperclassmen selected for their maturity, responsibility and leadership qualities. Each resident is expected to regard the rights of others, respect the physical surroundings and uphold the values of the College. An atmosphere of friendly cooperation and mutual consideration assures that the hall will be an enjoyable place to live and a quiet place to study and relax.

In addition to the resident assistants, the houses have faculty associates who attempt to enhance student-faculty relationships on an informal level by becoming involved in house

activities.

Many students find their experiences in residence hall living to be among the most memorable of their college days. Activities such as informal get-togethers with faculty members, house parties and cookouts, intramural basketball and softball games between corridors, as well as other more spontaneous activities have been successful and enjoyable ways to bring people together in a learning and growing experience through residence life.

Student Activities

Student Government Association (SGA)

The Student Government Association serves as the primary student voice on campus, dispenses student activities fees, and coordinates various student activities and committees.

The SGA has more than 75 members in the following categories: officers of SGA, student members of the Faculty Meeting, student representatives of two faculty committees (not members of the Faculty Meeting), student representatives to six college committees (not members of the Faculty Meeting), and optional representation from each active college organization.

The SGA has the power to grant recognition to student organizations on behalf of the student body, to establish procedures for the creation of a Student Judicial Board and to establish committees and commissions which may be necessary to investigate, assess and recommend action on particular areas of concern to the student government. In addition, the SGA determines, with the consent of the college, the student activities fee and through the Student Activities Fees Committee (SAFC) allocates funds among the student organizations with the approval of the Director of Student Activities.

Clubs and Organizations

The more than 70 student groups fall into four major categories — co-curricular, extra-curricular, performing arts and communications media. Among co-curricular groups are societies devoted to sciences, foreign languages, management, law and literature, while extra-curricular organizations include Students for Life, the Women's Forum, B.J.F. Debating Society, Black Student Union, and clubs for such interests as racquetball, photography and environmental concerns. Performing arts groups include the Fenwick Theatre Company, Alternate College Theatre, Senior Class Show, College Choir, St. James Chamber Orchestra, Jazz Ensemble, Marching Band, and Modern Dance Club. Among the major instruments of campus communication are Agora, an opinion journal; The Crusader, the weekly student newspaper; The Purple, a literary magazine; The Purple Patcher, the yearbook; The Cross Product, a science magazine; the Women's Forum Journal; and WCHC-FM radio station. The Holy Cross Daily News, a one-sheet, daily publication that lists events and campus news, is written and edited by students.

Campus Events

Many departments and organizations bring to campus a wide variety of events, ranging from films and lectures to performing groups and art exhibits. Two principal organizations that sponsor cultural and entertainment activities are the Campus Center Board of Directors (CCB of D) and the Cross and Scroll Society. The CCB of D provides activities in the Hogan Campus Center, including entertainment programs in the pub and pizza parlor, dances, concerts and recreational events. Cross and Scroll promotes the cultural interests of the College, arranging for the appearances on campus of nationally known speakers.

Athletics and Recreation

Men and women interested in athletics find much to choose from at Holy Cross, from pick-up softball games to intramural volleyball to various intercollegiate men's and women's sports played at the Division I or II, NCAA level.

The College sponsors about 30 intercollegiate teams and clubs. Intercollegiate sports for men are football, baseball, basketball, soccer, cross-country, outdoor and indoor track, golf, hockey, swimming, rugby, fencing, tennis, lacrosse, and crew. The women Crusaders compete in field hockey, basketball, swimming, fencing, lacrosse, rugby, softball, soccer, crew, volleyball, tennis, indoor and outdoor track and cross country. And, the men and women crew together at intercollegiate regattas as members of the Holy Cross Sailing Club.

Most varsity sports compete in the Metro Atlantic Athletic Conference, while the Division I-AA football team is a member of the recently formed Colonial League, comprised of Bucknell, Colgate, Davidson, Lafayette, and Lehigh, as well as Holy Cross. The squad also plays several games each year against Ivy League opponents. Besides intercollegiate teams and clubs,

the College provides an active intramural program.

Athletic facilities at Holy Cross include Fitton Field, with a baseball diamond and recently renovated football stadium; more than a dozen tennis courts; intramural and practice fields, including a lighted Omniturf field and surrounding eight-lane running track; a fieldhouse with basketball courts, a running track, gymnastic equipment, and weight-lifting and Nautilus facilities; and the Hart Center, which includes basketball courts; ice rink; swimming pool; squash, handball and racquetball courts; locker and shower facilities; and a crew practice tank. The Hart Center serves as the home of the Holy Cross basketball and hockey teams as well.

Directories

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Maurice A. Geracht (June '91), William R.
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Mary Ann Hinsdale, I.H.M., (June '92, on lv.
Fall '90), Robert D. Allard, '91, Kathryn M.
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