
Swarthmore

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Directions for Correspondence

SWARTHMORE COLLEGE, 500 COLLEGE AVENUE, SWARTHMORE, PA 19081-1397

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This *Bulletin* contains policies and program descriptions as of July 31, 1998, the date of publication, and should be used solely as an informational guide. The College reserves the right to alter or amend at any time the policies or programs contained in the *Bulletin*. Students are responsible for informing themselves of current policies and meeting all relevant requirements.

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College Calendar

1998

August 29	New student orientation begins
September 2	Registration
September 3	Classes and Seminars begin
September 25-26	Meeting of the Board of Managers
October 9	October holiday begins, end of last class or seminar
October 19	October holiday ends, 8:30 a.m.
November 16-24	Advising period
November 25-December 1	Pre-enrollment for spring semester
November 25	Thanksgiving vacation begins, end of last class or seminar
November 30	Thanksgiving vacation ends, 8:30 a.m.
December 4-5	Meeting of the Board of Managers
December 10-11	Advising follow-up days
December 11	Classes end
December 12	Enrollment for spring semester
December 14	Final examinations begin
December 18	Seminars end
December 22	Final examinations end

Fall Semester

1999

January 18	Classes and Seminars begin
February 26-27	Meeting of the Board of Managers
March 5	Spring vacation begins, end of last class or seminar
March 15	Spring vacation ends, 8:30 a.m.
March 19-21	Black Alumni Weekend
April 5-15	Advising period
April 16-18	Parents Weekend
April 16-20	Pre-enrollment for fall semester
April 29-30	Advising follow-up days
April 30	Classes and Seminars end
April 30–May 1	Meeting of the Board of Managers
May 3	Enrollment for fall semester
May 6	Written Honors examinations begin
May 6	Final examinations begin
May 15	Final examinations end
<i>The following dates are tentative based on previous assumptions. Calendar is up for review.</i>	
May 17	Written Honors examinations end
May 17-18	Senior comprehensive examinations
May 20-22	Oral Honors examinations
May 30	Baccalaureate
May 31	Commencement
June 4-6	Alumni Weekend

Spring Semester

1999

Fall Semester

Tentative based on previous assumptions.

Calendar is up for review.

August 28	New student orientation begins
September 1	Registration
September 2	Classes and Seminars begin
September 24-25	Meeting of the Board of Managers
October 8	October holiday begins, end of last class or seminar
October 18	October holiday ends, 8:30 a.m.
November 15-23	Advising period
November 24-30	Pre-Enrollment for spring semester
November 24	Thanksgiving vacation begins, end of last class or seminar
November 29	Thanksgiving vacation ends, 8:30 a.m.
December 3-4	Meeting of the Board of Managers
December 9-10	Advising follow-up days
December 10	Classes end
December 11	Enrollment for spring semester
December 13	Final examinations begin
December 17	Seminars end
December 21	Final examinations end

2000

Spring Semester

Tentative based on previous assumptions.

Calendar is up for review.

January 17	Classes and Seminars begin
February 25-26	Meeting of the Board of Managers
March 3	Spring vacation begins, end of last class or seminar
March 13	Spring vacation ends, 8:30 a.m.
April 3-13	Advising period
April 14-18	Pre-Enrollment period for fall semester
April 27-28	Advising follow-up days
April 28	Classes and Seminars end
May 1	Enrollment meeting for fall semester
May 4	Written Honors examinations begin
May 4	Course examinations begin
May 5-6	Meeting of the Board of Managers
May 13	Course examinations end
May 15	Written Honors examinations end
May 15-16	Senior comprehensive examinations
May 18-20	Oral Honors examinations
May 28	Baccalaureate
May 29	Commencement
June 2-4	Alumni Weekend

Introduction to
Swarthmore College

Educational Resources

Introduction to Swarthmore College

Swarthmore College, founded in 1864 by members of the Religious Society of Friends as a coeducational institution, occupies a campus of more than 300 acres of rolling wooded land in and adjacent to the borough of Swarthmore in Delaware County, Pennsylvania. It is a small college by deliberate policy. Its present enrollment is about 1,300 men and women students. The borough of Swarthmore is a residential suburb within half an hour's commuting distance of Philadelphia. College students are able to enjoy both the advantages of nearby rural settings and the opportunities offered by Philadelphia. The College's location also makes possible cooperation with three nearby institutions, Bryn Mawr and Haverford Colleges and the University of Pennsylvania.

OBJECTIVES AND PURPOSES

Swarthmore students are expected to prepare themselves for full, balanced lives as individuals and as responsible citizens through exacting intellectual study supplemented by a varied program of sports and other extra-curricular activities.

The purpose of Swarthmore College is to make its students more valuable human beings and more useful members of society. While it shares this purpose with other educational institutions, each school, college, and university seeks to realize that purpose in its own way.

Swarthmore seeks to help its students realize their fullest intellectual and personal potential combined with a deep sense of ethical and social concern.

VARIETIES OF EDUCATIONAL EXPERIENCE

Education is largely an individual matter, for no two students are exactly alike. The Swarthmore College curriculum is designed to give recognition to this fact, and seeks to evoke the maximum effort and development from each student. The Swarthmore College Honors Program offers additional enriching and exciting intellectual experiences to students who choose to prepare for evaluation by examiners from other colleges and universities. Throughout the curriculum, options for inde-

pendent study and interdisciplinary work offer opportunities for exploration and development over a wide range of individual goals. These opportunities typically include considerable flexibility of program choices from semester to semester, so that academic planning may be responsive to the emerging needs of students.

THE RELIGIOUS TRADITION

Swarthmore College was founded by members of the Religious Society of Friends (the Quakers). Although it has been nonsectarian in control since 1908, and although Friends now compose a minority of the student body, the faculty, and the administration, the College still values highly many of the principles of that Society.

Foremost among these principles is the individual's responsibility for seeking and applying truth, and for testing whatever truth one believes one has found. As a way of life, Quakerism emphasizes hard work, simple living, and generous giving; personal integrity, social justice, and the peaceful settlement of disputes. The College does not seek to impose on its students this Quaker view of life, or any other specific set of convictions about the nature of things and the duties of human beings. It does, however, encourage ethical and religious concern about such matters, and continuing examination of any view which may be held regarding them.

TRADITION AND CHANGE

A college draws strength from tradition, and energy from the necessity of change. Its purposes and policies must respond to new conditions and new demands. By being open to change, Swarthmore tries to provide for its students, by means appropriate to the times, the standard of excellence it has sought to maintain from its founding.

Educational Resources

The primary educational resources of any college are the quality of its faculty and the spirit of the institution. Financial as well as physical resources play an important supportive role.

THE ENDOWMENT

The educational resources at Swarthmore College have been provided by gifts and bequests from many alumni, foundations, corporations, parents and friends. In addition to unrestricted gifts for the operating budget, these donors have contributed funds for buildings, equipment, collections of art and literature, and permanently endowed professorships, scholarships, awards, book funds and lecture-ships. Their gifts to Swarthmore have not only provided the physical plant, but also have created an endowment fund of approximately \$854,000,000 at market value on March 31, 1998. Swarthmore ranks among the top ten in the country in endowment per student. Income from the endowment during the academic year 1996-97 contributed approximately \$19,300 to meet the total expense of educating each student and provide over 33% of the College's operating revenues.

The College's ability to continue to offer a high quality of education depends on continuing voluntary support. Swarthmore seeks additional gifts and bequests for its current operations, its permanent endowment, and its capital development programs to maintain and strengthen its resources. The Vice President in charge of development will be pleased to provide information about various forms of gifts: bequests, outright gifts of cash or securities, real estate or other property, and deferred gifts through charitable remainder trusts and life income contracts in which the donor reserves the right to the annual income during his or her lifetime.

LIBRARIES

The College Library is an active participant in the instructional and research program of the College. The primary mission of the Library is to instruct students in effective, efficient use of the library and to encourage them to develop

habits of self-education so that they may use books, libraries, and recorded communication in all forms for a lifetime of intellectual development. To this end the Library acquires and organizes books, journals, audiovisuals, and electronic information in a variety of digital and other formats for the use of students and faculty. While the Library's collections are geared primarily towards undergraduate instruction, the scope, nature, and depth of student and faculty research require providing a greater quantity of source materials than is typically found in undergraduate libraries. Further needs are met through interlibrary loan, document delivery and other cooperative arrangements.

The Swarthmore College Libraries together with those of Bryn Mawr and Haverford colleges are linked in a fully automated consortial library system, Tripod, with an online public access catalog and reciprocal borrowing. Tripod as well as other networked information sources can be accessed through the Library's Home Page on the World Wide Web. The URL is: <http://www.swarthmore.edu/Library/>. Electronic bibliographic indexes and full-text databases have become increasingly important to undergraduate research. Swarthmore College and the consortium provide a growing selection of electronic research databases which are available in the Libraries and, in many cases, networked to dormitory rooms and other campus settings.

The *Thomas B. and Jeanette L. McCabe Library* is the center of the College Library system housing the major portion of the College Library collections, reading and seminar rooms, an electronic resources room, a video classroom, and administrative offices. Total Library holdings amount to 740,000 volumes with some 20,000 volumes added annually. About 2,000 periodical titles are received regularly. The College participates in the Federal Depository Library Program by selecting publications most appropriate to the needs of the curriculum and the public, and by making them easy to find through the Tripod system.

The *Cornell Library of Science and Engineering* houses more than 52,300 volumes and serves the scientific, academic and research needs of students and faculty. The *Daniel Underhill Music Library* contains around 19,000 books and scores, 12,500 recordings and listening equip-

Educational Resources

ment. A small collection of relevant material is located in the Black Cultural Center.

Special Library Collections

The College Library contains certain special collections: *British Americana*, accounts of British travellers in the United States; the works of English poets Wordsworth and Thomson bequeathed to the Library by *Edwin H. Wells*; the works of *Seamus Heaney*, winner of the Nobel Prize for Literature, 1995; the *W. H. Auden Collection* commemorating the English poet who taught at Swarthmore in the mid-forties; the *Bathe Collection* of the history of technology donated by Greville Bathe; the *Private Press Collection* representing the work of over 650 presses; and the *Swarthmoreana Collection* of over 6,000 publications by graduates of the College.

The Audiovisual Collection with 2,800 videotapes and discs and 1,400 spoken word recordings on disc and tape includes contemporary writers reading from and discussing their works; full-length versions of Shakespearean plays (both videocassettes and audiodiscs) and other dramatic literature; the literature of earlier periods read both in modern English and in the pronunciation of the time; recordings of literary programs held at Swarthmore; and video-recordings of U.S. and foreign classic feature films, as well as educational, documentary, and experimental films. These materials support the study of literature, art, dance, and history and are housed in the McCabe Library.

Within the McCabe Library building are two special libraries which enrich the academic background of the College:

The Friends Historical Library, founded in 1871 by Anson Lapham, is one of the outstanding collections in the United States of manuscripts, books, pamphlets, and pictures relating to the history of the Society of Friends. The library is a depository for records of Friends Meetings belonging to Baltimore, New York, Philadelphia, and other Yearly Meetings. More than 10,000 record books, dating from the 1670's until the present, have been deposited. Additional records are available on microfilm. The William Wade Hinshaw Index to Quaker Meeting Records lists material of genealogical interest. Special collections include materials on various subjects of Quaker concern such as abolition, Indian rights, utopian reform, and

the history of women's rights. Notable among the other holdings are the Whittier Collection (first editions and manuscripts of John Greenleaf Whittier, the Quaker poet), the Mott manuscripts (over 500 autograph letters of Lucretia Mott, antislavery and women's rights leader), and the Hicks manuscripts (more than 400 letters of Elias Hicks, a prominent Quaker minister). The library's collection of books and pamphlets by and about Friends numbers more than 43,000 volumes. More than 200 Quaker periodicals are currently received. There is also an extensive collection of photographs of meetinghouses and pictures of representative Friends and Quaker activities, as well as a number of oil paintings, including "The Peaceable Kingdom" by Edward Hicks. It is hoped that Friends and others will consider the advantages of giving to this library any books and family papers which may throw light on the history of the Society of Friends.

The Swarthmore College Peace Collection is of special interest to research students seeking the records of the peace movement. The records of the Women's International League for Peace and Freedom and the personal papers of Jane Addams of Hull-House, Chicago, formed the original nucleus of the Collection (1930). Over the years other major collections have been added including the papers of Devere Allen, Emily Greene Balch, Julien Cornell, Homer Jack, Lucy Biddle Lewis, A. J. Muste, Lawrence Scott, John Nevin Sayre, William Sollmann, E. Raymond Wilson, and others, as well as the records of the American Peace Society, A Quaker Action Group, Business Executives Move, CCCO, Fellowship of Reconciliation, Friends Committee on National Legislation, The Great Peace March, Lake Mohonk Conferences on International Arbitration, National Interreligious Service Board for Conscientious Objectors, National Council for Prevention of War, National Council to Repeal the Draft, SANE, War Resisters League, Women Strike for Peace, World Conference of Religion for Peace, and many others. The Peace Collection serves as the official repository for the archives of many of these organizations, incorporated here in more than 10,000 document boxes. The Collection also houses over 12,000 books and pamphlets and about 3,000 periodical titles.

Four hundred periodicals are currently received from 22 countries. The comprehensive *Guide to the Swarthmore College Peace Collection*, published in 1981, and the *Guide to Sources on Women in the Swarthmore College Peace Collection* describe the archival holdings. Web site: <http://www.swarthmore.edu/Library/peace>.

PHYSICAL FACILITIES

Laboratories, well-equipped for undergraduate instruction and in most cases for research, exist in astronomy, biology, chemistry, computer science, engineering, physics, and psychology. The Sproul Observatory, with its 24-inch visual refracting telescope, is the center of much fundamental research in multiple star systems. A 24-inch reflecting telescope on Papazian Hall is used for solar and stellar spectroscopy. The Edward Martin Biological Laboratory provides facilities for work in molecular, organismal, and population biology. A laboratory for Interdisciplinary Research, created with a grant from the Howard Hughes Medical Institute, is designated for the conduct of interdisciplinary scientific research by teams of faculty and students selected through an internally conducted, competitive process. The Pierre S. DuPont Science Building provides accommodations for chemistry, mathematics, and physics. Hicks Hall contains the engineering laboratories, several of which are equipped for computer-assisted and computer-controlled laboratory experimentation and a solar laboratory. Papazian Hall provides facilities for work in psychology, and for the engineering shops.

The *List Art Gallery* for exhibitions is located in the Eugene M. and Theresa Lang Performing Arts Center.

The *Eugene M. and Theresa Lang Music Building*, opened in 1973, contains an auditorium seating approximately 500, the Daniel Underhill Music Library, classrooms, practice and rehearsal rooms, and an exhibition area. It is the central facility for the program of the Music Department and for musical activities at the College.

The *Eugene M. and Theresa Lang Performing Arts Center*, opened in January, 1991, houses the *Pearson-Hall Theatre*, the largest performing stage on campus, and also the *Frear*

Ensemble Theatre, an experimental and instructional studio, the *Patricia Wityk Boyer Dance Studio* and a *Dance Lab*, and the *List Art Gallery*. The *Lang Performing Arts Center* also houses the offices of the English Literature Department, Theatre Studies program, and Dance Department, as well as seminar rooms, the theatre design studio, and set construction shop. The *Pearson-Hall Theatre* has a seating capacity of about 825 or of over 1,000 if seats are placed on stage. The theatre can be divided in two, with a cinema theatre on one side of a movable soundproof wall and a more intimate performing space on the other. The building is linked to the second floor of the *Lang Music Building* by a walk way and faces *Crum Woods* over the *Ann Lubin Buttenwieser Terrace*.

The *Trotter/North Campus Project* is the College's newest and most visual commitment to enhancing our educational environment.

Built in 1881, *Trotter Hall* is home to nearly one-quarter of the faculty and to more than half of all classes and seminars. Architectural plans have maintained the historic integrity of the exterior, while the interior has been completely renovated to provide technologically advanced classrooms, inviting seminar rooms, and modern faculty offices.

A new academic building, *Kohlberg Hall*, features spaces for use by the entire College community including a commons complete with an espresso bar, The *Scheuer Room* for lectures and gatherings, the *Corddry Wing* that houses the Department of Economics, and a dramatic courtyard. The building also houses the departments of modern languages and literatures and sociology/anthropology, 44 faculty offices, 13 classrooms and seminar rooms.

Surrounding these academic buildings are enhanced landscaping, new pedestrian walkways, and the creation of outdoor spaces conducive to conversing, studying, and relaxing.

The *Computing Center*, with offices located in *Beardsley Hall*, provides computing and telecommunication resources and support to all faculty, registered students, and College staff. Academic computing resources are comprised of several components: a number of DEC Alpha servers running UNIX managed by the *Computing Center*, a network of SUN Sparc workstations in the *Computer Science*

Educational Resources

Department, a network of HP workstations in the Engineering Department, a Power Macintosh lab in the Mathematics Department, and DEC Alpha systems in Chemistry, Astronomy and Physics departments. A specialized multi-media facility in Beardsley gives faculty a place to try out new technology and create presentations and multi-media projects for their courses. An Oracle database is used for the College's administrative data management needs. Fiber optic cabling ties these components together into a campus-wide network. The campus network is linked to the Internet allowing communication and data access on a global scale.

Macintosh computers are widely used for word processing as well as for data management and analysis. Power Macintosh computers are available in public areas in Beardsley, Trotter, DuPont, Kohlberg, and McCabe and Cornell libraries. Virtually every administrative and faculty office is equipped with Macintosh computers. Macintosh computers or any computer running Windows 95 or better connected to the residence hall network can be used to gain access to electronic mail, bulletin boards, the World Wide Web, Tripod (the library system shared with Bryn Mawr College and Haverford College), and a variety of software programs.

Copies of several commonly used commercial software packages are available on a restricted basis on the public area hard drives or on file servers connected to the network. Some of these file servers also contain an assortment of shareware and public domain software.

A computer purchase and a repair service are both located in Beardsley Hall. A variety of computer equipment is available for purchase and repair services for computers purchased on campus is provided.

The telecommunications department of the Computing Center provides telephone and voice mail services to faculty, staff, and students. Every student residing in a college dormitory room is provided with a private telephone and personal telephone number as well as a voice mail account. Long distance calling is available to students.

Assistance with the use of the College's computing resources is available on a number of levels. Students may seek help from Consultants who are available in the Beardsley public

area throughout most of the day and night, seven days a week. Faculty may seek assistance through a Help Desk or through Computing Center staff assigned to their respective division for curricular support.

The Center for Social and Policy Studies, located in Trotter 105, serves as a laboratory for the social sciences. The Center has a social science data archive available for empirical research on social and policy issues, and it provides statistical consulting for faculty and students. The Center also supports the concentration in Public Policy through its physical facilities, data archives and program of events.

SPECIAL FUNDS AND LECTURESHIPS

The William J. Cooper Foundation provides a varied program of lectures and concerts which enriches the academic work of the College. The Foundation was established by William J. Cooper, a devoted friend of the College, whose wife, Emma McIlvain Cooper, served as a member of the Board of Managers from 1882 to 1923. Mr. Cooper bequeathed to the College the sum of \$100,000 and provided that the income should be used "in bringing to the college from time to time eminent citizens of this and other countries who are leaders in statesmanship, education, the arts, sciences, learned professions and business, in order that the faculty, students and the college community may be broadened by a closer acquaintance with matters of world interest." Admission to all programs is without charge.

The Cooper Foundation Committee works with the departments and with student organizations in arranging single lectures and concerts, and also in bringing to the College speakers of note who remain in residence for a long enough period to enter into the life of the community. Some of these speakers have been invited with the understanding that their lectures should be published under the auspices of the Foundation. This arrangement has so far produced eighteen volumes.

The Promise Fund, established anonymously by an alumnus on the occasion of his graduation, is administered by the Cooper Foundation Committee. Income from the Promise Fund brings guest speakers and performers in music,

film, dance, and theatre who show promise of distinguished achievement.

The Alfred H. Bloom Jr. and Martha B. Bloom, parents of Alfred H. Bloom, Memorial Visiting Scholar Fund is the gift of Frank Solomon Jr. '50. It brings visiting scholars to campus at the discretion of the president.

The Barbara Weiss Cartwright Fund for Social Responsibility was created in 1993 by a gift from Barbara W. Cartwright '37 and Dorwin P. Cartwright '37. The Fund supports new or existing programs which encourage involvement in addressing societal problems through projects initiated by the College or created by current students. In addition, it will provide opportunities for faculty and students to participate in volunteer service projects linked to the academic program.

Wendy Susan Cheek '38 Memorial Fund for Women's Studies. Established in 1998 by Aimee Lee and William Francis Cheek, the fund supports student and/or programming needs of the Women's Studies Program, including the capstone seminar for Honors and Course students. The fund shall be spent at the direction of the Women's Studies Coordinator.

The Michael J. Durkan Memorial Fund was established by family and friends of Michael J. Durkan, Librarian Emeritus, to support library collections and to help bring Irish writers to campus.

The James A. Field, Jr. Memorial Fund was established by family and friends of James A. Field, Jr., Clothier Professor Emeritus of History, to support library collections.

The Bruce Hannay Fund was established by a gift from the General Signal Corporation in honor of N. Bruce Hannay '42. The fund will provide support for the academic program, with special consideration given to chemistry. Bruce Hannay was a research chemist with Bell Laboratories and received an honorary Doctor of Science degree from Swarthmore in 1979.

The James C. Hormel '55 Endowment for Student Services was established by James Hormel '55 to support staffing and programs related to student services and activities, including student involvement in volunteering and programs to encourage greater understanding of, sensitivity to, and incorporation into the great society of the differences in culture, sexual orientation, or race.

The William I. Hull Fund was established in 1958 by Mrs. Hannah Clothier Hull, Class of 1891, in memory of her late husband. Dr. Hull was Professor of History and International Law at Swarthmore College for 48 years. The Fund enables the College to bring a noted lecturer on peace to the campus each year in memory of Dr. and Mrs. Hull who were peace activists.

The Jonathan R. Lax Fund, created by his bequest in 1996, supports an annual Lax Conference on Entrepreneurship and Economic Anthropology. Jonathan Lax, Class of 1971, was class agent and a reunion leader. His parents, Stephen '41 and Frances Lax, and brothers Stephen G. Lax, Jr. (Gerry) '74, and Andrew Lax '78 have been actively involved at the College.

The List Gallery Exhibit Fund, established through the generosity of Mrs. Albert List, supports exhibits in the List Gallery of the Eugene M. and Theresa Lang Performing Arts Center.

The Joanna Rudge Long '56 Conflict Resolution Endowment was created in 1996 in celebration of the donor's 40th Reunion. The stipend is awarded to a student whose meritorious proposal for a summer research project or internship relates to the acquisition of skills by elementary school or younger children for the peaceful resolution of conflict.

The Sager Fund of Swarthmore College was established in 1988 by alumnus Richard Sager '73, a leader in San Diego's gay community. To combat homophobia and related discrimination, the fund sponsors events that focus on concerns of the lesbian, bisexual, and gay communities and promotes curricular innovation in the field of Lesbian and Gay Studies. The fund also sponsors an annual three-day symposium. The fund is administered by a committee of women and men from the student body, alumni, staff, faculty, and administration.

Created in 1996 in honor of Robert Savage, Professor Emeritus of Biology, the *Savage Fund* supports student research and other activities in cellular and molecular biology.

The Scheuer-Pierson Fund, established in 1978 by Walter and Marge Scheuer '48, supports the Economics Department.

The Scott Arboretum. About three hundred twenty-five acres are contained in the College property, including a large tract of woodland and the valley of Crum Creek. Much of this

Educational Resources

tract has been developed as a horticultural and botanical collection of trees, shrubs, and herbaceous plants through the provisions of the Scott Arboretum, established in 1929 by Mrs. Arthur Hoyt Scott and Owen and Margaret Moon as a memorial to Arthur Hoyt Scott of the Class of 1895. The plant collections are designed both to afford examples of the better kinds of trees and shrubs which are hardy in the climate of Eastern Pennsylvania and suitable for planting by the average gardener, and to beautify the campus. All collections are labeled and recorded. There are exceptionally fine displays of hollies, Japanese cherries, flowering crabapples, magnolias, and tree peonies, and a great variety of lilacs, rhododendrons, azaleas, and daffodils. Choice specimens from the collections are displayed in several specialty gardens including The Terry Shane Teaching Garden, The Theresa Lang Garden of Fragrance, the Dean Bond Rose Garden, the Isabelle Bennett Cosby '28 Courtyard, the Nason Garden and outdoor classroom, and the Metasequoia allée. Many interested donors have contributed generously to the collections, and the Arboretum is funded primarily by a restricted endowment and by outside grants.

The Arboretum conducts applied research on ornamental plants, and serves as a test site for three plant evaluation programs: the Gold Medal Award of Garden Merit through the Pennsylvania Horticultural Society, the performance of hollies through the American Holly Society, and the National Crabapple Evaluation Program.

The Arboretum offers horticultural educational programs to the general public and Swarthmore students. These workshops, lectures, and classes are designed to cover many facets of the science/art called gardening. Tours are conducted throughout the year for college people and interested public groups.

Aiding the Arboretum's staff, in all of its efforts, are the "Associates of the Scott Arboretum." This membership organization provides not only financial support but also assistance in carrying out the myriad operations which make up the Arboretum's total program, such as plant propagation, public lectures, and tours to other gardens. About 90 "Arboretum assistants" aid in campus maintenance on a regular basis by volunteering. Student mem-

berships are available. The Arboretum's newsletter, *Hybrid*, serves to publicize their activities and provides up-to-date information on seasonal gardening topics. Maps for self-guided tours and brochures of the Arboretum's plant collections are available at the Scott Offices (610) 328-8025, located in the Cunningham House.

The Scott Arboretum was accredited by the American Association of Museums in 1995, signifying its professional standards of operation as an arboretum.

The Barnard Fund was established in 1964 by two graduates of the College, Mr. and Mrs. Boyd T. Barnard of Rosemont, Pennsylvania. The fund has been augmented by the 50-year class gifts from the classes of 1917 and 1919, and other friends. The income from the fund may be used for any activity that contributes to the advancement of music at the College. It has been used, for example, for concerts on the campus, for the purchase of vocal and orchestral scores and other musical literature, and to provide scholarships for students in the Department of Music who show unusual promise as instrumentalists or vocalists.

The Gene D. Overstreet Memorial Fund, given by friends in memory of Gene D. Overstreet (1924-1965), a member of the Political Science Department, 1957-1964, provides income to bring a visiting expert to the campus to discuss problems of developing or modernizing nations and cultures.

The Benjamin West Lecture, made possible by gifts from members of the class of 1905 and other friends of the College, is given annually on some phase of art. It is the outgrowth of the Benjamin West Society which built up a collection of paintings, drawings, and prints, which are exhibited, as space permits, in the college buildings. The lecture owes its name to the American artist, who was born in a house which stands on the campus and who became president of the Royal Academy.

The Swarthmore Chapter of Sigma Xi lecture series brings eminent scientists to the campus under its auspices throughout the year. Local members present colloquia on their own research.

The Lee Frank Memorial Art Fund, endowed by the family and friends of Lee Frank, Class of 1921, sponsors each year a special event in the

Art Department: a visiting lecturer or artist, a scholar or artist in residence, or a special exhibit.

The Marjorie Heilman Visiting Artist Fund was established by M. Grant Heilman, Class of 1941, in memory of Marjorie Heilman to stimulate interest in art, particularly the practice of art, on campus.

The Gil and Mary Roelofs Stott Concert Fund was established in 1997 on the 25th Anniversary of the Lang Music Building. The Fund was created as an expression of deep affection for the Stotts by Eugene M. Lang, Class of 1938, to recognize their special artistic talents and all that they have meant to the Swarthmore community. Each year, a new musical composition will be commissioned by the College to be performed at an annual Gil and Mary Roelofs Stott Concert at which the Gil and Mary Roelofs Stott Resident Student Artist will perform.

The Thatcher Fund provides individualized assistance to students with disabilities. The purpose of the fund is to enable such students to take full advantage of the academic and extracurricular life of the College and to make Swarthmore a desirable choice for prospective students with disabilities. The fund was established in 1997.

Endowed Chairs

The Edmund Allen Professorship of Chemistry was established in 1938 by a trust set up by his daughter Laura Allen, friend of the college and niece of Manager Rachel Hillborn.

The Franklin E. and Betty Barr Chair in Economics was established in 1989 as a memorial to Franklin E. Barr, Jr. '48 by his wife, Betty Barr.

The Albert L. and Edna Pownall Buffington Professorship was established by a bequest from Albert Buffington, Class of 1896, in 1964, in honor of his wife, Edna Pownall Buffington, Class of 1898.

The Dorwin P. Cartwright Professorship in Social Theory and Social Action was created in 1993 by Barbara Weiss Cartwright, Class of 1937, to honor her husband, Dorwin P. Cartwright, Class of 1937. The Professorship shall be awarded for a period of five years to a full professor who has contributed to and has the promise of continuing major contributions to the understanding of how social theory can be brought to bear on creating a more humane and ethically responsible society.

Centennial Chairs. Three professorships, unrestricted as to field, were created in 1964 in honor of Swarthmore's Centennial from funds raised during the Centennial Fund Campaign.

The Isaac H. Clothier Professorship of History and International Relations was created in 1888 by Isaac H. Clothier, member of the Board of Managers. Originally in the field of Civil and Mechanical Engineering, he later approved its being a chair in Latin, and in 1912 he approved its present designation.

The Isaac H. Clothier, Jr., Professorship of Biology was established by Isaac H. Clothier, Jr. as a tribute of gratitude and esteem for Dr. Spencer Trotter, Professor of Biology, 1888-1926.

The Morris L. Clothier Professorship of Physics was established by Morris L. Clothier, Class of 1890, in 1905.

The Julien and Virginia Cornell Visiting Professorship was endowed by Julien Cornell '30, member, and Virginia Stratton Cornell '30, former member of the Board of Managers, to bring professors and lecturers from other nations and cultures for a semester or a year. Since 1962, from every corner of the world, Cornell professors and their families have resided on the campus so that they might deep-

en the perspective of both students and faculty.

The Alexander Griswold Cummins Professorship of English Literature was established in 1911 in honor of Alexander Griswold Cummins, Class of 1889, by Morris L. Clothier, Class of 1890.

The Howard N. and Ada J. Eavenson Professorship in Engineering was established in 1959 by a trust bequest of Mrs. Eavenson, whose husband graduated in 1895.

The Lewis H. Elverson Endowed Football Chair was established in 1989 by alumni who played for Coach Elverson and his family. The Chair supports the position of a full-time head coach for football.

The James H. Hammons Professorship was established in 1997 by Jeffrey A. Wolfson, Class of 1975, to recognize the inspiring academic and personal guidance provided by James H. Hammons, Professor of Chemistry, who began his distinguished teaching career at Swarthmore in 1964. The Professorship may be awarded in any division, with preference given to the Department of Chemistry.

The James C. Hormel Professorship in Social Justice, established in 1995 by a gift from James C. Hormel, Class of 1955, is awarded to a professor in any academic division whose teaching and scholarship stimulate increased concern for and understanding of social justice issues, including those pertaining to sexual orientation.

The Howard M. and Charles F. Jenkins Professorship of Quaker History and Research was endowed in 1924 by Charles F. Jenkins, Hon. '26 and member of the Board of Managers, on behalf of the family of Howard M. Jenkins, member of the Board of Managers, to increase the usefulness of the Friends Historical Library and to stimulate interest in American and Colonial history with special reference to Pennsylvania. The fund was added to over the years through the efforts of the Jenkins family, and by a 1976 bequest from C. Marshall Taylor '04.

The William R. Kenan, Jr. Professorship was established in 1973 by a grant from the William R. Kenan, Jr. Charitable Trust to "support and encourage a scholar-teacher whose enthusiasm for learning, commitment to teaching and sincere personal interest in students will enhance the learning process and make an effective contribution to the under-

graduate community.”

The Eugene M. Lang Research Professorship, established in 1981 by Eugene M. Lang '38, member of the Board of Managers, normally rotates every four years among members of the Swarthmore faculty and includes one year devoted entirely to research, study, enrichment or writing. It carries an annual discretionary grant for research expenses, books and materials.

The Eugene M. Lang Visiting Professorship endowed in 1981 by Eugene M. Lang '38, brings to Swarthmore College for a period of one semester to three years an outstanding social scientist or other suitably qualified person who has achieved prominence and special recognition in the area of social change.

The Sara Lawrence Lightfoot Professorship was created by the College in 1992 in recognition of an unrestricted gift by James A. Michener, Class of 1929. The professorship is named in honor of Sara Lawrence Lightfoot, Class of 1966, Doctor of Humane Letters, 1989, and former member of the Board of Managers.

The Susan W. Lippincott Professorship of French was endowed in 1911 through a bequest from Susan W. Lippincott, member of the Board of Managers, a contribution from her niece Caroline Lippincott, Class of 1881, and gifts by other family members.

The Edward Hicks Magill Professorship of Mathematics and Astronomy was created in 1888 largely by contributions of interested friends of Edward H. Magill, President of the College 1872-1889, and a bequest from John M. George.

The Charles and Harriett Cox McDowell Professorship of Philosophy and Religion was established in 1952 by Harriett Cox McDowell, Class of 1887 and member of the Board of Managers, in her name and that of her husband, Dr. Charles McDowell, Class of 1877.

The Mari S. Michener Associate Professorship was created by the College in 1992 to honor Mrs. Michener, wife of James A. Michener, Class of 1929, and in recognition of his unrestricted gift.

The Gil and Frank Mustin Professorship was established by Gilbert B. Mustin '42 and Frank H. Mustin '44 in 1990. It is unrestricted as to field.

The Richter Professorship of Political Science was established in 1962 by a bequest from Max Richter at the suggestion of his friend and attorney, Charles Segal, father of Robert L. Segal '46 and Andrew Segal '50.

The Scheuer Family Chair of Humanities was created in 1987 through the gifts of James H. Scheuer '42, Walter and Marge Pearlman Scheuer '44, and their children, Laura Lee '73, Elizabeth Helen '75, Jeffrey '75, and Susan '78 and joined by a challenge grant from The National Endowment for the Humanities.

The Howard A. Schneiderman '48 Professorship in Biology. Established in 1996 by his wife, Audrey M. Schneiderman, the chair is awarded to a professor in the Department of Biology. Howard Schneiderman, Class of 1948, was a noted corporate leader who developed research in genetic engineering and initiated research collaborations with academic institutions. He enjoyed a successful career in academic research in developmental biology and genetics. He was awarded an honorary degree from Swarthmore in 1982 and was elected to the National Academy of the Sciences and the American Academy of Arts and Sciences.

The Claude C. Smith '14 Professorship was established in 1996 by members of the Smith family and friends of Mr. Smith. A graduate of the class of 1914, Claude Smith was an esteemed lawyer with the firm of Duane, Morris and Heckscher, and was active at the College including serving as Chairman of the Board of Managers. This chair is awarded to a member of the Political Science Department or the Economics Department.

The Henry C. and J. Archer Turner Professorship of Engineering was established with their contributions and gifts from members of the Turner family in 1946 in recognition of the devoted service and wise counsel of Henry C. Turner, Class of 1893 and member of the Board of Managers, and his brother J. Archer Turner, Class of 1905 and member of the Board of Managers.

The Daniel Underhill Professorship of Music was established in 1976 by a bequest from Bertha Underhill to honor her husband, Class of 1894 and member of the Board of Managers.

The Marian Snyder Ware Professorship of Physical Education and Athletics was established by Marian Snyder Ware '38 in 1990. It is to be

Endowed Chairs

held by the Chair of the Department of Physical Education and Athletics.

The Joseph Wharton Professorship of Political Economy was endowed by a trust given to the College in 1888 by Joseph Wharton, President of the Board of Managers.

The Isaiah V. Williamson Professorship of Civil and Mechanical Engineering was endowed in 1888 by a gift from Isaiah V. Williamson.



Admission
Expenses

Financial Aid

Admission

Inquiries concerning admission and applications should be addressed to the Dean of Admissions, Swarthmore College, 500 College Ave., Swarthmore, Pennsylvania 19081-1397.

GENERAL STATEMENT

In the selection of students, the College seeks those qualities of character, social responsibility, and intellectual capacity which it is primarily concerned to develop. It seeks them, not in isolation, but as essential elements in the whole personality of candidates for admission. Selection is important and difficult. No simple formula will be effective. The task is to choose those who give promise of distinction in the quality of their personal lives, in service to the community, or in leadership in their chosen fields. Swarthmore College must choose its students on the basis of their individual future worth to society and of their collective realization of the purpose of the College.

It is the policy of the College to have the student body represent not only different parts of the United States but many foreign countries, both public and private secondary schools, and various economic, social, religious, and racial groups. The College is also concerned to include in each class sons and daughters of alumni and of members of the Society of Friends.

Admission to the first-year class is normally based upon the satisfactory completion of a four-year secondary school program. Under some circumstances, students who have virtually completed the normal four-year program in three years will be considered for admission, provided they meet the competition of other candidates in general maturity as well as readiness for a rigorous academic program.

All applicants are selected on the following evidence:

1. Record in secondary school.
2. Recommendations from the school principal, headmaster, or guidance counselor, and from two teachers.
3. Scores in the SAT-I (or earlier SAT) or the ACT.
4. Scores in three SAT-II: Subject Tests (or earlier Achievement Tests) one of which must be the writing or composition test.

Applicants considering a major in engineering must also take an SAT-II (or Achievement Test) in mathematics.

5. A brief statement about why the student is applying to Swarthmore, a brief essay on a meaningful activity or interest, and a longer essay (subject specified).
6. Reading, research, work, and travel experience, both in school and out.

Applicants must have satisfactory standing in school and SAT's, as well as strong intellectual interests. Other factors of interest to the College include strength of character, promise of growth, initiative, seriousness of purpose, distinction in personal and extra-curricular interests, and a sense of social responsibility. The College values the diversity which varied interests and backgrounds can bring to the community.

PREPARATION

Swarthmore does not require a set plan of secondary school courses as preparation for its program. The election of specific subjects is left to the student and school advisers. In general, however, preparation should include:

1. Accurate and effective use of the English language in reading, writing, and speaking.
2. Comprehension and application of the principles of mathematics.
3. The strongest possible command of one or two foreign languages. The College encourages students to study at least one language for four years, if possible.
4. Substantial course work in (a) history and social studies, (b) literature, art, and music, (c) the sciences. Variations of choice and emphasis are acceptable although some work in each of the three groups is recommended.

Those planning to major in engineering should present work in chemistry, physics, and four years of mathematics including algebra, geometry, and trigonometry.

APPLICATIONS AND EXAMINATIONS

Application to the College may be submitted through either the Regular Decision or one of

the Early Decision plans. Applicants follow the same procedures, submit the same supporting materials, and are evaluated by the same criteria under each plan.

The *Regular Decision* plan is designed for those candidates who wish to keep open several different options for their undergraduate education throughout the admissions process. Applications under this plan will be accepted at any time up to the January 1 deadline, but Part I should be submitted as early as possible to create a file for the candidate to which supporting material will be added up to the deadline.

The *Early Decision* plans are designed for candidates who have thoroughly and thoughtfully investigated Swarthmore and other colleges and found Swarthmore to be an unequivocal first choice. Early Decision candidates may file regular applications at other colleges with the understanding that these applications will be withdrawn upon admission to Swarthmore; however, one benefit of the Early Decision plans is the reduction of cost, effort, and anxiety inherent in multiple application procedures.

Application under any plan must be accompanied by a non-refundable application fee of \$60. Timetables for the plans are:

Fall Early Decision

Closing date for applications	November 15
Notification of candidate	on or before December 15

Winter Early Decision

Closing date for applications	January 1
Notification of candidate	on or before February 1

Regular Decision

Closing date for applications	January 1
Notification of candidate	on or before April 1

Candidates reply date	May 1
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Any Early Decision candidate not accepted will receive one of two determinations: a deferral of decision, which secures reconsideration for the candidate among the Regular Decision candidates, or a denial of admission, which withdraws the application from further consideration.

All applicants for first-year admission must

take the SAT-1 (or earlier SAT) or the ACT. They must also take three SAT-II: Subject Tests (or earlier Achievement Tests) one of which must be the writing or composition test. Applicants considering a major in Engineering must also take an SAT-II (or Achievement Test) in mathematics. It is strongly recommended that students whose first language is not English take the TOEFL.

Application to take these tests is usually done through the secondary school counseling office, but application may be made directly to the College Entrance Examination Board, Box 592, Princeton, New Jersey 08540. A bulletin of information may be obtained without charge from the Board. Students who wish to be examined in any of the following western states, provinces, and Pacific areas—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, Alberta, British Columbia, Manitoba, Saskatchewan, Mexico, Australia, and all Pacific Islands including Taiwan and Japan—should address their inquiries and send their applications to the College Entrance Examination Board, Box 1025, Berkeley, California 94701. Application should be made to the Board at least a month before the date on which the test will be taken.

For those students wishing to take the ACT, information may be obtained by writing to ACT, P.O. Box 414, Iowa City, IA 52243.

No additional tests are required of candidates for scholarships. All applicants who would like to be considered for any of our scholarships should complete their applications at the earliest possible date. Information concerning financial aid will be found on pages 25-36.

Under certain circumstances, admitted students may apply in writing to defer their admission for one year. These requests must be approved in writing by the Dean of Admissions.

THE INTERVIEW

An admissions interview with a representative of the College is a recommended part of the application process. Applicants should take the initiative in arranging for this interview. Those who can reach Swarthmore with no

Admission

more than a half day's trip are urged to make an appointment to visit the College for this purpose.* Other applicants should request a meeting with an alumni representative in their own area. Interviews with alumni representatives take longer to arrange than interviews on campus. Applicants must make alumni interview arrangements well in advance of the final dates for receipt of supporting materials.

Arrangements for on-campus or alumni interviews can be made by writing to the Office of Admissions, by calling 610-328-8300 or 800-667-3110, or by contacting the office by e-mail: admissions@swarthmore.edu.

ADVANCED PLACEMENT

Entering first-year students with special credentials may be eligible during the first semester for advanced placement (placement into courses with prerequisites) and/or credit towards graduation from Swarthmore (32 credits are required). All decisions are made on a subject by subject basis by individual Swarthmore departments. Typically, special credentials consist of Advanced Placement examinations of the College Entrance Examination Board, higher level examinations of the International Baccalaureate, certain other foreign certifications (such as British A-Levels or the German Abitur), or courses taken at another college. Every effort is made to place students at the appropriate level, but no department is required to give credit for work done elsewhere. Credit is denied if a student chooses to take a course at Swarthmore that essentially repeats the work covered by the credit.

In some cases students may qualify for advanced standing—they may become juniors in their second year. To qualify for advanced standing a student must 1) do satisfactory work in the first semester; 2) obtain 14 credits by the end of the first year; 3) intend to complete the degree requirements in 3 years; and 4) signify this intention when she/he applies for a major by writing a sophomore paper during the spring of the first year.

Those students who wish to have courses taken at another college considered for either advanced placement or credit must provide an

official transcript from the institution attended as well as written work (papers, examinations), syllabi, and reading lists in order that the course work may be evaluated by the department concerned. Such requests for credit must be made within the first year at Swarthmore. Departments may set additional requirements. For instance, students may be required to take a placement examination at Swarthmore to validate their previous work.

APPLICATIONS FOR TRANSFER

The College welcomes well-qualified transfer students but, in fact, is able to accept very few applicants. Applicants for transfer must have had an outstanding academic record in the institution attended and must present full credentials for both college and preparatory work, including a statement of honorable dismissal. They must take the SAT-I (or earlier SAT) given by the College Entrance Examination Board or the ACT if one of these tests has not been taken previously.

Four semesters of study at Swarthmore College constitute the minimum requirement for a degree, two of which must be those of the senior year. Applications for transfer must be filed by April 1 of the year in which entrance is desired. Swarthmore does not have a mid-year transfer application process. Financial assistance is available for transfer students as long as they are not foreign nationals.

*Directions for reaching the College can be found inside the back cover of this catalogue.

Expenses

STUDENT CHARGES

Total charges for the 1998-99 academic year (two semesters) are as follows:

Tuition	\$23,020
Room	3,854
Board	3,646
Student Activities Fee	220
	<u>\$30,740</u>

These are the annual charges billed by the College. Students and their parents, however, should plan for expenditures associated with books, travel, and other personal items. In addition, the College will bill for unpaid library fines, Health Center fees, and other fees and fines not collected at the source.

Students engaged in independent projects away from the College for which regular academic credit is anticipated are expected to register in advance in the usual way and pay normal tuition. If the student is away from the College for a full semester, no charge for room and board will be made; but, if a student is away only for a part of a semester the above charges may be made on a pro rata basis.

Late fees of 1½% per month will accrue on all past-due balances. Students with past-due balances will not be permitted to attend college the following semester, participate in the room lottery, graduate, nor obtain a transcript.

The regular College tuition covers the normal program of four courses per term as well as vari-

ations of as many as five courses or as few as three courses. Students who elect to carry more than five courses incur a unit charge for the additional course (\$2,877) or half course (\$1,478), although they may within the regular tuition vary their programs to average as many as five courses in the two semesters of any academic year. College policy does not permit programs of fewer than three courses for degree candidates in their first eight semesters of enrollment.

Study abroad: Students who wish to receive Swarthmore credit for study abroad must, for the semester or year abroad, pay the full Swarthmore charges (excluding the student activities fee). Financial aid is normally applicable to study abroad, with the approval of the office for foreign study. Students contemplating study abroad should contact Steven Piker, Foreign Study Advisor, well in advance for academic and administrative planning.

PAYMENT POLICY

Semester bills are mailed in July and December. Payment for the first semester is due by August 14 and for the second semester by January 15. A 1.5 percent late fee will be assessed monthly on payments received after the due date. Many parents have indicated a preference to pay college charges on a monthly basis rather than in two installments. For this reason, Swarthmore offers a monthly payment

WITHDRAWAL POLICY

Charges for tuition and fees will be reduced for students who withdraw for reasons approved by the Dean prior to or during a semester. Reductions in charges will be made in the following ways:

<i>for students who withdraw prior to</i>	<i>tuition and fees will be reduced</i>	<i>board fees will be reduced</i>
week 2 of classes	to \$200	by 95%
week 3 of classes	by 90%	by 90%
week 4 of classes	by 80%	by 85%
week 5 of classes	by 70%	by 80%
week 6 of classes	by 60%	by 75%
week 7 of classes	by 50%	by 70%
week 8 of classes	no further reductions	by 65%
week 9 of classes	—	by 60%
week 10 of classes	—	by 55%
no reductions thereafter	—	

(continued next page)

Expenses

plan, which provides for payment in installments without interest charges. Information on the plan is mailed to all parents in April.

The following penalties will be imposed on students who select a room in the lottery but do not live in it.

For Fall Semester: If you selected a room in the lottery and choose to live off-campus but are still enrolled, you will be assessed a \$500.00 penalty unless everyone in the space notifies the Residential Life Office by the end of the spring semester that they will not be occupying that room. If you selected a room in the lottery and take a Leave of Absence and notify the Dean's Office by August 1, there will be a \$100.00 penalty; after August 1 and before mid-semester, a penalty of \$1,000; after mid-semester, there will be no room refund.

For Spring Semester: If you selected a room in the lottery and choose to live off-campus but are still enrolled, you will be assessed a \$250.00 penalty unless everyone in the unit leaves this space.

If you selected a room in the lottery and take a Leave of Absence and notify the Dean's Office by December 1, there will be no penalty; between December 1 and January 15, a \$100.00 penalty; after January 15 and before mid-semester, a \$1,000 penalty; after mid-semester, no room refund.

INQUIRIES All correspondence regarding payment of student charges should be addressed to Denise Risoli, Bursar, 610/328-8394.

Financial Aid

The College strives to make it possible for all admitted students to attend Swarthmore, regardless of their financial circumstances, and to enable them to complete their education if financial reversals take place. About fifty percent of the total student body currently receives aid from the College. Most financial aid awarded by the College is based upon demonstrated financial need and is usually a combination of scholarship, loan, and student employment. The College is committed to meeting all demonstrated financial need, and demonstrated need is assessed by a careful review of families' financial circumstances.

A prospective student must apply for Swarthmore and for outside assistance while applying for admission: admission and financial aid decisions are, however, made separately. Instructions for obtaining and filing an application are included in the admissions application. Financial assistance will be offered if family resources are not sufficient to meet College costs. The amount a family is expected to contribute is determined by weighing the family's income and assets against such demands as taxes, living expenses, medical expenses, and siblings' undergraduate tuition expenses, etc. Family contribution also includes a \$1,340-\$1,750 summer earnings contribution as well as a portion of the student's personal savings and assets.

For 1998-99 the College bill, which includes tuition, room and board, and a comprehensive fee, will be \$30,740. This comprehensive fee covers not only the usual student services—health, library, laboratory fees, for example—but admission to all social, cultural, and athletic events on campus. The total budget figure against which aid is computed is \$32,430. This allows \$1,690 for books and personal expenses. A travel allowance is added to the budget for those who live in the U.S. but more than 100 miles from the College.

In keeping with the policy of basing financial aid upon need, the College reviews each student's award annually. Mid-year each student who has aid must submit a new financial aid application for the next academic year. A student's aid is not withdrawn unless financial need is no longer demonstrated. Assistance is available only during a normal-length undergraduate program (8 semesters) and while a student makes satisfactory academic progress. These limitations are also applied in our con-

sideration of a sibling's educational expenses. Students who choose to live off campus will not receive College scholarship or College loan assistance in excess of their College bill. The cost of living off campus will, however, be recognized in the calculation of a student's financial need and outside sources of aid may be used to help meet off-campus living expenses.

U.S. students who have not previously received financial aid may become eligible and may apply to receive aid if their financial situations have changed. A student who marries may continue to apply for aid, but a contribution from the parents is expected equal to the contribution made were the student single.

The College has, by action of our Board, reaffirmed its need-blind admission policy and the related practice of meeting the demonstrated financial need of all admitted or enrolled students. Eligibility for federal aid funds is now limited to those who are able to complete and submit to us the Statement of Registration Compliance, but additional funds have been made available for those who are unable to accept need-based federal aid because they have not registered with the Selective Service.

Financial support for foreign citizens is limited and must be requested during the admission application process (no new aid applications can be considered after admission).

A special brochure has been prepared to advise families of the various sources of aid, as well as a variety of financing options. Please request a copy from our Admissions Office. You may also find the answers to most of your financial aid questions at our Website, www.swarthmore.edu (click on "campus links" to find financial aid).

SCHOLARSHIPS

For the academic year 1998-99 we awarded more than \$12 million in Swarthmore scholarship funds. About one half of that sum was provided through the generosity of alumni and friends by special gifts and the endowed scholarships listed on pp. 26-36. The Federal government also makes Pell Grants and Supplemental Educational Opportunity Grants available. It is not necessary to apply for a specific College scholarship; the College decides who is to receive endowed scholarships and others are

Financial Aid

helped from general scholarship funds. Although some endowed scholarships are restricted by locality, sex, religion or physical vigor, the College's system of awarding aid makes it possible to meet need without regard to these restrictions. Financial need is a requirement for all College scholarships unless otherwise indicated.

LOAN FUNDS

Long-term, low-interest loan funds with generous repayment terms combine with Swarthmore's scholarship programs to enable the College to meet the needs of each student. Although most offers of support from the College include elements of self-help (work and borrowing opportunities), the College strives to keep a student's debt at a manageable level.

Aided students are expected to meet a portion of their demonstrated need (from \$1,000 to about \$5,500) through the federal Stafford Loan Programs, Perkins Loan, or the Swarthmore College Loan (SCL); the College determines which source is appropriate for which student. Each of these programs allows the borrower to defer repayment until after leaving school, and each allows further deferment of the debt if the borrower goes on to graduate school. Up to 10 years may be taken to repay Stafford, Perkins, or Swarthmore College Loans. No separate application is needed for the Perkins or SCL loans since the College administers these funds. Stafford Loan applications must be initiated by the student with a bank.

Parents who wish to borrow might consider the Federal PLUS Loan. Up to \$30,000 per year is available at a variable interest rate. Repayment may be made over a 10 year period.

For more information about these loan programs read our Financial Aid Brochure (available from our admission office) or visit our Website.

The College also maintains special loan funds which are listed below:

The Jay and Sandra Levine Loan Fund

The Thatcher Family Loan Fund

The Swarthmore College Student Loan Fund

The Joseph W. Conard Memorial Fund, estab-

lished by friends of the late Professor Conard, provides short-term loans without interest to meet student emergencies. Income earned by *The Alphonse N. Bertrand Fund* is also available for this purpose.

STUDENT EMPLOYMENT

Student employment on the Swarthmore campus is coordinated by the Student Employment Office, which is under student direction. Jobs are available in such areas as the library, departmental offices, the post office, the student-run coffee house, etc., and placements can be arranged when students arrive in the fall. On-campus rates of pay run from \$5.60 to \$6.15 per hour. Students receiving financial aid are usually offered the opportunity to earn up to \$1,340 during the year and are given hiring priority, but there are usually jobs available for others who wish to work on campus.

The Student Employment Office publicizes local off-campus and temporary employment opportunities. Students are generally able to carry a moderate working schedule without detriment to their academic performance. We hope that students will not work more than seven hours weekly.

For students who qualify under the federal College Work-Study Program (most aided students), off-campus placements in public or private, non-profit agencies in the local or Philadelphia area can be arranged through the Financial Aid Office during the academic year or nation-wide during the summer (when federal funds are sufficient). Among suitable agencies are hospitals, schools, museums, social service agencies and local, state or federal government agencies.

Scholarships

All students who demonstrate financial need are offered our scholarship aid, some of which is drawn from the following endowments. Students need not worry if they do not fit specific restrictions listed below, however, for their scholarships will be drawn from other sources not listed here.

(Financial need is a requirement for all scholarships unless otherwise indicated. No separate ap-

plication is needed.)

The Aetna Foundation Scholarship Grant provides assistance to minority students with financial need.

The Lisa P. Albert Scholarship is awarded to a young man or woman on the basis of scholarship and need with preference given to those with a demonstrated interest in the humanities.

The George I. Alden Scholarship Fund established as a memorial by the Alden Trust is awarded on the basis of merit and need with preference to a student from New England studying in the sciences or engineering.

The Vivian B. Allen Foundation provides scholarship aid to enable foreign students to attend Swarthmore College, as part of the Foundation's interest in the international exchange of students.

The Jonathan Leigh Altman Scholarship, given in memory of this member of the Class of 1974 by Shing-mei P. Altman '76, is awarded, on the recommendation of the Department of Art, to a junior who has a strong interest in the studio arts. It is held during the senior year.

The Alumni Scholarship is awarded to students on the basis of financial need. Established in 1991, this endowment is funded through alumni gifts and bequests.

The Evenor Armington Scholarship is given each year to a worthy student with financial need in recognition of the long-standing and affectionate connection between the Armington family and Swarthmore College.

The Frank and Marie Aydelotte Scholarship is awarded to a new student who shows promise of distinguished intellectual attainment based upon sound character and effective personality. The award is made in honor of Frank Aydelotte, President of the College from 1921-1940, and originator of the Honors program at Swarthmore, and of Marie Osgood Aydelotte, his wife.

The Philip and Roslyn Barbash, M.D. Scholarship was endowed in 1990 as a memorial by their daughter and son-in-law, Babette B. Weksler, M.D. '58 and Marc E. Weksler, M.D. '58. It is awarded on the basis of merit and need and is renewable through the senior year. Preference is given to women with interest in the sciences and, in particular, in the environment.

The Philip H. Barley Memorial Scholarship, established in memory of Philip H. Barley, '66, by his family and friends and the Class of 1966, which he served as president, provides financial assistance for a junior or senior who has demonstrated outstanding leadership qualities at Swarthmore.

The Franklin E. Barr, Jr. '48 Scholarship is awarded to a first-year student who has broad academic and extracurricular interests and who shows promise of developing these abilities for the betterment of society. This scholarship is based on need and is renewable for three years.

The H. Albert Beekhuis Scholarship in engineering is awarded on the basis of merit and need to a first-year student and is renewable through the senior year as long as that student retains a major in engineering. This scholarship is endowed through the generous bequest of Mr. Beekhuis, neighbor, friend, and successful engineer.

Patty Y. and A. J. Bekavac Scholarship. Established in 1997 by their daughter, Nancy Y. Bekavac '69, the scholarship is awarded on the basis of need, with preference given to students from western Pennsylvania.

The Brand and Frances Blanshard Scholarship is given in their memory to a deserving student with high academic promise.

The Curtis Bok Scholarship was established in the College's Centennial Year 1964 in honor of the late Philadelphia attorney, author and jurist, who was a Quaker and honorary alumnus of Swarthmore. The scholarship is assigned annually to a junior or senior whose qualities of mind and character indicate a potential for humanitarian service such as Curtis Bok himself rendered and would have wished to develop in young people. Students in any field of study, and from any part of this country or from abroad, are eligible. The scholarship is renewable until graduation.

The Edward S. Bower Memorial Scholarship, established by Mr. and Mrs. Ward T. Bower in memory of their son, Class of '42, is awarded annually to a man or woman student who ranks high in scholarship, character, and personality.

The Daniel Walter Brenner Memorial Scholarship, established by family and friends in memory of Daniel W. Brenner, Class of 1974, is awarded to a senior majoring in biology who is distin-

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guished for scholarship and an interest in plant ecology, or wildlife preservation, or animal behavior research. The recipient is chosen with the approval of biology and Classics faculty.

The Malcolm Campbell Scholarship, established by Malcolm Campbell '44 on the occasion of his 50th Reunion, is awarded to a student who is an active Unitarian Universalist with financial need and a strong academic record. The scholarship is renewable through the senior year.

The William and Eleanor Stabler Clarke Scholarships, established in their honor by Cornelia Clarke Schmidt '46 and W. Marshall Schmidt '47, are awarded to two worthy first-year students with need. Preference is to be accorded to members of the Society of Friends. These scholarships are renewable through the senior year.

The Class of 1930 Scholarship was endowed by the Class on the occasion of their 60th reunion. It is awarded alternately to a woman or a man on the basis of sound character and academic achievement, with preference to those who exercise leadership in athletics and community service. The scholarship is renewable through the senior year.

The Class of 1939 Scholarship was established at the 50th reunion of the class in fond memory of Frank Aydelotte, President of the College from 1921 to 1940, and his wife, Marie Aydelotte. It is awarded to a worthy student with need and is renewable through the senior year.

The Class of 1941 Scholarship was created in celebration of the fiftieth reunion of the Class. It is awarded on the basis of merit and need and is renewable through the senior year.

The Class of 1943 Scholarship, established to honor the 50th reunion of that class, is awarded to a student in the sophomore class on the basis of sound character and academic achievement, with preference given to those participating in athletics and community service. The scholarship is renewable through the senior year.

The Class of 1946 Scholarship, established on the occasion of the class's 50th Reunion in recognition of the Swarthmore tradition which so influenced its members.

The Class of 1963 Scholarship is awarded on the basis of merit and need and is renewable

through the senior year. The scholarship was created in honor of the class's 25th reunion.

The Class of 1969 Scholarship was established at the 25th Reunion of the class in honor of the contributions made by Courtney Smith, president of Swarthmore College from 1953 to 1969. The scholarship was given with bitter-sweet memories of the campus turmoil of the 1960s and with confidence in the power of open discussion and reconciliation. The scholarship is awarded on the basis of merit and need and is renewable through the senior year.

The N. Harvey Collisson Scholarship established by his family and the Olin Mathieson Charitable Trust in memory of N. Harvey Collisson of the Class of 1922 is awarded to a first-year man or woman. Selection will place emphasis on character, personality, and ability.

The David S. Cowden Scholarship was established by Professor David S. Cowden, Class of 1942, who taught English Literature at Swarthmore from 1949 until his death in May 1983. It is awarded on the basis of financial need.

The Marion L. Dannenberg Scholarship is awarded to a first-year student with financial need who ranks high in personality, character, and scholarship. This endowment is in memory of Mrs. Dannenberg who was mother and grandmother of six students who attended Swarthmore.

The Edith Thatcher '50 and C. Russell '47 de Burlo Scholarship is awarded alternately to students intending to major either in engineering or in the humanities. It is awarded on the basis of need and merit and is renewable annually. It is the gift of Edith and Russell de Burlo.

The District of Columbia Scholarship was established by alumni residents in the area of Washington, D.C., to encourage educational opportunity for qualified minority and disadvantaged students. Awards are made on the basis of merit and need.

Edward L. Dobbins '39 Memorial Scholarship. Established by Hope J. Dobbins in memory of her husband, the Dobbins scholarship is awarded to a worthy student who demonstrates a commitment to the betterment of society through involvement in community or environmental activism. The scholarship is renewable through the senior year. (Preference is given to residents of Berkshire County, Massachusetts.)

The Francis W. D'Olier Scholarship, in memory of Francis W. D'Olier of the Class of 1907, is awarded to a first-year student. Selection will place emphasis on character, personality, and ability. It is renewable through the senior year.

The Robert K. Enders Scholarship, established by his friends and former students, to honor Dr. Robert K. Enders, a member of the College faculty from 1932 to 1970, is awarded annually to a worthy student with an interest in the study of biological problems in a natural environment.

The Philip Evans Scholarship is established in fond memory of a member of the Class of 1948 by his friend Jerome Kohlberg '46 and seeks to expand the diversity of the Swarthmore community by bringing to this campus outstanding students with need, whether from near or far. The scholarship is awarded to members of the first-year class and is renewable annually, and provides a summer opportunity grant which is awarded on the recommendation of the Dean.

The Samuel and Gretchen Vogel Feldman Scholarship is awarded to a student interested in pursuing a teaching career. It is awarded on the basis of need and is renewable through the senior year.

The Elizabeth Pollard Fetter String Quartet Scholarships, endowed by Frank W. Fetter '20, Robert Fetter '53, Thomas Fetter '56, and Ellen Fetter Gille in memory of Elizabeth P. Fetter '25, subsidize the private instrumental lessons of four top-notch student string players at the College. Interested applicants should write to the Chairman of the Department of Music and should plan to play an audition at the College when coming for an interview. Membership in the Quartet is competitive. At the beginning of any semester, other students may challenge and compete for a place in the Quartet.

The Polly and Gerard Fountain Scholarship has been established in their honor by Rosalind Chang Whitehead '58 in appreciation of their kindness and support during her college years. It is awarded to a first-year student with need and merit, and is renewable through the senior year.

The David W. Fraser Scholarship. This endowed scholarship has been established by the Board of Managers and friends of David Fraser in honor of his service as President of Swarthmore College from 1982 to 1991. This need-

based scholarship will be awarded each semester to one student enrolled in an approved program of academic study outside the boundaries of the United States. Preference will be given for students studying in Asian, Middle Eastern, and African countries.

The Theodore and Elizabeth Friend Scholarship is established as an expression of respect and appreciation by Board members and others who have been associated with them in the service of Swarthmore College. The scholarship will be awarded each year on the basis of need to a worthy student.

The Joyce Mertz Gilmore Scholarship is awarded to an entering first-year student, and may be renewed for each of the following three undergraduate years. The recipient is chosen on the basis of mental vigor, concern for human welfare, and the potential to contribute to the College and the Community outside. The award was established in 1976 by Harold Mertz '26 in memory of Joyce Mertz Gilmore, who was a member of the class of 1951.

The Barbara Entenberg Gimbel Scholarship Fund was endowed in memory of Barbara Entenberg Gimbel '39 by her husband, Dr. Nicholas S. Gimbel. The scholarship is awarded on the basis of need to a worthy student, with preference to a black candidate.

The John D. Goldman '71 Scholarship is awarded on the basis of need to a student with a strong academic record and leadership qualities. Preference is given to students from northern California.

The Berda Goldsmith Scholarship, established 1991 in memory of Mrs. Goldsmith, is a need-based scholarship awarded annually to a music major beginning in his or her junior year. Mrs. Goldsmith was a music lover and patroness of the Settlement Music School. Accordingly, in the selection of The Berda Goldsmith Scholar, preference will be given to a student who attended the Settlement Music School; preference also will be given to a student who shows interest and proficiency in playing the piano.

The Lucinda Buchanan Thomas '34 and Joseph H. Hafkenschiel '37 Scholarship Fund was established as a memorial to Lucinda Thomas in 1989 by her husband and sons, Joseph III '68, B.A. Thomas '69, Mark C. '72, and John Proctor '80. Lucinda's father, B.A. Thomas, M.D. graduated with the Class of 1899. This

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scholarship is awarded to a junior and is renewable for the senior year, based on need. Preference is given to students who have demonstrated proficiency in water sports or who have shown talent in studio arts and who have been outstanding in service to the College.

The Mason Haire Scholarship is given by his wife, Vivian, in honor of this member of the Class of 1937, a distinguished psychologist and sometime member of the Swarthmore College faculty. The scholarship is awarded to a first-year student with financial need who is distinguished for intellectual promise and leadership. It is renewable through the senior year.

The Margaret Johnson Hall Scholarship for the Performing Arts is the gift of Margaret Johnson Hall, Class of 1941. It provides financial assistance based on merit and need, with preference to students intending to pursue a career in music or dance.

The William Randolph Hearst Scholarship Fund for Minority Students, established by the Hearst Foundation, Inc., provides financial assistance to minority students with need.

The Stephen B. Hitchner, Jr., '67 Scholarship was established in 1990 by the Board of Managers in memory of Stephen B. Hitchner, Jr. with gratitude for his strong leadership of the Student Life Committee and his previous service to the College. Recipients of this need-based scholarship will be selected from the junior class for their interest in a career in the public or non-profit sectors and is renewable in the senior year.

The Hispanic Scholarship, funded in part by the Ahmanson Foundation and in part by John C. Crowley '41, supports grants to Hispanic students from the Western states.

The Betty Stern Hoffenberg Scholarship, established in 1987 in honor of this member of the Class of 1943, is awarded to a junior or senior with merit and need who shows unusual promise, character, and intellectual strength. Strong preference is given to a student majoring in history.

The Carl R. Horten '47 Scholarship was created by the Ingersoll-Rand Company. Preference in the awarding is given to students planning to major in engineering or pre-law.

The Richard Humphreys Fund Scholarship provides assistance to a student (or students) of

African descent.

The Everett L. Hunt Scholarship, endowed by the Class of 1937 in the name of its beloved emeritus professor and dean, provides an unrestricted scholarship to be awarded annually by the College.

The Betty P. Hunter Scholarship Fund. Betty P. Hunter, Class of 1948, one of the first black students to attend Swarthmore College, established this fund through a bequest "to provide scholarship aid to needy students."

The William Y. Inouye '44 Scholarship, established in loving memory by his family, friends, and colleagues in recognition of his life of service as a physician, is awarded to a worthy junior premedical student with need. The scholarship is renewable in the senior year.

The George B. Jackson '21 Scholarship has been endowed by Gene Lang '38 in honor of the man who guided him to Swarthmore. It is to be awarded on the basis of need and merit with preference given to a student from the New York metropolitan area.

The Howard M. and Elsa P. Jenkins Scholarship in engineering provides financial assistance to a promising sophomore or junior with need who is interested in pursuing a career in engineering. It is the gift of Elsa Palmer Jenkins '22, Swarthmore's first woman graduate in engineering.

The Howard Cooper Johnson Scholarship, established by Howard Cooper Johnson '96, is awarded on the basis of all-around achievement to a male undergraduate who is a member of the Society of Friends.

The Edmund A. Jones Scholarship Fund was created in 1965, awarding a grant each year to a graduate of Swarthmore High School and, since 1983, to a graduate of Strath Haven High School. In 1997, this four-year, renewable scholarship was designated for graduates of Strath Haven High School with demonstrated financial need who attend Swarthmore College. Edmund A. Jones was the son of Adalyn Purdy Jones, Class of 1940 and Edmund Jones, Class of 1939, long-time residents of Swarthmore.

The Kennedy Scholarship is given in honor of the parents and with thanks to the children of Christopher and Jane Kennedy. The scholarship is awarded on the basis of need and merit and is renewable through four years.

The Florence and Melville Kershaw Scholarship is endowed in their honor by their son Thomas A. Kershaw, Class of 1960. It is awarded to a first-year student on the basis of need and merit, with preference to those intending to major in engineering, and is renewable through the senior year.

The William H. Kistler '43 Scholarship is endowed in his memory by his wife, Suzanne, and his friends and former classmates. It is awarded to a needy and deserving student majoring in engineering or economics.

The Paul and Mary Jane Kopsch Scholarship Fund, established through a gift of Paul J. Kopsch of the Class of '46, is awarded each year to a junior premedical student(s) with financial need. The scholarship is renewable in the senior year.

The Walter W. Krider '09 Memorial Scholarship. Established by his wife and daughter in 1965, the Krider scholarship is awarded to a student who ranks high in scholarship, character and personality, and has financial need.

The Kyle Scholarship, established in 1993 by Elena Sogan Kyle '54, Frederick W. Kyle '54, and Robert B. Kyle, Jr. '52, is awarded in the junior or senior year to a student who has shown leadership capability, made significant contributions to the life of the College, and demonstrated the need for financial assistance.

The Laurence Lafore '38 Scholarship was established in his memory in 1986 by family, friends, classmates, and former students. Professor Lafore, author of numerous books and essays, taught history at Swarthmore from 1945 until 1969. This scholarship is awarded to a needy student showing unusual promise and is renewable through four years.

The Barbara Lang Scholarship is awarded to a student in the junior class whose major is in the arts, preferably in music, who ranks high in scholarship and has financial need. It is renewable in the senior year. This scholarship was established by Eugene M. Lang '38 in honor of his sister.

Eugene M. Lang Opportunity Grants are awarded each year to as many as five entering students who are selected by a special committee on the basis of distinguished academic and extra-curricular achievement and demonstrable interest in social change. Stipends are based on financial need and take the form of

full grants up to the amount of total college charges. Each Lang Scholar is also eligible for summer or academic year community service support, while an undergraduate, up to a maximum of \$11,000. Projects, which must be approved in advance by a faculty committee, are expected to facilitate social change in a significant way. The program is made possible by the gift of Eugene M. Lang '38.

The Ida and Daniel Lang Scholarship established by their son, Eugene M. Lang of the Class of 1938, provides financial assistance for a man or woman who ranks high in scholarship, character, and personality.

The Eleanor B. and Edward M. Lapham, Jr. '30 Scholarship established in 1996, is awarded to a first-year student on the basis of merit and need. The scholarship is renewable for his or her years of study at Swarthmore.

The Frances Reiner and Stephen Girard Lax Scholarship has been established with preference for minority or foreign students who show both merit and need. This scholarship has been endowed by the family of Stephen Girard Lax '41, who was Chairman of the Board of Managers of Swarthmore College from 1971 to 1976.

The Stephen Girard Lax Scholarship, established by family, friends and business associates of Stephen Lax '41, is awarded on the basis of financial need every two years to a student entering the junior year and showing academic distinction, leadership qualities, and definite interest in a career in business.

The Scott B. Lilly Scholarship, endowed by Jacob T. Schless of the Class of 1914 at Swarthmore College, was offered for the first time in 1950. This scholarship is in honor of a former distinguished Professor of Engineering and, therefore, students who plan to major in engineering are given preference. An award is made annually.

The Lloyd-Jones Family Scholarship is the gift of Donald '52 and Beverly Miller '52 Lloyd-Jones and their children Anne '79, Susan '84, Donald '86, and Susan's husband Bob Dickinson '83. It is awarded on the basis of merit and need and is renewable through the senior year.

Amy Chase Loftin '29 Scholarship. Established in 1998, the Loftin scholarship is awarded to a sophomore, with preference given to Native Americans and African Americans. The schol-

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arship is renewable through the senior year.

The Joan Longer '78 Scholarship was created as a memorial in 1989 by her family, classmates, and friends, to honor the example of Joan's personal courage, high ideals, good humor, and grace. It is awarded on the basis of merit and need and is renewable through the senior year.

The David Laurent Low Memorial Scholarship, established by Martin L. Low, Class of 1940, his wife, Alice, Andy Low, Class of 1973, and Kathy Low in memory of their son and brother, is awarded to a man or woman who gives the great promise that David himself did. The award assumes both need and academic excellence, and places emphasis, in order, on qualities of leadership and character, or outstanding and unusual promise. The scholarship is awarded to a first-year student and is renewable for the undergraduate years.

The Lyman Scholarship, established by Frank L. Lyman, Jr. '43 and his wife, Julia, on the occasion of his 50th Reunion in 1993, is awarded to a student who is a member of the Religious Society of Friends or whose parents are members of the Religious Society of Friends, on the basis of need, and is renewable through the senior year.

The Leland S. MacPhail, Jr. Scholarship, given by Major League Baseball in recognition of 48 years of dedicated service by Leland S. MacPhail, Jr. '39, will be awarded annually to a deserving student on the basis of need and merit.

The Thomas B. McCabe Awards, established by Thomas B. McCabe '15, are awarded to entering students from the Delmarva Peninsula, and Delaware County, Pennsylvania. In making selections, the Committee places emphasis on ability, character, personality, and service to school and community. These awards provide a minimum annual grant of tuition, or a maximum to cover tuition, fees, room and board, depending on need. Candidates for the McCabe Awards must apply for admission to the College by December 15.

The Charlotte Goette '20 and Wallace M. McCurdy Scholarship is awarded to a first-year student on the basis of need and merit, and is renewable annually. It has been endowed by Charlotte McCurdy '20.

The Dorothy Shoemaker '29 and Hugh McDiarmid '30 Scholarship is awarded to a first-year

man or woman on the basis of merit and need and is renewable through the senior year. It is the gift of the McDiarmid family in commemoration of their close association with Swarthmore College.

The Helen Osler McKendree '23 Scholarship was created in 1998. The scholarship is awarded to a junior majoring in a foreign language or languages.

The Norman Meinkoth Scholarship, established by his friends and former students, to honor Dr. Norman A. Meinkoth, a member of the College faculty from 1947 to 1978, is awarded annually to a worthy student with an interest in the study of biological problems in a natural environment.

The Peter Mertz Scholarship is awarded to an entering first-year student outstanding in mental and physical vigor, who shows promise of spending these talents for the good of the college community and of the larger community outside. The award was established in 1955 by Harold, LuEsther and Joyce Mertz in memory of Peter Mertz, who was a member of the class of 1957. It is renewable for the undergraduate years.

The Mari Michener Scholarship provides financial support to four students on the basis of merit and need. It is the gift of James Michener '29.

The Hajime Mitarai Scholarship, established in 1995 by Eugene M. Lang '38 in memory of his close friend and the father of Tsuyoshi Mitarai '98, is awarded to students with financial need. Preference is given to students with international backgrounds.

The Margaret Moore Scholarship Fund provides scholarships to foreign students with a preference given to students of South Asian origin.

The Florence Eising Naumburg Scholarship, named in 1975 in honor of the mother of an alumna of the Class of 1943, is awarded to a student whose past performance gives evidence of intellectual attainment, leadership, and character, and who shows potential for future intellectual growth, creativity, and scholarship, and for being a contributor to the College and ultimately to society.

The Thomas S. '30 and Marian Hamming Nicely '30 Scholarship is awarded to a first-year student with need who shows promise of academic achievement, fine character, and athletic abil-

ity. Preference will be given to a person who has been on the varsity tennis, squash, racquets, golf, or swimming teams in high or preparatory schools.

The John H. Nixon Scholarship was established by John H. Nixon, Class of '35, to assist Third World students, especially those who plan to return to their country of origin.

The Edward L. Noyes '31 Scholarship has been endowed in his memory by his wife, Jean Walton Noyes '32, his three sons and his many friends. The scholarship is available to an incoming first-year student, with preference given to those from the southwest, especially Texas. It is awarded on the basis of need and merit to students with broad interests and is renewable through four years.

The Tory Parsons '63 Scholarship was established in 1991 in his memory by a member of the Class of 1964 to provide scholarship aid to students with demonstrated need.

The J. Roland Pennock Scholarships were established by Ann and Guerin Todd '38 in honor of J. Roland Pennock '27, Richter Professor Emeritus of Political Science. Income from this endowment is to be used to award four scholarships on the basis of merit and need, preferably to one scholar in each class.

The Winnifred Poland Pierce Scholarship Fund is awarded on the basis of merit and financial need and is renewable through the senior year.

The Cornelia Chapman and Nicholas O. Pittenger Scholarship, established by family and friends, is awarded to an incoming first-year man or woman who ranks high in scholarship, character, and personality and who has need for financial assistance.

Laurama Page Pixton '43 Scholarship provides financial assistance for foreign students studying at Swarthmore, with preference for those from the former Soviet Union and Eastern Europe. It is a gift of her brother Edward Page, Class of 1946.

The Anthony Beekman Pool Scholarship. This scholarship is awarded to an incoming first-year man of promise and intellectual curiosity. It is given in memory of Tony Pool of the Class of 1959.

The Richard '36 and Helen Shilcock Post '36 Scholarship, established in 1995 by Helen Shilcock Post '36, Bill '61 and Suzanne Rekate Post '65, Carl '66 and Margery Post Abbott '67,

Barbara Post Walton, Betsy Post Falconi, Richard W. '90 and Jennifer Austrian Post '90 and their families, is awarded to a well-rounded first-year student who demonstrates merit, need, and an interest in athletic endeavors. It is renewable through four years.

The Henry L. Price, Jr., M.D., '44 Scholarship in Natural Sciences was established in 1994 by Hal and Meme Price and is awarded to a student who has declared the intention to choose a major in the Division of Natural Sciences excluding engineering. It is awarded on the basis of merit and need and is renewable through the senior year. This scholarship is in memory of Dr. Price's parents Sara Millechamps Anderson and Henry Locher Price.

The Raruey-Chandra and Niyomsit Scholarships are given by Renoo Suvarnsit '47 in memory of his parents. They are given in alternate years: the Raruey-Chandra Scholarship to a woman for her senior year, and the Niyomsit Scholarship to a man for his senior year, who has high academic standing and real need for financial aid. Preference is given to a candidate who has divorced or deceased parents or a deceased mother or father.

The Byron T. Roberts Scholarship, endowed by his family in memory of Byron T. Roberts, '12, is awarded annually to an incoming student and is renewable for his or her years of study at Swarthmore.

The Louis N. Robinson Scholarship was established during the College's Centennial year by the family and friends of Louis N. Robinson. Mr. Robinson was for many years a member of the Swarthmore College faculty and founder of the Economics Discussion Group. A member of the junior or senior class who has demonstrated interest and ability in the study of Economics is chosen for this award.

The Edwin P. Rome Scholarship provides financial assistance to worthy students with need. It was established in memory of Edwin P. Rome '37 by his wife, Mrs. Rita Rome, and the William Penn Foundation on whose board he served.

The Alexis Rosenberg Scholarship Fund, established by The Alexis Rosenberg Foundation, provides aid for a first-year student. It is awarded annually to a worthy student who could not attend the College without such assistance.

The Ida and William Rosenthal Scholarship was

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established by Elizabeth Coleman '69 to be awarded to a student with need from a middle income family.

The Girard Bliss Ruddick '27 Scholarship is awarded to a junior on the basis of merit and need, with preference to an economics major. It is renewable in the senior year. The Marcia Perry Ruddick Cook '27 Scholarship is awarded to a junior on the basis of merit and need, with preference to an English Literature major, and is renewable for the senior year. Both scholarships are endowed by J. Perry Ruddick in memory of his parents.

The David Barker Rushmore Scholarship, established in honor of David Barker Rushmore, Class of 1894, by his niece Dorothea Rushmore Egan '24, is awarded annually to a worthy student who plans to major in Engineering or Economics.

The Katharine Scherman Scholarship is awarded to a student with a primary interest in the arts and the humanities, having special talents in these fields. Students with other special interests, however, will not be excluded from consideration. Awarded in honor of Katharine Scherman, of the Class of 1938, it is renewable for the full period of undergraduate study.

The Howard A. Schneiderman, Class of 1948, Scholarship, established in 1991 by his family, is awarded to a first-year student and is renewable through the senior year. Preference is given to students with interest in the biological sciences.

The Joe and Terry Shane Scholarship, created in honor of Joe Shane '25, who was Vice President of Swarthmore College's Alumni, Development, and Public Relations from 1950-1972, and his wife, Terry, who assisted him in countless ways in serving the College, was established by their son, Larry Shane '56, and his wife, Marty Porter Shane '57, in remembrance of Joe and Terry's warm friendship with generations of Swarthmore alumni. This award is made to a first-year student on the basis of merit and need. It is renewable through four years.

The Florence Creer Shepard '26 Scholarship, established by her husband, is awarded on the basis of high scholastic attainment, character, and personality.

The William C. and Barbara Tipping Sieck Scholarship is awarded annually to a student showing

distinction in academics, leadership qualities, and extracurricular activities, and who indicates an interest in a career in business.

The Nancy Baxter Skallerup Scholarship, established by her husband and children, is awarded to an incoming first-year student with financial need. It is renewable through four years.

The William W. Slocum, Jr. Scholarship fund established in 1981 by a member of the Class of 1943 is awarded to a deserving student on the basis of merit and need.

The Courtney C. Smith Scholarship is for students who best exemplify the characteristics of Swarthmore's Ninth President: intellect and intellectual courage, natural dignity, humane purpose, and capacity for leadership. Normally the award will be made to a member of the first-year class on the basis of merit and need. It is renewable during the undergraduate years. Holders of this scholarship gain access to a special file in the Friends Historical Library left by the scholarship's creator, the Class of 1957, inviting them to perpetuate the memory of this individual's sixteen years of stewardship of the College's affairs and his tragic death in its service.

The W.W. Smith Charitable Trust provides scholarships to students who qualify on the basis of need and merit.

The Harold E. and Ruth Calwell Snyder Pre-medical Scholarship is the gift of Harold E. Snyder, Class of 1929. It provides support up to full tuition and fees for junior or senior pre-medical students and is awarded on the basis of merit and need.

The Cindy Solomon Memorial Scholarship is awarded with preference to a young woman in need of financial assistance, and who has special talent in poetry or other creative and imaginative fields.

The Helen Solomon Scholarship is given in her memory by her son, Frank Solomon Jr. of the Class of 1950. It is awarded to a first-year student on the basis of merit and need and is renewable through the senior year.

The Babette S. Spiegel Scholarship Award, given in memory of Babette S. Spiegel, Class of 1933, is awarded to a student showing very great promise as a creative writer (in any literary form) who has need of financial assistance. The Department of English determines those eligible.

The Harry E. Sprogehl Scholarship was established in 1981 in memory of Harry E. Sprogehl '32, and in honor of his class's 50th reunion. It is awarded to a junior or senior with financial need who has a special interest in law or music.

C.V. Starr Scholarship Fund, established by The Starr Foundation as a memorial to its founder, provides scholarship assistance on the basis of merit and need.

The David Parks Steelman Scholarship Fund, established in his memory in 1990 by C. William '63 and Linda G. Steelman, is awarded annually to a deserving male or female student on the basis of merit and need, with a preference for someone showing a strong interest in athletics.

The Stella Steiner Scholarship, established in 1990 by Lisa A. Steiner '54, in honor of her mother, is awarded to a first-year student on the basis of merit and need. This scholarship is renewable through the senior year.

The Clarence K. Streit Scholarship is awarded to a student entering the junior or senior year and majoring in history. Preference is given to persons, outstanding in initiative and scholarship, who demonstrate a particular interest in American pre-Revolutionary War History. This scholarship honors Clarence K. Streit, author of *Union Now: A Proposal For An Atlantic Federal Union of the Free*, whose seminal ideas were made public in three Cooper Foundation lectures at Swarthmore.

The Katharine Bennett Tappen, Class of 1931, Memorial Scholarship, established in 1980 is awarded to a first-year student. The scholarship is renewable for four years at the discretion of the College. Preference is given to a resident of the Delmarva Peninsula.

The Newton E. Tarble Award, established by Newton E. Tarble of the Class of 1913, is granted to a first-year man who gives promise of leadership, ranks high in scholarship, character, and personality, and resides west of the Mississippi River or south of Springfield in the State of Illinois.

The Audrey Friedman Troy Scholarship, established by her husband, Melvin B. Troy '48, is awarded to a first-year man or woman. The scholarship is renewable through four years at the discretion of the College. In awarding the scholarship, prime consideration is given to the ability of the prospective scholar to profit from a Swarthmore education, and to be a contribu-

tor to the College and ultimately to society.

The Robert C. and Sue Thomas Turner Scholarship is awarded to a deserving student on the basis of merit and financial need.

The Vaughan-Berry Scholarship was established by Harold S. Berry '28 and Elizabeth Vaughan Berry '28 through life income gifts, to provide financial assistance to needy students.

The Stanley and Corinne Weithorn Scholarship Fund was established to provide financial assistance on the basis of need and merit.

The Elmer L. Winkler Scholarship Fund, established in 1980 by a member of the Class of 1952, is awarded annually to a deserving student on the basis of merit and need.

The Letitia M. Wolverton Scholarship Fund, given by Letitia M. Wolverton of the Class of 1913, provides scholarships for members of the junior and senior classes who have proved to be capable students and have need for financial assistance to complete their education at Swarthmore College.

The Frances '28 and John Worth '30 Scholarship was established by Frances Ramsey Worth in 1993 and is awarded to a first-year student with strong academic credentials and with financial need. The scholarship is renewable through the senior year.

The Harrison M. Wright Scholarship was created by friends, colleagues, and former students of Harrison M. Wright, Isaac H. Clothier Professor of History and International Relations, upon the occasion of his retirement from the College. The annual scholarship supports a student for a semester of study in Africa.

The Michael M. and Zelma K. Wynn Scholarship was established in 1983 by Kenneth R. Wynn '73 in honor of his mother and father. It is awarded annually to a student on the basis of need and merit.

The income from each of the following funds is awarded at the discretion of the College.

The Barcus Scholarship Fund

The Belville Scholarship

The Book and Key Scholarship Fund

The Leon Willard Briggs Scholarship Fund

The John S. Brod Scholarship

The Robert C. Brooks Scholarship Fund

The Chi Omega Scholarship

The Class of 1913 Scholarship Fund

Financial Aid

- The Class of 1914 Scholarship Fund*
The Class of 1915 Scholarship Fund
The Class of 1917 Scholarship Fund
The Class of 1925 Scholarship Fund
The Class of 1956 Scholarship Fund
The Susan P. Cobbs Scholarship
The Cochran Memorial Scholarship Fund
The Sarah Antrim Cole Scholarship Fund
The Charles A. Collins Scholarship Fund
The Stephanie Cooley '70 Scholarship
The Ellsworth F. Curtin Memorial Scholarship
The Delta Gamma Scholarship Fund
The George Ellsler Scholarship Fund
The J. Horace Ervien Scholarship Fund
The Howard S. and Gertrude P. Evans Scholarship Fund
The Eleanor Flexner Scholarship
The Joseph E. Gillingham Fund
The Mary Lippincott Griscom Scholarship
The Stella and Charles Gutman Foundation Scholarships
The Hadassah M. L. Holcombe Scholarship
The J. Philip Herrmann Scholarship
The A. Price Heusner Scholarship
The Rachel W. Hillborn Scholarship
The Aaron B. Ivins Scholarship
The William and Florence Ivins Scholarship
The George K. and Sallie K. Johnson Scholarship Fund
The Kappa Kappa Gamma Scholarship
The Jessie Stevenson Kovalenko Scholarship Fund
The Lafore Scholarship
The E. Hibberd Lawrence Scholarship Fund
The Thomas L. Leedom Scholarship Fund
The Sarah E. Lippincott Scholarship Fund
The Long Island Quarterly Meeting, N.Y., Scholarship
The Mary T. Longstreth Scholarship Fund
The Clara B. Marshall Scholarship Fund
The Edward Martin Scholarship Fund
The Franz H. Mautner Scholarship
The James E. Miller Scholarship
The Howard Osborn Scholarship Fund
The Harriet W. Paiste Fund
The Rogers Palmer Scholarships
The Susanna Haines '80 and Beulah Haines Parry Scholarship Fund
The T.H. Dudley Perkins Scholarship Fund
The Mary Coates Preston Scholarship Fund
The David L. Price Scholarship
The Robert Pyle Scholarship Fund
The George G. and Helen Gaskill Rathje '18 Scholarship
The Reader's Digest Foundation Endowed Scholarship Fund
The Fred C. and Jessie M. Reynolds Scholarship Fund
The Lily Tily Richards Scholarship
The Adele Mills Riley Memorial Scholarship
The Edith A. Runge Scholarship Fund
The Amelia Emhardt Sands Scholarship Fund
The William G. and Mary N. Serrill Honors Scholarship
The Clinton G. Shafer Scholarship
The Caroline Shero Scholarship
The Annie Shoemaker Scholarship
The Sarah W. Shreiner Scholarship
The Walter Frederick Sims Scholarship Fund
The Frank Solomon Memorial Scholarship Fund
The Mary Sproul Scholarship Fund
The Helen G. Stafford Scholarship Fund
The Francis Holmes Strozier Memorial Scholarship Fund
The Joseph T. Sullivan Scholarship Fund
The Phebe Anna Thorne Fund
The Titus Scholarships Fund
The Daniel Underhill Scholarship Fund
The William Hilles Ward Scholarships
The Deborah F. Wharton Scholarship Fund
The Thomas H. White Scholarship Fund
The Samuel Willets Scholarship Fund
The I.V. Williamson Scholarship
The Edward Clarkson Wilson and Elizabeth T. Wilson Scholarship Fund
The Mary Wood Scholarship Fund
The Roselynd Atherholt Wood '23 Fund



College Life

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STATEMENT OF STUDENT RIGHTS, RESPONSIBILITIES, AND CODE OF CONDUCT

Preamble

Under Objectives and Purposes of this publication it is stated that: "The purpose of Swarthmore College is to make its students more valuable human beings and more useful members of society. . . . Swarthmore seeks to help its students realize their fullest intellectual and personal potential combined with a deep sense of ethical and social concern." Although the College places great value on freedom of expression, it also recognizes the responsibility to protect the structures and values of an academic community. It is important, therefore, that students assume responsibility for helping to sustain an educational and social community where the rights of all are respected. This includes conforming their behavior to standards of conduct that are designed to protect the health, safety, dignity, and rights of all. The College community also has a responsibility to protect the possessions, property, and integrity of the institution as well as of individuals. The aim of both this Statement and the Student Judicial Procedures is to balance all these rights, responsibilities, and community values fairly and efficiently.

Swarthmore College policies and jurisdiction normally apply only to the conduct of matriculated students occurring on Swarthmore College property or at College-sanctioned events that take place off-campus. In situations in which both the complainant and accused are matriculated Swarthmore College students, however, College policies and jurisdiction may apply regardless of the location of the incident. Students should also realize that they have the responsibility to ensure that their guests do not violate College policies, rules, and regulations while visiting and that students may be subject to disciplinary action for misbehavior of their guests.

A complaint against a student may be made to the deans by a student, a Public Safety officer, a member of the College's faculty or staff, or a College department. If the alleged incident represents a violation of federal, state, or local law, the complainant also has the option of initiating proceedings in the criminal or civil court system regardless of whether a complaint

is filed within the College system.

The following is a summary and explanation of the rights, responsibilities, and rules governing student conduct at Swarthmore College. This Statement serves as a general framework and is not intended to provide an exhaustive list of all possible infractions. Students violating any of the following are subject to disciplinary action. All sanctions imposed by the judicial system must be obeyed or additional penalties will be levied. For a description of the College's judicial process, please see the section below on *Student Judicial System*.

1. Academic and Personal Integrity

Academic Freedom & Responsibility

Swarthmore College has long subscribed to the fundamental tenets of academic freedom articulated in the 1940 *Statement of Principles on Academic Freedom and Tenure* by the American Association of University Professors. This doctrine has been reiterated and amplified in the Association's 1970 *Statement on Freedom and Responsibility*. Swarthmore College adheres to the 1970 Statement, relevant portions of which are reproduced below. The complete texts of the Association's 1940 and 1970 statements may be found in AAUP publications: "Membership in the academic community imposes on students, faculty members, administrators, and trustees an obligation to respect the dignity of others, to acknowledge their right to express differing opinions, and to foster and defend intellectual honesty, freedom of inquiry and instruction, and free expression on and off the campus. The expression of dissent and the attempt to produce change, therefore, may not be carried out in ways which injure individuals or damage institutional facilities or disrupt the classes of one's teachers or colleagues. Speakers on campus must not only be protected from violence, but also be given an opportunity to be heard. Those who seek to call attention to grievances must not do so in ways that significantly impede the functions of the institution."

The College policy governing faculty obligation in the area of academic freedom and responsibility is found on page II-A-1 of the *Faculty Handbook*. If a student has a grievance against a faculty member that cannot be resolved directly through the faculty member involved, the student should take her or his con-

cerns to the department chair. If the grievance remains unresolved, the student should contact the Provost.

Academic Honesty

(Adopted by the Faculty May 19, 1984)

The *Faculty Handbook* states, "Academic honesty is a foundation of academic life." One of its tenets is that all scholars present as their work only that which is truly their own. For students this standard embraces all work submitted for academic purposes, not only examinations, laboratory reports, term papers, essays, etc., handed in for academic credit, but also papers written for seminar or for class discussion, whether graded or not. Transgressions of this principle are known as *plagiarism*, the use of another's ideas, language or thoughts and representation of them as one's own.

When an instructor suspects plagiarism in a piece of written work, the instructor should present the evidence to the student who submitted it. If the student is unable to remove the instructor's suspicion of guilt, the instructor is required to submit the case to the Dean for consideration by the College Judicial Committee. In its deliberations, the Committee considers the following to be evidence of plagiarism in a piece of writing: 1) the failure to put quotation marks around (or, when appropriate, to indent and to single-space) words, symbols, phrases, or sentences quoted verbatim from any source, whether published or not; 2) the failure to acknowledge one's use of reworded or restated material—even when loosely paraphrased; 3) the inclusion of another's data, ideas or arguments when not acknowledged by footnote and reference.

Writers may refer to a handbook on scholarly writing for information about correct citation procedures. The *MLA Handbook* is particularly useful since it also provides examples of plagiarism. Supplementary departmental regulations governing joint projects, etc., may be found on file in departmental offices. The informal nature of some writing may obviate the necessity of rigorously formal citation, but still requires honest attribution to original authors of all borrowed materials. Students should feel free to consult with instructors whenever there is doubt as to proper documentation.

Fear of being charged with plagiarism need not inhibit anyone from appropriately using

another's ideas or data in a piece of writing. Even direct quotation frequently serves as an effective device in developing an argument. Academic honesty requires only that writers properly acknowledge their debts to other authors at least by means of quotation marks, footnotes, and references, if not also with in-text phraseology like "Einstein argued in 1900 that..." or "As Melville implies in Chapter 3 of *Moby Dick*. ...". Such usage is fully within the tradition of forthright academic work.

Because plagiarism is considered so serious a transgression, it is the opinion of the faculty that for the first offense failure in the course and, as appropriate, suspension for a semester or deprivation of the degree in that year is suitable; for a second offense the penalty should normally be expulsion. Cases of alleged academic dishonesty are brought before the College Judicial Committee."

Submission of the Same Work in More than One Course

When submitting any work to an instructor for a course, it is assumed that the work was produced specifically for that course. Submission of the same work in more than one course without prior approval is prohibited. If the courses are being taken concurrently, approval of the professors for both courses is required. If a student wishes to submit a paper which was written for a course taken in a previous semester, the student need only obtain the permission of the professor teaching the current course involved.

Library/Educational Materials Ethics

Students may not hinder the educational opportunity of other students by behavior such as removing, hiding, or defacing educational materials.

Statement on Computing

Use of the Swarthmore College computer system and networks is governed by the general norms of responsible community conduct described in the student, faculty and staff handbooks, by local, state and federal laws, and by College policies specific to use of the computer systems and networks, which are described in the following sections.

Swarthmore College normally grants access to its computing network and systems to currently enrolled students, to current and emeritus faculty, and to currently employed staff. By

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users, this document refers to all who use the computers, networks, and peripherals owned or operated by the College, or who gain access to third party computers and networks through the College's system, whether these individuals have regular accounts or are system administrators.

1. Users of services operated by Swarthmore College have the following obligations and responsibilities:

a. To respect software copyright. The copying or use of copyrighted software in violation of vendor license requirements is strictly forbidden. Not only does such violation ("software piracy") wrongly appropriate the intellectual property of others, but it places the individual user and the College at risk of legal action.

b. To protect their accounts from unauthorized use by others. Users are responsible for all activities under their userid, and must take reasonable steps to insure that they alone, or some authorized person under their direct control, have access to the account.

c. To respect the integrity of other user's accounts. Individuals must not use another person's userid without express permission or attempt to decode passwords or to access information illegitimately. A system administrator is allowed to decode passwords as part of regular operations.

d. Not to send forged Email (mail sent under another user's name), or to read Email addressed to another user, for example, by accessing their electronic mailbox, or mail residing in system files. Potentially offensive electronic communication shall be considered as it would be if conveyed by other media.

e. To avoid excess use of shared resources, whether through monopolizing systems, overloading networks, misusing printer or other resources, or sending "junk mail." The Computing Center will from time to time issue guidelines to the use of shared resources. Since Swarthmore College provides and maintains these systems to further its academic mission, using computers for non-academic purposes has low priority.

f. To avoid engaging in any activity that may reasonably be expected to be harmful to the systems operated by the College or a third party or to information stored upon them. When a system vulnerability is discovered, users are ex-

pected to report it to a system administrator.

Violations of these rules which come to the attention of The Computing Center will be referred as appropriate to the offices of the Dean, Provost or Personnel. These offices will consider violations using information provided by the Computing Center. In cases of violation of "f" above, the Computing Center may temporarily withhold services from students, faculty or staff. The case will then be referred in a timely manner to the appropriate College authorities.

2. Swarthmore College for its part assures users that College personnel are obliged:

a. To grant personal files on College computers (for example, files in a user's account) the same degree of privacy as personal files in College-assigned space in an office, lab or dormitory (for example, files in a student's desk); to grant private communications via computer the same degree of protection as private communications in other media; and to treat an article on a USENET newsgroup or other bulletin board analogously to a poster or a College publication.

b. To take reasonable steps to protect users from unauthorized entry into their accounts or files, whether by other users or by system administrators, except in instances where a system-related problem requires such entry.

c. To take reasonable steps to prevent the dissemination of information concerning individual user activities, for example, records of users entering a bulletin board network.

Acknowledgements: Some of the above rules and guidelines have been adapted from earlier statements in the Swarthmore College *Student Handbook*, and from materials made available from the Electronic Frontier Foundation, including the policy statements of the American Association of University Professors, Columbia University, the University of Delaware, the University of Southern California at Los Angeles, and Virginia Tech University.

False Information, Misrepresentation, and Identification

A student may not knowingly provide false information or make misrepresentation to any College office. Students are obligated to provide College personnel with accurate identification upon request.

Forgery, Fraud, and Unauthorized Possession

In addition to the forgery, alteration, or unauthorized possession or use of College documents, records, or instruments of identification, forged communications (paper or electronic mail) are prohibited.

2. Violence, Assault, Intimidation, and Harassment

(for sexual violations see Sexual Misconduct)

Swarthmore College seeks to maintain an environment of mutual respect among all its members. All forms of violence, assault, intimidation, and harassment, including that based on sex, race, color, age, religion, national origin, sexual preference, or handicap, undermine the basis for such respect and violate the sense of community vital to the College's educational enterprise. This statement of policy should not be taken to supersede the College's commitment to academic freedom, which it hereby reaffirms. The reasoned expression of different views plays a particularly vital part in a college community. Freedom of expression, fundamental to an exchange of views, carries with it corollary responsibilities equally basic to reasoned debate.

Violence and Assault

Students may not engage in physical violence against others. Those who do will be subject to serious sanctions.

Intimidation

Verbal, written, or electronic threats of violence or other threatening behavior directed toward another person or group that reasonably leads the person or persons in the group to fear for their physical well-being constitutes intimidation and is prohibited. Anyone who attempts to use intimidation or retaliation against someone who reports an incident, brings a complaint, or participates in an investigation in an attempt to influence the judicial process will be subject to serious sanctions.

Harassment

The College seeks to sustain an environment

in which harassment has no place. Those who harass others will be subject to serious sanctions.

Definition, Principles, and Criteria: Harassment can take many forms, and it needs to be emphasized that harassment can be and often is non-physical, including words, pictures, gestures, and other forms of expression. To count as harassment, such expression must be reasonably regarded as (a) taunting¹, vilifying², or degrading³ whether (b) directed at individuals or groups [subject to the clarification and qualification below] and (c) where reasonable people may suppose that such expression harms its target(s) by substantially interfering with their educational opportunities, peaceful enjoyment of residence and community, or terms of employment. Further, to count as harassment subject to possible formal grievance procedures, such expression must (d) be taken *either* with the intent to interfere with the protected interests mentioned in (c), above, or with reckless disregard to the nature of the conduct. Such intent or recklessness must be inferred from all the circumstances. Finally (e), such expression must be repeated and persistent. To be "repeated and persistent," the offending conduct must have been brought to the attention of the defendant (though not necessarily by the complainant), be of the same kind, and repeated. There are two reasons for adding (e): first, the College wishes to have the opportunity to educate those who may not realize that certain expression constitutes harassment; second, by requiring that the expression be repeated and persistent, the College helps establish intent or recklessness. However: (f) before any expression can be considered for possible formal grievance procedures, it must be clear that no substantial free expression interests are threatened by bringing a formal charge of harassing expression. This strict criterion for possible formal grievance procedures must be imposed to insure that the College does nothing that would tend to diminish free expression or compromise principles of academic freedom in

1 Derisive, mocking, ridiculing, or jeering expression.

2 Forceful defaming or degrading expression with intent to make the target of the offending expression vile or shameful, or recklessly

disregarding the effects of one's expression in these respects.

3 Subjecting one to public shame that normally cause feelings of inferiority or loss of self-respect.

the vigorous and often contentious examination and criticism of ideas, works of art, and political activity that marks Swarthmore College.

Because *groups* have been included in (b), above, the following clarification and qualification is in order. If expression that would be regarded as harassing if directed at an individual is directed at a group—where no individuals are specifically named or referred to as targets—any member of that group will have an adjudicable complaint *only* if it can be established that a reasonable person would regard that offending expression as harassing each and every member of the group as *individuals*.

Stalking

Stalking is a form of harassment, which, following the PA Criminal Code, occurs when a person engages in a course of conduct or repeatedly commits acts toward another person, including following the person without proper authority, under circumstances that demonstrate either of the following: placing the person in reasonable fear of bodily injury; or reasonably causing substantial emotional distress to the person.

3. Sexual Misconduct

Sexual misconduct represents a continuum of behaviors ranging from physical sexual assault and abuse to sexual harassment and intimidation and is a serious violation of the Colleges code of conduct. Both women and men can be subject to and can be capable of sexual misconduct. It can occur between two people whether or not they are in a relationship in which one has power over the other, or are of different sexes.

Charges of sexual misconduct may be handled according to either informal or formal procedures. Regardless of whether or not options for resolution are pursued within the College system, complainants always have the option of filing charges in civil or criminal court. It is important to note that discussing concerns with or seeking clarification or support from the Gender Education Advisor, a dean, or others does not obligate a person to file a formal complaint initiating judicial procedures. The Gender Education Advisor will register each request for assistance in resolving a case involving charges of sexual misconduct, whether formal or informal. These records will be kept confidential to the extent permitted by law.

Sexual Assault and Abuse

Students are prohibited from engaging in sexual assault or abuse of any kind.

Definition: Sexual assault is defined as any sexual contact that occurs without the consent of the other person. Specifically, it is intentional physical contact with an intimate part of the body or with clothes covering intimate body parts without the consent of the person touched. Sexual assault includes but is not limited to sexual penetration of an unwilling persons genital, anal, or oral openings; touching an unwilling persons intimate parts such as genitalia, groin, breasts, lips, buttocks or the clothes covering them; or forcing an unwilling person to touch another persons intimate parts or clothes covering them. When sexual assault occurs repeatedly between individuals, it is referred to as sexual abuse.

Consent: Students have the responsibility to ensure that any sexual interaction occurs only with mutual consent. If a person indicates that she/he does not want sexual contact then any further sexual contact is considered to be without the persons consent. If the person has agreed to sexual interaction, she/he has the right to change her/his mind and indicate that she/he no longer wants to continue the interaction. A person has the right to indicate she/he does not want any further sexual contact no matter how much sexual interaction has already taken place. Valid consent cannot be obtained from someone who is asleep, unconscious, coerced, or is otherwise unable to give informed, free, and considered consent. It must be emphasized that the consumption of alcohol and other drugs may substantially impair judgment and the ability to give consent. Those who willingly permit themselves to become impaired by alcohol or other drugs may be putting themselves at greater risk, but this impaired state provides no defense for those who take advantage of people whose judgment and control are impaired.

Sexual Harassment

The following definition is based on that formulated by the Federal Equal Opportunity Commission. Sexual harassment, a form of discrimination based on sex, gender, or sexual orientation, clearly endangers the environment of mutual respect and is prohibited. Because behavior that constitutes sexual harassment is a

violation of federal law (Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972), any individual who feels that she or he has been subjected to sexual harassment has the right to initiate legal proceedings in criminal or civil court in addition to or in lieu of a complaint pursuant to this policy.

Definition: Sexual harassment is of two basic types: a. any action, verbal expression, usually repeated or persistent, or series of actions or expressions that have either the intent, or are reasonably perceived as having the effect, of creating an intimidating, hostile, or demeaning educational, employment, or living environment for a student or College employee, by focusing on that person's gender. A hostile environment is defined as one that interferes with the ability to learn, exist in living conditions, work (if employed by the College), or have access and opportunity to participate in all and any aspect of campus life. (Harassment creating a hostile environment); b. any action in which submission to conduct of a sexual nature is made either explicitly or implicitly a term or condition of an individual's education or employment, or submission to or rejection of such conduct is used as the basis for academic or employment decisions affecting that individual. (Quid Pro Quo Harassment).

Because at Swarthmore it is not unusual for students to supervise other students, or for students to have actual or perceived power or influence over another student's academic performance (e.g., student graders, student laboratory assistants, and student writing associates), there can exist a power imbalance between students that makes it possible for quid pro quo harassment to occur between them.

Descriptions: Sexually harassing behaviors differ in type and severity and can range from subtle verbal harassment to unwelcome physical contact. Sexual harassment includes but is not limited to: a. unwelcome verbal or physical advances, persistent leers, lewd comments; b. the persistent use of irrelevant references that insult or degrade a person's gender, or the use of sex stereotypes to insult or degrade; c. the use by a person in authority of his/her position to coerce another person to do something of a sexual nature that she/he would not otherwise do. Coercion need not involve physical force.

Scope and Resolution: There is a wide range of

behaviors that falls within the general definition of sexual harassment and many differing notions of what behaviors are and are not acceptable. Key factors that determine instances of sexual harassment are that the behavior is unwelcome, is gender-based, and is reasonably perceived as offensive and objectionable. Such behavior need not produce or threaten some tangible loss to the receiver in order to be deemed harassment. If it is unclear that the behavior constitutes harassment, a person who thinks s/he has been harassed should not spend considerable time struggling alone with this issue. Students are strongly encouraged to bring their issues to the Gender Education Advisor, a dean, or others trained in this area for support, clarification, and to discuss options for informal resolution or formal adjudication.

In cases in which the harassment is subtle, it cannot be assumed that the offending person is aware of the way in which his or her behavior has been interpreted. There are a number of ways to make a person aware that his/her behavior constitutes sexual harassment. The grievant is never under any obligation to take any steps that would cause him/her to come into contact with the harasser in ways he/she is unwilling to do. Instead, the grievant can consider all the informal and formal means open to him/her for resolution and choose what seems most useful and workable in his/her particular case. The grievant must also weigh, however, the fact that without in some way being made aware of his/her actions, the harasser may continue the offensive behavior. In the most serious instances of sexual harassment, it is unreasonable to expect grievants to confront their perceived harassers; in these cases the grievant should enlist the help of a trained third party such as the Gender Education Advisor, a dean, or another person trained in this area.

It is important to remember that any member of the community can be guilty of sexually harassing any other member regardless of position of authority or status. Although students have often found it difficult to come forward when the perceived harasser is in a position of authority or is threatening, procedures are in place to respond and to provide support throughout the resolution process.

Support

Support is available through the Gender Education Advisor, a group of trained faculty

and staff members comprising the response team, and the deans for students who feel that they have been subjected to any form of sexual misconduct. Consultation with any of these individuals in no way limits a student's options for resolution nor commits the student to a particular course of action. The College also provides support when requested through the Deans Office to those students charged with sexual misconduct. There are specific rights for complainants of sexual misconduct and for those students accused of sexual misconduct; these rights are listed in detail in the Student Handbook. In addition, students are encouraged to discuss their concerns with a dean when deciding whether to file a formal complaint.

Related Policies

The College also has sexual misconduct policies as they relate to staff-student behavior and faculty-student behavior. The College policy governing staff and the related grievance procedure can be found in the Staff Handbook. The College policy governing faculty and the related grievance procedure can be found in the Faculty Handbook.

4. Actions Potentially Injurious to Oneself or Others

Alcohol and Other Drugs

The possession and use of alcoholic beverages on the campus are regulated by Federal, State, and local law and are limited to those areas of the campus specified by Student Council and the Dean. The observance of moderation and decorum with respect to drink is a student obligation. In addition to accountability for specific behavior and guidelines described in the College policy on alcohol and other drugs, it is important to note that being under the influence of alcohol or other drugs is not an excuse for violation of the *Statement of Student Rights, Responsibilities, and Code of Conduct* and does not reduce a student's accountability. For a complete description of the College's alcoholic beverage policy guidelines, please see the section in the *Student Handbook*.

The use, possession, or distribution of injurious drugs or narcotics without the specific recommendation of a physician and knowledge of the deans subjects a student to possible suspension or expulsion.

Smoking

Smoking is prohibited in all public spaces throughout the College: meeting rooms, lounges, offices, and halls. A \$25 fine will be charged for violating this policy, and students can be removed from non-smoking College housing if they smoke in rooms on non-smoking halls. Smoking is allowed outdoors and in the student's room (in certain residence halls), provided that the door remains closed.

Climbing on College Buildings or Structures

Climbing on any College building, or being present on building roofs is not allowed. In unusual circumstances, arrangements to climb predesignated locations, may be coordinated through the Department of Public Safety.

Fire Safety Equipment and Alarms

Tampering or interference with, as well as destruction or misuse of, fire safety and fire prevention equipment is prohibited and is a violation of state law. An automatic fine of \$125 for each piece of equipment plus the cost of replacement of equipment is charged to any student violating this regulation, and further disciplinary action may be taken. Any student who causes an alarm to be set off for improper purposes is liable for the expenses incurred by the fire department(s) in responding to the alarm. If no individuals accept responsibility when a violation of this policy occurs in a residence hall, all residents of that residence hall are subject to fines and charges for costs incurred by the College and/or fire department(s).

Firearms; Fireworks

No student may possess or use a firearm on Swarthmore College property or its environs. Firearms, including rifles, shotguns, handguns, air guns, and gas-powered guns and all ammunition or hand-loading equipment and supplies for the same, are not allowed in any student residence or in any College building. Requests for exceptions must be made to the Dean. No student may possess or use fireworks on Swarthmore College property or its environs.

Reckless Conduct

Conduct which places oneself or another in imminent danger of bodily harm is prohibited. The standard as to what constitutes imminent danger is solely at the discretion of the Dean and/or the judicial body hearing the case.

5. College and Personal Property

Illegal Entry

Unauthorized entry into or presence within enclosed and/or posted College buildings or areas, including student rooms or offices, even when unlocked, is prohibited and may subject a student to fines and other sanctions.

Locks and Keys

Tampering with locks to College buildings, unauthorized possession or use of College keys, and alteration or duplication of College keys is against college policy.

Theft or Damage

Theft and negligent or intentional damage to personal or College property will subject a student to paying for the repair or replacement of the damaged property as well as to disciplinary action. In the event that damage occurs in a residence hall for which no one assumes responsibility, payment for damages will be divided equally among all residents of that hall. For damage that occurs during a student event in a space other than a residence hall and for which no individual student(s) accept(s) responsibility, the sponsoring students and/or organization will be held accountable for the money for replacement or repair of the damaged property and may be subject to further disciplinary action.

Parking

No student may park an automobile on College property without permission from the Car Authorization Committee, a student-administration group.

6. Guests

Friends of Swarthmore students are welcome on campus. If a guest of a student will be staying in a residence hall over night, the Resident Assistant and the Housekeeper must be notified. A guest is not permitted to stay in a residence hall more than four consecutive nights. Requests for exceptions must be made to the Director of Residential Life.

Student hosts are responsible for the conduct of their guests on campus and will be held accountable for any violation of the code of conduct or other rules of the College committed by a guest.

7. Disorderly Conduct

Students at Swarthmore College have the right to express their views, feelings, and beliefs in-

side and outside the classroom and to support causes publicly, including by demonstrations and other means.

These freedoms of expression extend so far as conduct does not impinge on the rights of other members of the community or the orderly and essential operations of the college. Disorderly conduct is not permitted.

Violation of the orderly operation of the college includes, but is not limited to: 1. Excessive noise, noise, once identified, which interferes with classes, College offices, dorm neighbors, or other campus and community activities; 2. Unauthorized entry into or occupation of a private work area; 3. Conduct that restricts or prevents faculty or staff from performing their duties; 4. Failure to maintain clear passage into or out of any college building or passageway.

8. Violation of Local, State, or Federal Law

Violation of the laws of any jurisdiction, whether local, state, federal or (when on foreign study) foreign, may at the discretion of the Dean subject a student to College disciplinary action. A pending appeal of a conviction shall not affect the application of this rule.

STUDENT JUDICIAL SYSTEM

The formal judicial system at Swarthmore College has two main components: 1) adjudication by individual deans of minor infractions of College regulations, where a finding of guilt would result in a sanction less severe than suspension; and 2) adjudication by the College Judicial Committee of serious infractions of College regulations, including all formal charges of academic dishonesty, assault, harassment, or sexual misconduct. The College Judicial Committee is composed of faculty, staff, and administrators who have undergone training for their role.

In all cases of formal adjudication, whether by a dean or by the College Judicial Committee, the deans will keep records of the violation(s) and of the sanction(s) imposed on a student. Sanctions are cumulative, increasing in severity for repeat offenders. Notational sanctions are recorded permanently on the back of the students record card but do not appear on the face of the academic record. Therefore an offi-

cial transcript of an academic record, which is a copy of the face of the record card, does not reflect notational sanctions. Non-notational sanctions are not so recorded, but are entered into the student's personal file as a separate letter which is destroyed at the time of the student's graduation.

These formal procedures are separate from the various informal methods of conflict resolution available such as facilitated discussion by a dean or other trained facilitators, or mediation, a non-adversarial method of resolving interpersonal disputes. It is important to remember that all possible avenues of conflict resolution be considered thoroughly when deciding upon a course of action. A more complete description of the judicial system is available from the Office of the Dean or in the *Student Handbook*.

HOUSING

Swarthmore is primarily a residential college, conducted on the assumption that the close association of students and instructors is an important element in education. Most students live in College residence halls, which include coeducational housing as well as single sex dormitories and sections. New students are required to live in the residence halls and are therefore guaranteed College housing. In the event of a housing shortage, priority is given to seniors, followed by juniors and, finally, by sophomores. Many members of the faculty live on or near the campus, and they are readily accessible to students.

Residence Halls

Twelve residence halls, ranging in capacity from 21 to 214 students, offer a diversity of housing styles. Several of the residence halls are a 5-15 minute walk to the center of campus. These residence halls include: Woolman House; Dana and Hallowell Halls; the upper floors in the wings of Parrish Hall; Wharton Hall, named in honor of its donor, Joseph Wharton, at one time President of the Board of Managers; Palmer, Pittinger, and Roberts Halls on South Chester Road; one building on the Mary Lyon School property; Worth Hall, the gift of William P. and J. Sharples Worth, as a memorial to their parents; Willets Hall, made possible largely by a bequest from Phebe

Seaman, and named in honor of her mother and aunts; and Mertz Hall, the gift of Harold and Esther Mertz.

About eighty-five percent of residence hall areas are designated as coeducational housing either by floor, section, or entire building; the remaining areas are reserved for single-sex housing. In these single-sex sections, students may determine their own visitation hours up to and including twenty-four-hour visitation.

First-year students are assigned to rooms by the Deans. Efforts are made to follow the preferences indicated, and to accommodate special needs, such as documented disabilities. Other students choose their rooms in an order determined by lot or by invoking special options—among these are block housing, allowing friends to apply as a group for a section of a particular hall. There is also the opportunity to reside at neighboring Bryn Mawr and Haverford Colleges in a cross-campus housing exchange that proceeds on a matched one-for-one basis. First- and second-year students typically reside in one-room doubles while juniors and seniors have a wider selection of room types. All students are expected to occupy the rooms to which they are assigned or which they have selected through the regular room choosing process unless authorized by the Deans to move. Permission must also be obtained from the Deans to reside outside College housing.

Resident Assistants, selected from the junior and senior classes, are assigned to each of the residence hall sections. These leaders help catalog activities for students, serve as support advisers to their hallmates, and help enforce College rules for the comfort and safety of the residents.

Residence halls remain open during October, Thanksgiving, and Spring breaks but are closed to student occupancy during winter vacation. No meals are served during October and Spring breaks. At the end of the fall semester students are expected to vacate their rooms within 24 hours after their last scheduled examinations. Freshmen, sophomores, and juniors are expected to leave immediately after their last examination in the spring so that their rooms may be prepared for use by Commencement visitors. Storage areas are provided in each residence hall plus a limited-access storage room for valuables.

The insurance program for the College is designed to provide protection for College property and does not include the property of students or others. Students and their parents are strongly urged to review their insurance program in order to be sure that coverage is extended to include personal effects while at college.

More detailed housing rules and regulations are found in the *Student Handbook*, updated and distributed each year, and in the *Guide to the Housing Lottery* published before the spring housing lottery.

Sharples Dining Hall

All students living on campus are required to subscribe to the College board plan for meals in the Philip T. Sharples Dining Hall. Students living off campus may purchase the board plan if they wish. Within the contracted 20 meal program, each student has access to 3 admissions to Sharples Dining Hall Monday through Saturday and 2 admissions on Sunday, based on our weekly meal programming. Dining Services offers a 14 meal plan with a \$100 declining balance per semester for sophomores, juniors and seniors. There are 14 meals offered per week which can be used at Sharples for a meal or Essie Mae's in Tarbles in exchange for meal credit. The \$100 per semester declining balance can be used as cash at Sharples, Essie Mae's or the Cappuccino Bar at Kohlberg. If you do not use the \$100 in a semester, there is no refund or credit.

Although an effort is made to meet the dietary needs of all students, not all special requirements can be accommodated; permission to reside off campus after their first year at Swarthmore will be extended to students not able to participate in the board plan. The dining hall is closed during the fall, winter, and spring breaks.

SOCIAL CENTERS

Tarble Social Center

Through the original generosity of Newton E. Tarble of the Class of 1913 and his widow, Louise A. Tarble, the reconstructed Tarble Social Center in Clothier Memorial opened in April of 1986. The facility includes recreational areas, a snack bar, lounge, student activities

offices, a multi-purpose performance space as well as the bookstore. Under the leadership of a Student Activities Coordinator, student co-directors, and the Social Affairs Committee, many major social activities (parties, concerts, plays, etc.) are held in Tarble.

Other Centers

The Women's Resource Center (WRC) is a space open to all women on campus. It is organized and run by a student board of directors to bring together women of the community with multiple interests and concerns. The resources of the center include a library, kitchen, various meeting spaces, computer, and phone. The WRC also sponsors events throughout the year which are open to any member of the College community.

The Black Cultural Center, located in the Caroline Hadley Robinson House, provides a library, class room, computer room, tv lounge, kitchen, all-purpose room, a living room/gallery, two study rooms and administrative offices. The Center offers programming and activities designed to stimulate and sustain the cultural, intellectual and social growth of Swarthmore's Black students and community. Further, the Center functions as a catalyst for change and support to the College's effort to achieve pluralism. The Center's programs are open to all members of the College community. The Center and its programs are guided by the Director, Tim Sams, with the assistance of a committee of Black students, faculty, and administrators.

The Intercultural Center is a multipurpose center devoted to developing greater awareness of Asian/Asian American, Latino/Hispanic, Gay/Lesbian/Bisexual contributions to Swarthmore College as well as the broader society. The IC provides a supportive environment where students are welcomed to discuss and understand the educational, political, and social concerns that affect their groups. The IC fosters the education of its members and the wider community about cultural, ethnic, class, gender and sexual orientation differences. Through co-sponsoring programs and building alliances with the administration, other campus groups and departments, the Intercultural Center increases diversity and respect for differences at all levels of campus life. The Intercultural Center provides academic resources, support services and programming that address the

needs of students based in the IC and the entire college community.

The director, interns and associate interns are responsible for the Center's programming and operational functions. The Intercultural Center is located in the far southern corner of Tarble-in-Clothier. The Center is open Monday through Sunday, 8:30 a.m. to midnight. To reach the Intercultural Center director or any of the three organizations, please call (610) 328-7350.

Adjunct Centers. There are two fraternities at Swarthmore: Delta Upsilon, affiliated with a national organization, and Phi Omicron Psi, a local association. The fraternities are student organizations considered adjuncts to the College social program; they receive no College or Student Activities funds. The fraternities, Delta Upsilon and Phi Omicron Psi, maintain separate lodges on campus that they rent from the College. The lodges do not contain dormitory accommodations or eating facilities. New members usually join fraternities after at least one semester at the College. In recent years about seven percent of male students have decided to affiliate with one of the fraternities.

RELIGIOUS ADVISORS

Religious Advisors are located in the Interfaith Center in Bond Hall and currently consist of Jewish, Catholic and Protestant professionals. The Advisors and the Interfaith Center provide members of the Swarthmore community opportunities and resources, in an atmosphere free from the dynamics of persuasion, in which they can explore a variety of spiritual, ethical and moral meanings, pursue religious and cultural identities and engage in interfaith education and dialogue. The Center is comprised of offices, a large Common Worship Room, and a private Meditation Room.

Student groups of many faiths also exist for the purpose of studying religious texts, participating in community service projects, and exploring common concerns of religious faith, spirituality, and culture.

Various services are available on campus, and area religious communities welcome Swarth-

more students.

HEALTH

Worth Health Center

The Worth Health Center, a gift of the Worth family in memory of William Penn Worth and Caroline Hallowell, houses offices of the nurses, consulting physicians, out-patient treatment facilities, offices of Psychological Services staff, and rooms for students who require in-patient care. Psychological Services is administered separately from the Health Service and is housed in the North Wing of Worth Health Center. Health and Psychological Services open with the arrival of the first year class in the fall and close for the winter break and for the summer following commencement in the spring. Students must make their own arrangements for health and psychological care when the Health Center is closed. The College contracts with the Crozer Keystone Health System for physician services. Should in-hospital treatment be indicated, one of these consultant physicians will oversee the care if the student is admitted to Crozer Chester Medical Center, a medical school affiliated teaching hospital.

The medical facilities of the College are available to students who are ill or who are injured in athletic activities or otherwise, but the College cannot assume additional financial responsibility for medical, surgical, or psychological expenses which are not covered by an individual's health insurance. The College no longer provides the minimal coverage for all students it has in the past. We expect most students to be insured through family or other plans. For those who have no health insurance, we offer a new and more comprehensive plan at a cost of \$340. Students on financial aid may have the cost of the premium defrayed. Please remember that students and family are responsible for medical expenses incurred while students are enrolled at college. Students who have no insurance, or students with insurers who have no local office or arrangements with local HMOs, do not provide for emergency and urgent care locally, do not cover hospital admissions locally, or do not provide coverage while studying abroad, should enroll in the College Plan.

The College provides health insurance for students who are actively participating in inter-collegiate and club sports. For further information please consult the insurance leaflet mailed to all students at the beginning of each academic year or the Health Center administrative assistant.

Health Services

Physicians and nurse practitioners hold hours every weekday at the College, where students may consult them without charge. Students should report any illness to the Health Center staff but are free to seek treatment at another facility if they prefer to do so. Also, the Health Service staff are willing to coordinate care with personal health care providers.

As a part of the matriculation process each student must submit a brief medical history and health certificate prepared by the family physician on a form supplied by the College. Pertinent information about such matters as medical problems, handicaps, allergies, medications, or psychiatric disturbances will be especially valuable to the College Health Service in assisting each student. All this information will be kept confidential.

Each student is allowed ten days in-patient care in the Health Center per term without charge. Students suffering from communicable disease such as chicken pox may not remain in their residence hall room and therefore must stay in the Health Center or go home for the period of their illness. Ordinary medications are furnished without cost up to a total of \$300.00 per semester. A charge is made for special medicines and immunizations, certain laboratory tests, and transportation when necessary to local hospitals.

The Health Center staff cooperates closely with the Department of Physical Education and Athletics. Recommendations for limited activity may be made for those students with physical handicaps. Rarely are students excused entirely from the requirements of the Physical Education Department because adaptive programs are offered.

Psychological Services

Services for students include counseling and psychotherapy, after hours emergency-on-call availability, consultation regarding the use of psychiatric drugs or other concerns, and educational talks and workshops. Psychological

Services participates in training Resident Assistants and provides consultation to staff, faculty, and parents.

The staff of Psychological Services represents a diverse group of psychological, social work, and psychiatric professionals. The director and staff are all part-time but collectively provide regular appointment times Monday through Friday. Students may be referred to outside mental health practitioners at their request or when long-term or highly specialized services are needed.

We maintain a strict policy of confidentiality except where there may be an imminent threat to life or safety.

Requests for service may be made in person or by phone (x8059) between 8:30 am and 4:30 pm, Monday through Friday. In the event of an after-hours emergency, contact the Health Center (x8058) or Public Safety (x8333).

Information regarding readmission after withdrawal for health related reasons may be found in the section on Student Leaves of Absence, Withdrawal, and Readmission, page 71.

For more detailed information about our services, please check our pages on the World Wide Web @<http://www.swarthmore.edu/Admin/health/>.

STUDENT ADVISING

Each first-year student is assigned to a faculty member or administrator who acts as course adviser until this responsibility falls to the chair of the student's major department at the end of the sophomore year. Requests for a change of adviser should be addressed to the Associate Dean and will be freely granted, subject only to equity in the number of advisees assigned to individual faculty members.

The Deans hold overall responsibility for the advising system. They are themselves available to all students for advice on any academic or personal matter, and for assistance with special needs, such as those arising from physical disabilities.

Career Planning and Placement

The Career Planning and Placement Office works with students to help them develop knowledge of themselves and of careers, to ad-

vance their career planning and decision-making abilities, and to help them develop job-finding and application skills. Individual counseling sessions and group workshops are designed to help students expand their career options through exploration of their values, skills, interests, abilities, and experiences. Programs are open to students in all classes and are developmental in nature.

Career exploration and experiential education are encouraged during summer internships and jobs, during a semester or year off, and during the school year. Students taking a leave of absence from Swarthmore can participate in the College Venture Program, which assists undergraduates taking time off from school in finding worthwhile employment during their time away. Assistance is provided in helping students locate and secure appropriate jobs, internships, and volunteer opportunities, and efforts are made to help students learn the most they can from these experiences. Sophomore and junior students in particular are encouraged to test options by participating in the Extern Program. This program provides on-site experience in a variety of career fields by pairing students with an alumnus/a to work on a mutually planned task during one or more weeks of vacation.

Additional help is provided through career information panels, on-site field trips, workshops on topics such as resume writing and cover letter writing, interviewing skills, and job search techniques. The office cooperates with the Alumni Office, the Alumni Association, and the Parents Council to help put students in touch with a wide network of people who can be of assistance to them. The Career Resources Library includes many publications concerning all stages of the job search process. The office hosts on-campus recruiting by representatives from business, industry, government, non-profit organizations, and graduate and professional schools. Notices of job vacancies are collected, posted, and included in the office's newsletter. Credential files are compiled for interested students and alumni to be sent to prospective employers and graduate admissions committees.

Academic Support

A program of academic support is available to help all students with difficulties they might encounter in their courses. Recent innovations include a Student Academic Mentoring pro-

gram open especially to first-year students as well as upperclass students, and a January Academic Skills Workshop. Additional programs include time management workshops; test-taking workshops; special review sections and clinics attached to introductory courses in the natural sciences, philosophy, and economics; a mathematics lab; an expository writing course; and a reading and study skills workshop. These programs are overseen by the Deans in cooperation with the academic departments. There are no fees required for any of these supportive services.

To meet the needs of writers who would like to get assistance or feedback, a Writing Center has been established. The Center is staffed by Writing Associates, students trained to assist their peers with all stages of the writing process. The Center is located in Trotter Hall and operates on a drop-in basis. Writing Associates are assigned on a regular basis to selected courses.

STATEMENT OF SECURITY POLICIES AND PROCEDURES

Swarthmore College is a coeducational institution founded in 1864 by members of the Religious Society of Friends. It occupies approximately 300 acres of privately owned land adjacent to the borough of Swarthmore in Delaware County, Pennsylvania. There were 1,369 undergraduate students enrolled for the 1997/98 academic year with approximately 1,230 occupying college housing. Approximately 660 non-student personnel are employed on campus either in a part-time or full-time capacity.

The Department of Public Safety is primarily responsible for the overall security of the campus. Its mission is to "protect persons and property, to preserve the peace, to deter crime, to apprehend criminal offenders, to recover lost and stolen property, to perform services as required, to enforce appropriate college regulations, and to maintain a sense of community security and confidence in the department." It endeavors to accomplish this task through a department comprised of a Director, Assistant Director, Lieutenant, two Sergeants, one Corporal, six full-time and four part-time pa-

trol officers. All full-time patrol officers undergo a thorough background check, psychological screening and physical examination before hiring. They are subsequently sworn in as Special Officers after completing a recognized Pennsylvania State Police Training Academy course for Municipal Police Officers. These officers may exercise full police powers on Swarthmore College property. Local jurisdiction is shared with Swarthmore Borough Police Department with whom a close working relationship is maintained. Campus officers also enforce college rules and regulations. Swarthmore College is considered private property and trespassers are escorted off campus or arrested.

Additionally, current certification in cardiopulmonary resuscitation, obstructed airway and standard first aid is minimally required. Many officers have advanced medical certifications. Ongoing training after the Police Academy is provided for all full-time officers.

The Department of Public Safety maintains a twenty-four hour Communications Division. Trained staff members perform a variety of tasks including operating the college's telephone console and dispatching calls over the mobile radio system. Criminal incidents and other emergencies can be reported directly by dialing 8333 from any college telephone. Non-emergency matters should be reported on extension 8281. These numbers are conspicuously placed on or near all college phones. They are also prominently listed in the college telephone directory and included on the department's printed publications and correspondence. The information received by the Communications staff is broadcast to on duty patrol officers who respond to the problem. Swarthmore Borough Police vehicles are equipped with transceivers and may also respond. Other appropriate assistance is summoned by the College Communications Officers.

The Department of Public Safety notifies one of the College's student Deans in the event of any serious incident involving a student. The Dean may mobilize any number of support options for victims of a crime. The Worth Health Center (x8058) is professionally staffed 24 hours a day, seven days a week, while classes are in session. Psychological Services (x8059), the Equal Opportunity Office (x8312), and

Resident Assistants round out available on campus options. Women Against Rape (WAR) maintain active chapters near Swarthmore and a 24-hour hot line (566-4342). An up-to-date listing of local therapists including clinical psychologists, social workers, and psychiatrists in private practice is available in the Health Center on request. College employees may use a free, confidential Employee Assistance Program (ACORN) that provides professional counseling to cope with a variety of issues. They can be contacted 24 hours a day by calling 1-800-223-7050 or 610-664-8350.

Public telephones are located on the campus. These are connected to a county wide 911 network for toll free connection to Delaware County Communications Center who would dispatch Swarthmore Borough fire or police departments to a campus incident.

Significant criminal incidents, arrests by campus police, and suspicious activity are reported to Swarthmore Borough Police on a regular basis. Similarly, criminal events occurring in Swarthmore Borough that could impact the College community are transmitted to the Department of Public Safety. The College does not have any off-campus organizations.

The College community is kept apprised of security matters in a number of ways. Serious incidents are detailed in flyer form and are immediately posted in residence halls, libraries, dining areas and other key locations throughout the campus. Information is also sent via electronic mail to all faculty, staff, and students. This same flyer is also promptly mailed to academic departments and other campus entities. A Resident Assistant phone tree system assists in the rapid dissemination of critical information as does the College's radio station (WSRN 91.5 FM). The Office of News and Information works closely with the local news media when any significant College event transpires. Less serious criminal activity is published weekly in the *Phoenix* (the student newspaper).

Signs are posted on all College buildings so as to restrict all others but students, employees, and invited guests. These facilities are locked on a flexible schedule dictated by the College calendar.

The possession and use of alcoholic beverages on the campus is regulated by state law and

College Life

limited to those areas of the campus which are specified by the Student Council and the Dean. The observance of moderation and decorum in respect to drink is a student obligation. Disorderly conduct is regarded as a serious offense. The College's alcoholic beverage policy can be found in its entirety within the annual publication of the *Student Handbook*.

The College's drug-free campus policy is available in the *Student Handbook* and in the Human Resources office for employees. It is also included in the staff Employee Handbook, as Appendix E and is distributed annually to all students, faculty, and staff.

The use or possession of firearms or other dangerous weapons is not permitted by students, staff, or College Public Safety officers. Known criminal records of students and employees are taken into consideration before admission and/or hiring.

Swarthmore is primarily a residential college in recognition that the close association of students and instructors is an important element in education. Most students live in College residence halls. Single, double and group rooms are available. There are no graduate or married housing accommodations. Many members of the faculty and staff live on or near the campus and are readily accessible to students.

New students are assigned to rooms by the Office of Residential Life. Efforts are made to follow the preferences indicated by the students and to accommodate special needs. Other students choose their rooms in an order determined by lot or by invoking special options. Requests for room changes can be made by notifying the Director of Residential Life of room preferences under guidelines distributed by the Residential Life Office throughout the year.

Students are permitted guests in College housing so long as their resident assistants and housekeepers are duly notified. Guests of the College are housed separately in facilities apart from the main campus. Residence Halls (except Parrish Hall) are normally locked 24 hrs./day. Automatic locks on outside residence hall doors are supplemented by posted warnings that these facilities are private property and access is restricted. Students' residence hall room doors are individually keyed. Cores are changed in response to any significant se-

curity breach such as a stolen room key. Residence hall room doors are augmented with safety chain locks. Residence hall windows are equipped with screens and locking devices to deter unauthorized entry. Regular interior and exterior patrols are made by College Public Safety officers. Resident assistants are selected to serve in all residence halls and have on-site responsibility for security, fire protection, and general safety. A review of security concerns, procedures, and services are published yearly in the *Swarthmore College Student Handbook*.

The Department of Public Safety operates under the philosophy that it is preferable to prevent crime from occurring than to react to it after the fact. The principal instrument for accomplishing this goal is the College's Crime Prevention program. It is based upon the dual concepts of eliminating or minimizing criminal opportunities whenever possible and encouraging community members to be responsible for their own security and the security of others. The following is a listing of the Crime Prevention programs and projects employed by Swarthmore College.

Swarthmore College Shuttle Bus: A student operated, radio equipped van transports students free of charge in and around the main campus during the evening and early morning hours.

Tri-College Shuttle Bus: Free transportation is provided to students traveling between Haverford, Bryn Mawr and Swarthmore colleges. This service is available from approximately 7:00 a.m. to 2:00 a.m.

Escort Service (Garnet Patrol): The Student Garnet Patrol program provides a deterrent to assault on campus and increases security consciousness in the College community. Members escort people after dark, notice and report to Public Safety suspicious strangers or incidents, increase the Public Safety Department's awareness of students' concerns, and increase the level of traffic along key walkways on campus.

Crime Prevention Publicity: Articles and material are routinely published and distributed. Fire and Crime Prevention films are shown to R.A.'s and student groups on request.

Electronic Alarm Systems: A proprietary electronic alarm system monitors a network of intrusion detection and duress alarm systems.

Architectural Design: Crime Prevention strategies and concepts are considered in the design

of new and renovated campus facilities as it relates to physical and electronic systems.

Security Surveys: Comprehensive security surveys are made for a number of campus offices and facilities each year.

Operation Identification: This community venture into property identification works to deter thefts and assist in the recovery of stolen items.

Bicycle Registration: The Department of Public Safety encourages bicycle owners to register their bikes. Decals and engraving are part of this free program. High security bike locks are carried by the college Bookstore.

Rape Awareness, Education & Prevention: Presentations and publications are made each year to members of the college community.

Crime statistics and rates for the most recent three-(3) year period are available on request from the Department of Public Safety.

Swarthmore College's Statement of Security Policies and Procedures is written to comply with the (PA) College and University Security Information Act - 24 P.S., Sec. 2502-3 (c), and the Federal "Crime Awareness and Campus Security Act." For a full copy of this document, or to discuss any questions or concerns, contact Owen Redgrave, Director of Public Safety..

COCURRICULAR ACTIVITIES

Student Council

The thirteen-member, semi-annually elected Student Council is the chief body of student government and exists to serve and represent the students of Swarthmore College. The powers and responsibilities of the Student Council are: 1) the administration of the Student Activities Fund; 2) the appointment of students to those committees within the college community upon which student representatives are to serve; 3) the oversight of those students of those committees; 4) the operation of just elections; 5) the execution of referendums; 6) the representation of the student body to the faculty, staff, and administration, and to outside groups, as deemed appropriate; 7) the formulation of rules needed to exercise these powers and to fulfill these responsibilities. Student Council provides a forum for student opinion and is willing to hear and, when

judged appropriate, act upon the ideas, grievances, or proposals of any Swarthmore student.

Major committees of the Council include the Appointments Committee, Budget Committee, and Social Affairs Committee. The five member Appointments Committee selects qualified student applicants for positions on student, faculty, and administration committees. The Budget Committee, made up of ten appointed members, a Treasurer, and two Assistant Treasurers, allocates and administers the Student Activity Fund. The Social Affairs Committee (SAC) allocates funds to all campus events, maintains a balanced social calendar and is responsible for organizing formals and various other activities that are designed to appeal to a variety of interests and are open to all students free of charge. SAC consists of ten appointed members and two Co-directors who are hired by the Concessions Committee.

Music

The Department of Music administers and staffs several performing organizations. *The College Chorus*, directed by John Alston, rehearses three hours per week. *The College Chamber Choir*, a select small chorus drawn from the membership of the Chorus, rehearses an additional two hours twice a week. *The College Orchestra*, directed by Sarah Ioannides, rehearses twice a week. *The Chamber Orchestra*, directed by John Alston, gives one concert each semester; its rehearsals closely precede the concert, and its members are drawn from The College Orchestra. The fall concert will be Beethoven's *Ninth Symphony*. The Orchestra (Chamber Orchestra), Chorus (Chamber Choir), and Jazz Ensemble require auditions for membership. *The Wind Ensemble*, which rehearses one night weekly and gives two major concerts each year, is under the direction of Michael Johns. *The Early Music Ensemble*, directed by Michael Marissen, meets each week and gives two concerts during the year. *Gamelan Semara Santi* performs traditional and modern compositions for Balinese Gamelan (Indonesian percussion orchestra) under the direction of Thomas Whitman. This group rehearses three hours per week and gives one concert each semester.

The Jazz Ensemble, the Department's large jazz group directed by John Alston, rehearses weekly and gives two concerts each year. More information about joining these performing

groups can be found on the bulletin boards on the upper level of Lang.

Instrumentalists and singers can also participate in the chamber music coaching program coordinated by Dorothy Freeman. Several student chamber music concerts (in which all interested students have an opportunity to perform) are given each semester. These concerts also provide an opportunity for student composers to have their works performed.

The Swarthmore College String Quartet, composed of four outstanding student string players who also serve as principal players in the College Orchestra and Chamber Orchestra, performs frequently at the College and elsewhere.

We offer academic credits in conjunction with subsidies to support private instrumental and vocal lessons for qualified students; please refer to pages 74-81 (awards and fellowships) and page 236 (Music Department, 48).

The Orchestra each year sponsors a *Concerto Competition*, open to all Swarthmore College students. Auditions for the competition are normally held the first Thursday after winter vacation. The winner performs with the Orchestra at its spring concert.

Practice and performance facilities in the Lang Music Building include sixteen practice rooms (most with at least one piano), a concert and a rehearsal hall (each with its own concert grand), two organs, and two harpsichords. *The Daniel Underhill Music Library* has excellent collections of scores, books, and records.

The William J. Cooper Foundation presents a distinguished group of concerts each year on the campus. The Department of Music and Dance administers a separate series of public concerts. *FebFest*, a month-long college-wide focus on the arts, takes place each year at the beginning of the spring semester. Symposia, concerts and workshops by world-famous visiting artists and on-campus ensembles as well as an annual opera created and performed especially for local school children are the central components of the Festival.

Orchestra 2001, an acclaimed professional ensemble devoted to the performance of contemporary music, is in residence at the College. Under the direction of Professor of Music James Freeman, the group gives an annual series of four or five concerts in Lang Concert

Hall, exploring music of the present time and often including recent works by composers at the College. World renowned soloists are featured, and student musicians are sometimes invited to perform with the ensemble.

Dance

The Swarthmore College Dance Program, directed by Professor Sharon Friedler, strives to foster a cooperative atmosphere in classes and performance situations.

The Swarthmore College Dancers regularly perform public concerts with works choreographed by students, the dance faculty, and other professional choreographers.

Each year there are a series of formal concerts at the end of each semester, as well as informal performances throughout the year, including a series of exchange concerts with other area colleges. Lecture demonstrations for public schools and for organizations within the surrounding communities are also a regular part of the yearly dance performance schedule.

For the past few years Swarthmore College has been the recipient of Pennsylvania Council of the Arts and National Endowment for the Arts grants which have enabled the College, in conjunction with the William J. Cooper Foundation, to bring outstanding professional dance companies to campus for short term residencies.

These residencies typically last from three days to two weeks, and include master classes, lectures, performances, and sometimes, the creation of a new work by a guest artist for student performers.

Each year the Swarthmore Music and Dance Festival brings together guest artists, faculty members, and students in a series of performances and symposia focused on specific themes.

Scholarships for summer study are available to dance students through funds provided by the Friends of Music and Dance. The Halley Jo Stein Award for Dance and the Melvin B. Troy Award for Composition are also awarded annually by the Department.

The Department of Physical Education and Athletics sponsors a coeducational performance group in Folk Dance.

Theatre

Associate Professor Allen Kuharski is Director

of The Theatre. He supervises the Theatre Studies program. Interested students should consult the departmental statement for Theatre Studies.

Internships in film production, casting, development and other departments are available at theatres throughout the Philadelphia area. See Mr. Kuharski for details.

Athletics

Swarthmore's athletic policy is based on the premise that any sports program must be justified by the contributions which it can make to the educational development of the individual student who chooses to participate. In keeping with this fundamental policy, Swarthmore's athletic program is varied, offering every student a chance to take part in a wide range of sports. Within the limits of finance, personnel, and facilities, the College feels that it is desirable to have as many students as possible competing on its intercollegiate or club teams, or in intramural sports. Many faculty members serve as advisers for several of the varsity athletic teams. They work closely with the teams, attending practices and many of the scheduled contests.

Extracurricular Activities

There is a great variety of extracurricular life more fully detailed in the *Guide to Student Life*. The more than one hundred student organizations range in scope from Student Council to Amnesty International to WSRN (the student radio station). Social, athletic, political, cultural, and community groups also provide students with a wealth of opportunity and choice. The College encourages students to participate in whatever activities best fit their personal talents and inclinations.

Publications and Media

The *Phoenix*, the weekly College newspaper, the *Halcyon*, the college yearbook, and WSRN, the campus radio station are completely student-run organizations. In addition, there are more than fourteen other student publications, including literary magazines and newsletters. The current list of publications can be found in the *Guide to Student Life*.

OUTREACH PROGRAMS

The Swarthmore College TRIO/Upward Bound Program

TRIO/Upward Bound develops young leaders. TRIO/Upward Bound offers academic and cultural enrichment activities to high school students in the surrounding community and primarily the city of Chester. The primary goal of this national program is to prepare urban high school students for post-secondary education.

The TRIO/Upward Bound Program at Swarthmore College began in 1964, and continues with federal support from the U.S. Department of Education. More than 700 TRIO Programs exist on college campuses throughout the United States. TRIO/Upward Bound is one of the oldest and most active community outreach programs at Swarthmore College.

TRIO/Upward Bound offers both a six-week residential summer school in which Swarthmore students may serve as Tutor/Counselors, and a series of activities during the academic year in which Swarthmore students serve as Tutors. For over 30 years, Swarthmore College students have volunteered time to successfully tutor and mentor hundreds of TRIO/Upward Bound participants. The program is administered by a full-time Project Director, Michael Robinson.

OFFICE OF VOLUNTEER PROGRAMS

One of the College's most tangible examples of its commitment to foster a deep sense of ethical and social concern is its support of student involvement in community service, advocacy and social change. The Office of Volunteer Programs connects community-articulated needs with students, faculty and staff interested in making a difference; and promotes student leadership in development and implementation of community-based initiatives. The Office provides training and coordination for CIVIC (Cooperative Involvement of Volunteers In Communities), a collection of student-initiated and led organizations engaged in a wide array of efforts in Chester and the Greater Philadelphia metropolitan area, including tutoring and after school programs, adult literacy, environmental advocacy, programs for immi-

grant and refugee adults and children, classroom-based programs in local public schools, and alternative break projects during Fall, Winter and Spring breaks. The Office of Volunteer Programs maintains a Clearinghouse and web site listing nearly 500 individual volunteer opportunities in the area, and supports faculty in the development and implementation of courses that employ community-based learning. Coordinator Patricia James supports student, faculty and staff service efforts, organizes trainings and workshops, and manages liability, budget and transportation for College-sponsored volunteer efforts.

Civic Programs:

1. Chester Community Improvement Project renovates abandoned houses for subsidized purchase by low-income families.
2. Homework Enrichment Program is an afternoon homework clinic for elementary school children.
3. Chester Tutorial helps elementary school children with homework two evenings per week.
4. Students Promoting Environmental Equity In Chester (SPEEC) works with a grassroots community organization to provide information to residents about issues of environmental justice; and conducts a children's environmental education program.
5. SRS Tutors meet once a week with students at the nearby SRS elementary school to provide tutoring and homework enrichment.
6. Teaching Leadership In Chester (TLC) works with middle school students in Chester to provide training in leadership and non-violent conflict resolution.
7. Chinatown Tutorial works with Chinese-American and immigrant children in Philadelphia to improve language and academic skills, and to increase self-esteem. This is a cooperative project with students from Bryn Mawr, Haverford and the University of Pennsylvania.
8. Serving The Homeless In Philadelphia (SHIP) provides food, clothing and information about human services for homeless people in Philadelphia. They offer hands-on education programs for children to gain a better understanding of homelessness.
9. Science For Kids works with students at a

local elementary school once a week to foster interest and excitement about science.

10. Fall, Winter & Spring Break Service Projects: Students work on various community-defined projects in the Norris Square Neighborhood of Philadelphia.

New CIVIC groups include a leadership program for middle school girls, a community gardening program at a shelter, a prison literacy program, an adult literacy program for Asian immigrants, and a program with elderly residents of a nearby care center.

Landis Community Service Fund

The Landis Community Service Fund was established in 1991 by James Hormel, Class of 1955, and other friends of Kendall Landis, Class of 1948, in recognition of his 18 years of service to the College. Grants are awarded from this fund at the direction of the Dean's Office to faculty and students for community outreach service programs.

Swarthmore Foundation

The Swarthmore Foundation awards grants to students (including graduating seniors), faculty or staff, for participation in community service during the College year and/or summer. Grants ranging from \$500 to \$3,000, for living expenses or essential project materials, are awarded three times each year by the Swarthmore Foundation Committee (Catalogue p. 322). During the 1997-98 academic year, the Foundation awarded \$70,000 in grants. Preference is given to projects in Chester, Philadelphia, Delaware County, or the applicant's home town. For further information consult Verna Cole, chair of the Swarthmore Foundation Committee, or Gilmore Stott in the Dean's Office.

ALUMNI RELATIONS

Alumni Relations is the primary communication link between the College and its alumni, enabling them to maintain an on-going relationship with each other. Some of the office's programs and activities include Alumni Weekend, an Alumni College, the Alumni Council, Parents Weekend, alumni gatherings all over the country, and alumni travel. The Alumni Office hires students as events interns, and to help at alumni events on campus.

The Alumni Office works closely with the Office of Career Planning and Placement to facilitate networking between students and alumni and among alumni, to take advantage of the invaluable experience represented among the alumni. The Alumni Office also helps officers of the senior class and alumni groups plan special events.

The Alumni Office gives staff support to the Alumni Association, which was founded in 1882, and to the Alumni Council, the governing body of the Alumni Association. The Alumni Office gives staff support also to regional alumni and parent groups, called Connections, in Philadelphia, New York City, Boston, Washington, D.C. and Baltimore, North Carolina, Chicago, Los Angeles, San Francisco, and Seattle.

There are 16,722 alumni: 8,671 men, 8,051 women, and 2,276 married to each other, giving substance to the traditional appellation for the College of "the Quaker Matchbox." The College defines an alumnus/a as anyone who has completed one semester.

sources and expertise of the faculty and professional staff. The News and Information Office prepares two publications. On *Campus*, a monthly schedule of campus activities that are open to the public, is distributed on request to more than 2,000 households in the Philadelphia area. The *Weekly News*, a newsletter of events and announcements, is distributed to faculty, staff, and students. The office lends support for special events and projects, and provides public relations counsel for the College.

The Office hires students as feature writers, events publicity writers, and clerical help.

COLLEGE PUBLICATIONS

The Publications Office creates a variety of printed communications for the College community. The quarterly *Swarthmore College Bulletin* is sent free of charge to all alumni, parents, friends, and members of the senior class. Other publications produced by the office include an annual engagement calendar, the bi-annual *Garnet Letter*, a report of donations to the College, a parents newsletter, and this catalogue. Members of the Publications staff and a student intern provide editorial, photographic, graphic design, and print production services to other offices on campus.

NEWS AND INFORMATION

The Office of News and Information works with the faculty, students, and staff to provide news about the College to the public, primarily through the print and broadcast media. It publicizes all public events on campus, and responds to requests from the media for information on a variety of subjects by using the re-

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GENERAL STATEMENT

Swarthmore College offers the degree of Bachelor of Arts and the degree of Bachelor of Science. The latter is given only to students who major in Engineering; the former, to students in the Humanities, the Social Sciences, and the Natural Sciences. Four years of resident study are normally required for a Bachelor's degree (see page 73), but variation in this term, particularly as a result of Advanced Placement credit, is possible (see page 22).

The selection of a program will depend upon the student's interests and vocational plans. The purpose of a liberal education, however, is not primarily to provide vocational instruction, even though it provides the best foundation for one's future vocation. Its purpose is to help students fulfill their responsibilities as citizens and grow into cultivated and versatile individuals. A liberal education is concerned with the cultural inheritance of the past, with the cultivation of moral, spiritual, and aesthetic values, and with the development of analytical abilities. Intellectually it aims to enhance resourcefulness, serious curiosity, open-mindedness, perspective, logical coherence, insight, discrimination.

The Swarthmore curriculum requires of the student both a diversity of intellectual experience sufficient to test and develop different capacities and perspectives and concentration on some field(s) sufficiently intensive to develop a serious understanding of problems and methods and a sense of the conditions of mastery. These ends of a liberal education are reflected in requirements for distribution and for the major.

During the first half of their college program all students are expected to satisfy most if not all of the distribution requirements, to choose their major and minor subjects, and to prepare for advanced work in these subjects by taking certain prerequisites. The normal program consists of four courses each semester chosen by the student in consultation with his or her faculty advisor.

All students must fulfill the requirements for the major, and before the end of the senior year, students are required to pass a comprehensive examination or its equivalent, given by the major department.

For Honors candidates, courses and seminars taken as preparation for external evaluation occupy approximately one-half of the student's work during the last two years. In addition to work taken as a part of the Honors Program, the students take other courses which provide opportunities for further exploration. During the senior year many departments offer a specially designed Senior Honors Study for Honors majors and minors to encourage enhancement and integration of the Honors preparations. At the close of the senior year, candidates for Honors will be evaluated by visiting examiners.

The program for engineering students follows a similar basic plan, with certain variations which are explained on page 136. Courses outside the technical fields are distributed over all four years.

The course advisors of freshmen and sophomores are members of the faculty appointed by the Dean. For juniors and seniors the advisors are the chairs of their major departments or their representatives.

PROGRAM FOR FRESHMEN AND SOPHOMORES

The major goals of the first two years of a Swarthmore education are to introduce students to a broad range of intellectual pursuits, to equip them with the analytic and expressive skills required to engage in those pursuits, and to foster a critical stance towards learning and knowing. The College distribution requirements are designed to aid students in achieving these goals.

To meet the distribution requirements, a student must:

- 1) complete at least 20 credits outside the major before graduation;
 - 2) take at least three credits in each of the three divisions of the College (listed below), the third credit of which can be AP credit or credit awarded for work done elsewhere;
 - 3) of the three credits in each division, take at least two credits which are in different departments and are also designated Primary Distribution courses. This will make a total of six Primary Distribution courses, each in different departments, and spanning the three divisions
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equally.

For purposes of the distribution requirements the three divisions of the College are constituted as follows:

Humanities: Art, Classics (literature), English Literature, Modern Languages and Literatures, Music and Dance, Philosophy, Religion.

Natural Sciences and Engineering: Biology, Chemistry, Computer Science, Engineering, Mathematics and Statistics, Physics and Astronomy.

Social Sciences: Classics (ancient history), Economics, Education, History, Linguistics, Political Science, Psychology, Sociology and Anthropology.

Primary Distribution courses place particular emphasis on the mode of inquiry in a particular discipline. In teaching students to be self-conscious about how knowledge is generated, these courses seek to develop an appreciation of both the power and the limits of each discipline within a broader system of knowledge. In recognition of the importance of writing as an integral part of the learning process in disciplines across the curriculum, Primary Distribution courses also provide considerable practice in expressing analytic and synthetic thought in writing. Primary Distribution courses are intended to be appropriate both for those students who continue in a field and for those who do not. To promote discussion they are restricted to 25 students or have accompanying small laboratories or discussion sections.

Courses which count for Primary Distribution are designated in the departmental listings. The requirement of six Primary Distribution courses must be satisfied by courses taken at Swarthmore and, with the exception of literature courses taught in a language other than English, will normally be completed before the student enters the junior year.

Any course in a division (with the exception of English Literature courses numbered 1A, 1B, 1C, Music courses numbered 40-49, and Dance courses numbered 1-12 and 40) may be chosen as the third Distribution course in that division, including AP credit or credit awarded for work done elsewhere. Some courses may be designated as qualifying for distribution (including Primary Distribution) within more than one division. One-credit courses so designated can be counted in only one of those divi-

sions; multi-credit courses so designated may be counted for distribution in two or more divisions.

A course cross-listed between departments, within or across divisions, will fulfill the distribution requirement only for the department and division of the professor who offers the course. Unless designated otherwise, courses taught jointly or alternately by faculty members of departments in different divisions may not be used to satisfy distribution requirements. Students who have been granted credit and advanced placement in two departments in the same division for work done prior to matriculation at Swarthmore will be exempted from one Primary Distribution requirement in that division on the condition that they take an additional course in one of those departments. They will be exempted from both Primary Distribution requirements in that division on the condition that they take an additional course in each of those departments. Students who enter Swarthmore as transfer students with eight credits of college work will be exempted from one Primary Distribution requirement in each division. Students who enter Swarthmore with at most four semesters remaining to complete their degree will be exempted from the Primary Distribution component of the distribution requirement.

It is most desirable that students include in their programs some work in a foreign language, beyond the basic language requirement (see p. 73). A student who intends to major in one of the natural sciences, mathematics, or engineering should take an appropriate mathematics course in the freshman year. Students intending to major in one of the social sciences should be aware of the increasing importance of mathematical background for these subjects.

In the freshman and sophomore years all students not excused for medical reasons are required to complete a four quarter (two semester) program in physical education. The requirements are stated in full on page 72.

Early in the sophomore year, the student should identify two or three subjects as possible majors, paying particular attention to departmental requirements and recommendations. In the spring of the sophomore year, each student will, with the guidance of his or her advisor, prepare a reasoned plan of study for the last two

years. This plan will be submitted to the chair of the student's proposed major as a part of the application for a major. Acceptance will be based on the student's record and an estimate of his or her capacities in the designated major. Students who fail to secure approval of a major may be required to withdraw from the College.

While faculty advisors assist students in preparing their academic programs, students themselves are individually responsible for planning and adhering to programs and for the completion of graduation requirements. Faculty advisors, department chairs, other faculty members, the Deans, and the Registrar are available for information and advice.

PROGRAMS FOR JUNIORS AND SENIORS

The major goals of the last two years of a Swarthmore education are to engage students with a chosen field of inquiry and to assist them in assuming an independent role in creating and synthesizing knowledge within it. The breadth of exposure, acquisition of skills, and development of a critical stance during the first two years prepare students to pursue these goals. With the choice of a major, the focus shifts from scope to depth. Students become involved for two years with a discrete field of inquiry and demonstrate their mastery of that field through the completion of courses within the major and courses taken outside the major which serve to expand and deepen the student's perspective on the major.

All students are required to include sufficient work in a single department or program (designated as a "major") to make an equivalent of at least eight courses before graduation.

To complete a departmental major, a student must be accepted as a major, and in addition to the standard eight courses and comprehensive requirement in the major department, must fulfill other specific departmental requirements. The requirements for acceptance to departmental majors and for completion of them are specified in this catalogue under the respective departmental listings, and are designed to ensure a comprehensive acquaintance with the field. The completion of two majors is allowed depending upon the permission of both departments of the proposed dou-

ble major for the student. Triple majoring is not allowed. A student must accumulate twenty course credits outside his or her major, but there is no other limit on the number of courses that a student may take in his or her major.

With departmental permission(s) it is possible for a student to plan a Special Major that includes closely related work in one or more departments. A Special Major is expected to be integral in the sense that it specifies a field of learning (not necessarily conventional) or topic or problems for sustained inquiry that crosses departmental boundaries and can be treated as a sub-field within the normal departmental major. Special Majors consist of at least 10 credits and normally of no more than 12 credits. Students with Special Majors normally complete a minimum of six courses in the primary department, omitting some of the breadth requirements of the major field; but course requirements central to systematic understanding of the major field will not be waived. Students with Special majors must complete the major comprehensive requirement, which may consist of a thesis or other written research project(s) designed to integrate the work across departmental boundaries. By extension, Special Majors may be formulated as joint majors between two departments, normally with at least five credits in each department and 11 in both departments, which, in such programs, collaborate in advising and in the comprehensive examination. In some areas, such as Biochemistry, Computer Science, Dance, Linguistics, and Psychology, in which special majors are done frequently, the departments involved provide recommended programs. These are described in the relevant department sections of the *Bulletin* or in material available from department chairs.

During the junior and senior years, students are advised by the chair of the major department (or a member of the department designated by the chair) whose approval must be secured for the choice of courses each semester.

HONORS PROGRAM

The Honors Program, initiated in 1922 by President Frank Aydelotte and modified most recently in 1994, is a distinctive part of

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Swarthmore's educational life.

The Honors Program has as its main ingredients student independence and responsibility in shaping the educational experience; collegial relationships between students and faculty; peer learning; opportunity for reflection on and integration of specific preparations; and evaluation by external examiners. Honors work may be carried out in the full range of curricular options, including studio and performing arts, study abroad, and community-based learning.

Students and their professors work in collegial fashion as Honors candidates prepare for evaluation by external examiners from other academic institutions. While Swarthmore faculty grade most of the specific preparations, the awarding of honorifics on a student's diploma is solely based on the evaluation of the external examiners.

Preparations for Honors are defined by each Department, and include seminars, independent projects in research as well as in studio and performing arts, and specially designated pairs of courses. In addition, many departments offer their own format for Senior Honors Study, designed to enhance, and where appropriate integrate, the preparations in both major and minor.

Each Honors candidate's program will include three preparations for external examination in a major and one in a minor, or four preparations in a special or interdisciplinary major. Students offering three preparations in a major or four preparations in a special or interdisciplinary major will be exempted from comprehensive exams in those majors. (Double majors may participate in the Honors Program through three preparations in one major and one preparation in the other). Preparations for both majors and minors will be defined by each department, program, and interdisciplinary major that sponsors a major. In addition, minors may be defined by any program or concentration.

Each Honors candidate's program will also include at least one credit of Senior Honors Study, in which preparations in both major and minor are included. For the purposes of the 20-course rule, up to one credit of Senior Honors Study does not count as in the major department. All preparations will be graded by Swarthmore instructors with the exception of

theses and other original work. Grades for those and for Senior Honors Study will correspond to the level of Honors awarded by external examiners. Except in the case of theses or other original work, modes of assessment by the external examiners will include written exams and/or other written assignments completed in the spring of the Senior year. In addition, during Honors week at the end of the Senior year, every Honors candidate will meet on campus with external evaluators for an oral examination of each preparation. Specific formats for preparations and for Senior Honors Study are available in each department office.

Students will normally include their intention to prepare for Honors in their Plan of Study for the Last Two Years, written in the spring of their Sophomore year. They must also submit to the Office of the Registrar a formal application for a specific program of Honors preparation. The Registrar provides a form for this purpose. Departments, Programs and Concentrations, will make decisions about acceptance of Honors programs at the end of the Sophomore year. Students will be accepted into Honors with the proviso that their work continue to be of Honors quality. Students may also apply to enter Honors during their Junior year, in which case the decision will be made at the end of the Junior year. Any proposed changes to the Honors program must be submitted for approval on a form provided for this purpose by the Registrar. Honors programs may not be changed after December 1 of a student's senior year. The decision of the departments or interdisciplinary programs will depend on the proposed program of study and the quality of the student's previous work as indicated by grades received and upon the student's apparent capacity for assuming the responsibility of honors candidacy. The major department or interdisciplinary program is responsible for the original plan of work and for keeping in touch with the candidate's progress from semester to semester.

At the end of the senior year the decision of the degree of Honors to be awarded the candidates is entirely in the hands of the visiting examiners. Upon their recommendation, successful candidates are awarded the Bachelor's Degree with Honors, with High Honors, or with Highest Honors.

EXCEPTIONS TO THE FOUR-YEAR PROGRAM

Although the normal period of uninterrupted work toward the Bachelor of Arts and Bachelor of Science degrees is four years, graduation in three years is freely permitted when a student can take advantage of Advanced Placement credits, perhaps combining them with extra work by special permission. In some cases students may qualify for advanced standing—they may become juniors in their second year. To qualify for advanced standing a student must 1) do satisfactory work in the first semester; 2) obtain 14 credits by the end of the first year; 3) intend to complete the degree requirements in 3 years; and 4) signify this intention when she/he applies for a major by writing a sophomore paper during the spring of the first year.

When circumstances warrant, a student may lengthen the continuous route to graduation to five years by carrying fewer courses than the norm of four although College policy does not permit programs of fewer than three credits for degree candidates in their first eight semesters of enrollment. A course load lower than the norm may be appropriate for students who enter Swarthmore lacking some elements of the usual preparation for college, who are physically handicapped, or who wish to free time for activities relating to their curricular work although not done for academic credit. Such five-year programs are possible in Music and Studio Arts for students who are taking instruction off campus or who wish to pursue studio or instrumental work without full credit but with instruction and critical supervision; but such programs are possible only on application to and selection by the department concerned, which will look for exceptional accomplishment or promise. In all cases where it is proposed to reduce academic credit and lengthen the period before graduation the College looks particularly to personal circumstances and to careful advising and necessarily charges the regular annual tuition (see the provisions for overloads, p. 23). Full-time leaves of absence for a semester or a year or more are freely permitted and in some cases encouraged, subject also to careful planning and academic advising. Information about work opportunities for leave-takers available through the College Venture Program is in the Career

Planning and Placement office.

NORMAL COURSE LOAD

Although normal progress toward the degree of Bachelor of Arts or Bachelor of Science is made by eight semesters' work of four courses or the equivalent each semester, the object of progress toward the degree is not the mere accumulation of 32 credits. Students may and frequently do vary this by programs of five courses, or three courses, with special permission. College policy does not permit programs of fewer than three courses within the normal eight semester enrollment. Programs of more than five courses or fewer than four courses require special permission (see p. 23 on tuition and p. 70 on registration).

FORMATS OF INSTRUCTION

While classes and seminars are the normal curricular formats at Swarthmore, faculty regulations encourage other modes as well. These include various forms of individual study, student-run courses, and a limited amount of "practical" or off-campus work.

The principal forms of individual work are attachments to courses, directed reading, and tutorials. The faculty regulation on attachments provides that a student may attach to an existing course, with permission of the instructor, a project of additional reading, research, and writing. If this attachment is taken concurrently with the course it is normally done for half credit. If it is taken in a later semester (preferably the semester immediately following), it may be done for either half or full credit. This kind of work can be done on either a small-group or individual basis. It is not possible in all courses, but it is in most, including some introductory courses. For freshmen and sophomores it is a way of developing capacities for independent work, and for Honors candidates it is an alternative to seminars as a preparation for papers. Students who decide before the middle of the semester to do a half-credit attachment may, with permission, withdraw from a regular course and carry three and a half credits in that term to be balanced by four and

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a half credits in another term. Students may do as many as two attachments each year.

Directed Reading and Tutorials

Directed reading and tutorials are similar; but the faculty role in the former is more bibliographical than pedagogical, and, because they require somewhat less faculty time, opportunities for directed reading are more frequent in most departments than are opportunities for tutorials. In both cases substantial written work and/or written examinations are considered appropriate, and it is generally desirable that the work be more specialized or more sharply focussed than is usually the case in courses or seminars; the work may range from a course of reading to a specific research project. Such work is available primarily to juniors and seniors in accordance with their curricular interests and as faculty time permits.

Student Run Courses

The faculty regulation on student-run courses permits a group of students to propose a topic to an instructor for half or single credit and to run their own course with a reading list approved by the instructor and a final examination or equivalent administered by him or her, but normally with no further involvement of faculty. In organizing such a course students obtain provisional approval and agreement to serve as course supervisor from a faculty member by December 1st (for the spring term) or May 1st (for the fall term) on the basis of an initial memorandum emphasizing the principal subject matter to be studied, the questions to be asked about it, the methods of investigation, and providing a preliminary bibliography. The course is then registered by its organizers with the Provost, who has administrative supervision of such work, and who may waive the foregoing deadlines to recognize problems in the organization of such courses. The course supervisor consults his or her department, and in the case of an interdepartmental course, any other department concerned, whose representatives together with the Provost will decide whether to approve the course. The supervisor also reviews the course outline and bibliography and qualifications and general eligibility of students proposing to participate in the course. After a student-run course has been found acceptable by the appropriate department (or departments) and the Provost, the course supervisor's final approval is due ten days

before the term begins, following which a revised reading list and class list are given to the Librarian and the course title and class list are filed with the Registrar. At the end of the course the supervisor evaluates and grades the students' work in the usual way or arranges for an outside examiner to do so.

Student-run courses may vary in format and content. In particular, they may be provisionally proposed for half credit to run in the first half of the semester, and at midterm, may be either concluded or, if the participants and course supervisor find the work profitable, continued for the balance of the term for full credit. Alternatively, student-run courses may be started after the beginning of the semester (up to midsemester) for half credit and then be continued, on the same basis, into the following term. Or they may be taken for half credit over a full term. The role of the course supervisor may exceed that in planning and evaluation outlined above and extend to occasional or regular participation. The only essentials, and the purpose of the procedures, are sufficient planning and organization of the course to facilitate focus and penetration. The course planning and organization, both analytical and bibliographical, are also regarded as important ends in themselves, to be emphasized in the review of proposals before approval. Up to four of the 32 credits required for graduation may be taken in student-run courses.

Finally, as to applied or practical work, the College may under faculty regulations grant up to one course credit for practical work, which may be done off campus, when it can be shown to lend itself to intellectual analysis and is likely to contribute to a student's progress in regular course work, and subject to four conditions: (1) agreement of an instructor to supervise the project; (2) sponsorship by the instructor's department, and in the case of an interdisciplinary project, any other department concerned, whose representatives together with the Provost will decide whether to grant permission for the applied or practical work before that work is undertaken; (3) a basis for the project in some prior course work; and (4) normally, the examination of pertinent literature and production of a written report as parts of the project. This option is intended to apply to work in which direct experience of the off-campus world or responsible applications of

academic learning or imaginative aspects of the practice of an art are the primary elements. Because such work is likely to bear a loose relation to organized instruction and the regular curriculum, the College limits academic credit for it while recognizing its special importance for some students' programs.

INTERDISCIPLINARY WORK

The requirements of the major typically leave room for significant flexibility in students' programs, both within and outside the major. This may be used to pursue a variety of interests and to emphasize intellectual diversity; it may also be used for the practical integration of individual programs around interests or principles supplementing the major. The College offers interdepartmental majors in Asian Studies, Medieval Studies, and Comparative Literature, and formal interdisciplinary programs called Concentrations in Black Studies, Computer Science, Environmental Studies, Francophone Studies, German Studies, Interpretation Theory, Latin American Studies, Peace and Conflict Studies, Public Policy, and Women's Studies. Study in a Concentration can either be in combination with a student's regular major or prepared as a minor in the Honors Program. The specific requirements for these programs are outlined in the relevant sections of the *Bulletin*.

It should be recognized that some departments are themselves interdisciplinary in nature; that a considerable number of courses are cross-listed between departments; that each year some courses are taught jointly by members of two or more departments; and that departments commonly recommend or require supporting work for their majors in other departments. Many other opportunities exist informally—e.g., in African studies, in American studies, in religion and sociology-anthropology, in engineering and social sciences, or in chemical physics. Students are encouraged to seek the advice of faculty members on such possibilities with respect to their particular interests.

HEALTH SCIENCES ADVISORY PROGRAM

The function of the health sciences advisory program is twofold: to advise students interested in a career in the health sciences, and to prepare letters of recommendation for professional schools to which students apply. The letters are based on faculty evaluations requested by the student, the student's academic record and non-academic activities.

Students intending to enter a career in the health sciences, especially those applying to medical or dental schools, should plan their academic programs carefully to meet the necessary requirements, as well as the general College requirements. The following courses are among the minimum requirements for students entering medical or dental schools: Biology 1, 2 (students who have earned advanced placement credit for either Biology 1 or 2 should take one other biology course); Chemistry 10, 22, 32, 38; Physics 3, 4; Math 5 and one additional math course; and English Literature, two semester courses. The work of the junior and senior years may be completed in either the Course or the Honors Program, and in any major department of the student's choice. However, professional schools in the health sciences generally require a demonstrated proficiency in the basic sciences. All required courses should therefore be taken on a graded basis after the first semester of the freshman year.

Almost all medical schools require applicants to take the Medical College Admission Test which is given in April and August each year. It is recommended that students take the test in the Spring of the year that they apply for admission to medical schools. Swarthmore College is a testing center for the MCAT. Corollary tests, the Dental Aptitude Test and the Veterinary Aptitude Test, are often required by dental and veterinary schools.

Specific requirements for each medical and dental school along with much other useful information are given in two publications which are available in the Health Sciences Office: *Medical School Admission Requirements* and *Admission Requirements of American Dental Schools*. Catalogs for most medical and veterinary schools are also on file in the Advisory Office.

The Health Sciences Advisor meets periodi-

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cally with students interested in health careers and is available to assist students in planning their programs in cooperation with students' own academic advisors. The Health Sciences Office publishes two booklets "Guide to Premedical (Predental and Preveterinary) Studies for First- and Second-year Students at Swarthmore College" and "Guide to Applying to Medical School for Swarthmore Undergraduates and Alumni/ae" which contain specific information about the Swarthmore curriculum. Further information on opportunities, requirements and procedures can be obtained from the Health Sciences Advisor but it is the student's responsibility to make his or her intentions known to the Advisor at the earliest possible date.

CREATIVE ARTS

Work in the creative arts is available both in the curriculum of certain departments and on an extracurricular basis. Interested students should consult the departmental statements in Art, English Literature, and Music and Dance.

COOPERATION WITH NEIGHBORING INSTITUTIONS

With the approval of their faculty advisor and the Registrar, students may take a course offered by Bryn Mawr or Haverford College or the University of Pennsylvania without the payment of extra tuition. Students are expected to know and abide by the academic regulations of the host institution. (This arrangement does not apply to the summer sessions of the University of Pennsylvania and Bryn Mawr College.) Final grades from such courses are recorded on the Swarthmore transcript, but these grades are not included in calculating the Swarthmore grade average.

STUDENT EXCHANGE PROGRAMS

To provide variety and a broadened outlook for interested students, the College has student exchange arrangements with Harvey Mudd College, Middlebury College, Mills College,

Pomona College, Rice University, and Tufts University. Selection is made by a committee of the home institution from among applicants who will be sophomores or juniors at the time of the exchange.

With each institution there is a limited and matched number of exchanges. Students settle financially with the home institution, thus retaining during the exchange any financial aid for which they are eligible. Exchange arrangements do not permit transfer of participants to the institution with which the exchange takes place.

STUDY ABROAD

The College emphasizes the importance of study abroad and encourages all students to explore possibilities for doing so as integral parts of their degree programs. The Office for Foreign Study, and the Foreign Study Adviser, will help all interested students at every stage—planning, study abroad, return—of the process.

To be accepted for credit toward the Swarthmore degree, foreign study must meet Swarthmore academic standards. With proper planning, this condition normally is readily met. Proper planning begins with seeing the Foreign Study Adviser as early as possible in one's college career. Credit for study abroad is awarded according to College regulations for accrediting work at other institutions; and the process must be completed within the academic year following return to the College. All students who study abroad must complete the accreditation process immediately upon return.

The Swarthmore Program in Grenoble, France, inaugurated in the fall of 1972. Students entering this program spend either one or two semesters at the University of Grenoble, where their course of study is the equivalent of one or two semesters at Swarthmore. This program, under the auspices of the Department of Modern Languages and Literatures, is open to students from any department, but especially those in the humanities and social sciences. Should there be places available, applications from students at other institutions are accepted. The number of participants is limited to twenty-five.

Students are integrated into the academic life at the University of Grenoble through regular courses, when their language competence allows, or through special courses for foreign students. Individual programs are arranged to suit the needs and competencies of students. Preparation of External Examination papers is possible in certain fields. The program is designed primarily for juniors and second semester sophomores, but seniors can be accommodated in special cases.

A member of the Department of Modern Languages and Literatures acts as resident Director. The Director teaches a course or a seminar, supervises the academic program and the living arrangements of the students, and advises on all educational or personal problems. A coordinator of the program at Swarthmore handles such matters as admissions to the program (in consultation with the Deans), financial aid, transfer of academic credit to departments within the College and to institutions whose students participate in the program. Applications for the fall semester must be submitted by March 15 and for the spring semester by October 15.

Academic Year in Madrid, Spain. This program is administered by the Romance Language Department of Hamilton College, in cooperation with faculty members of Williams and Swarthmore Colleges. Students may enroll for the full academic year or for either the fall or spring semester. (Credit at Swarthmore must be obtained through the departments concerned.) The program attempts to take full advantage of the best facilities and teaching staff of the Spanish community, while adhering to the code of intellectual performance characteristic of the most demanding American institutions.

A distinguishing aspect of the program is the individual guidance provided students in non-academic areas, especially in (1) the efforts that are made to find homes well suited for student lodging, and (2) the activities which are planned to insure ample contact with Spanish students.

The program is based in Madrid, where the cultural, educational and geographic benefits are optimal. Classrooms and office space are located at the International Institute (Miguel Angel 8, Madrid). The Institute houses a library eminently suited for study and research, and it

sponsors a series of lectures, concerts, and social activities.

The program is under the general guidance of a committee comprised of members of the Hamilton College Department of Romance Languages, who, in rotation with professors from Williams and Swarthmore Colleges, serve also as directors-in-residence in Madrid.

Applications and further information are available from the Department of Modern Languages and Literatures.

In addition to the programs in Grenoble and Madrid, there are a number of excellent foreign study programs throughout the world. The Foreign Study Office, along with the academic departments and programs of the College, will advise students on this. Information on foreign study programs is available in the Foreign Study Office.

Financial aid may be applied to study abroad, with the approval of the Foreign Study Office. For students who are in good academic standing and who plan to attend academically and credit worthy programs, approval is normally routine.

Study abroad students who wish to receive credit toward the Swarthmore degree for their completed work will pay, for the semester or year abroad, full Swarthmore tuition, room, and board to Swarthmore, and Swarthmore will pay the foreign study programs on their behalf. Complete information on payment procedures for study abroad is available in the Foreign Study Office.

The Olga Lamkert Memorial Fund. Income from a fund established in 1979 by students of Olga Lamkert, Professor of Russian at Swarthmore College from 1949 to 1956, is available to students with demonstrated financial need who wish to attend a Russian summer school program in this country or either the Leningrad or Moscow semester programs. Awards based on merit and financial need will be made on the recommendation of the Russian section of the Department of Modern Languages and Literatures.

The Eugene M. Weber Memorial Fund. Income from a fund established in 1986 to honor the memory of Eugene M. Weber, Professor of German at Swarthmore College from 1973 to 1986, is available to students with demonstrated financial need who wish to attend an acad-

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emic program in a German-speaking country. Awards based on merit and financial need will be made on the recommendation of the German section of the Department of Modern Languages and Literatures.

STUDENT RIGHT TO KNOW

Swarthmore College's six-year graduation rate, based on the 1991 new First-Year student cohort, is 92.2%.

Faculty Regulations

ATTENDANCE AT CLASSES

Regular attendance is expected. Faculty members will report to the Dean the name of any student whose repeated absence is in their opinion impairing the student's work. The number of absences allowed in a given course is not specified, a fact which places a heavy responsibility on all students to make sure that their work is not suffering as a result of absences. Since first-year students must exercise particular care in this respect, and since the Faculty recognizes its greater responsibility toward them in the matter of class attendance, it is expected that first-year students, especially, will attend all classes.

When illness necessitates absence from classes, the student should report at once to the Health Center.

A student may obtain credit for a course without attending class meetings by reading the material prescribed by a syllabus and taking a final examination, under the following conditions:

- 1) The student must signify intent to do so at the time of registration, having obtained the instructor's approval in advance.
- 2) If after such registration the student wishes to resume normal class attendance, the instructor's approval must be obtained.
- 3) The student may be required to perform such work, in addition to the final examination, as the instructor deems necessary for adequate evaluation of his or her performance.
- 4) The final grade will be recorded by the Registrar exactly as if the student had attended classes normally.

GRADES

Instructors report to the Dean's and Registrar's offices at intervals during the year upon the work of students in courses. Informal reports during the semester take the form of comments on unsatisfactory work. At the end of each semester formal grades are given in each course either under the Credit/No Credit (CR/NC) system, or under the letter system, by which A means excellent work, B good work, C satisfactory work, D passing but below the average required for graduation, and NC (no credit) for

uncompleted or unsatisfactory work. Letter grades may be qualified by pluses and minuses. *W* signifies that the student has been permitted to withdraw from the course. *X* designates a condition; *X* means that a student has done unsatisfactory work in the first half of a year course, but by creditable work during the second half may earn a passing grade for the full course and thereby remove the condition. *R* is used to designate an auditor or to indicate cases in which the work of a foreign student cannot be evaluated because of deficiencies in English.

In Progress

IP (In Progress) is the grade used when normally everyone in a class continues working on a project into the next semester; IP is given at the end of the first semester to indicate "In Progress." Final grades are normally due at the end of the succeeding semester.

Incomplete

Inc. means that a student's work is incomplete with respect to specific assignments or examinations. The Faculty has voted that a student's final grade in a course should incorporate a zero for any part of the course not completed by the date of the final examination, or the end of the examination period. However, if circumstances beyond the student's control preclude the completion of the work by this date, a grade of *Incomplete (Inc.)* may be assigned with the permission of the Registrar. In such cases incomplete work must normally be made up and graded and the final grade recorded within five weeks after the start of the following term. Except by special permission of the Registrar (on consultation with the Committee on Academic Requirements) all grades of *Inc.* still outstanding after that date will be replaced on the student's permanent record by NC (no credit). Waiver of this provision by special permission shall in no case extend beyond one year from the time the *Inc.* grade was incurred.

Credit/No Credit

The only grades recorded on students' records for courses taken during their first semester of the freshman year are CR (credit) and NC (no credit). In the balance of their work at Swarthmore, students may exercise the option to take up to four more courses for Credit/No Credit by informing the Registrar's Office within the first two weeks of the term in which

Faculty Regulations

the course is taken. Until the middle of the semester, students may reconsider and opt to receive a formal grade in the course. This course will count as one of the four optional Credit/No Credit courses. Repeated courses may not be taken Credit/No Credit. Courses only offered as Credit/No Credit do not count in the four optional elections. For freshmen and sophomores CR will be recorded for work that would earn a grade of straight D or higher; for juniors and seniors (that is, students with at least 16 credits, not counting AP credits) the minimum equivalent letter grade for CR will be straight C. Instructors are asked to provide the student and the faculty adviser with evaluation of the student's Credit/No Credit work. The evaluation for first-semester freshmen includes a letter-grade equivalent; for other students the evaluation may be either a letter-grade equivalent, or a comment. Such evaluations are not a part of the student's grade record. Letter grade equivalents only, for first semester freshmen courses only, may be provided to other institutions if requested by the student and absolutely required by the other institution.

Some courses can be repeated for credit; these are indicated in departmental course descriptions. For other courses, the following rules apply: Permission to repeat a course must be obtained from the Swarthmore instructor teaching the repetition. To take a course at another school to serve as a repeat of a course previously taken at Swarthmore, permission must be obtained from the chair of the Swarthmore department in which the original course was taken. For possible credit for such work done elsewhere, the chair's permission needs to be obtained as a part of the credit approval and validation processes.

For repeated courses in which the student withdraws before the mid-point of the semester, the grade and credit for the previous attempt will stand. For other repeated courses, the grade for the previous attempt will be preserved in brackets on the permanent record, and any credit for the previous attempt will be permanently lost; the final grade and any credit earned in the repetition are the grade and credit applicable to the Swarthmore degree. Repeated courses may not be taken Credit/No Credit.

Reports of grades are sent to students at the

end of each semester. They are not routinely sent to parents or guardians, but such information may be released when students request it.

A C (2.0) average is required in the courses counted for graduation. An average of C is interpreted for this purpose as being a numerical average of at least 2.0 (A+, A = 4.0, A- = 3.67, B+ = 3.33, B = 3.0, B- = 2.67, C+ = 2.33, C = 2.0, C- = 1.67, D+ = 1.33, D = 1.0, D- = 0.67). Grades of Credit/No Credit and grades on the record for work not taken at Swarthmore College are not included in computing this average.

REGISTRATION

All students are required to register and enroll at the time specified in official announcements and to file programs approved by their faculty advisers. Fines are imposed for late or incomplete registration or enrollment.

A regular student is expected to take the prescribed number of courses in each semester. If more than five or fewer than four courses seem desirable, the faculty advisor should be consulted and a petition filed with the Registrar.

Applications for late entrance into a course or for withdrawal (with deleted course registration) must be delivered to the Registrar's Office within the first two weeks of the semester. Applications involving withdrawal from a course (with the permanent grade notation W) must be received not later than the middle of the semester, or the mid-point of the course if it meets for only one-half a semester. After the mid-point of the semester, or of the course if it meets for part of a semester, late withdrawals are recorded on the student's record with the notation NC (No Credit).

Students do not register for audits. Successfully completed audits are recorded (with the notation R) at the end of the semester (except in cases where the student has withdrawn after the first two weeks of the semester, in which cases the appropriate withdrawal notation stands).

A deposit of \$100 is required of all returning students prior to their enrollment in both the spring and fall semesters. This deposit is applied to charges for the semester, and is not refundable.

EXAMINATIONS

Any student who is absent from an examination, announcement of which was made in advance, shall be given an examination at another hour only by special arrangement with the instructor in charge of the course.

No examination in absentia shall be permitted—instructors shall give examinations only at the College and under direct departmental supervision.

ACADEMIC HONESTY

Members of an academic community have an unequivocal responsibility to present as the result of their own work only that which is truly theirs. Cheating, whether in examinations or by plagiarizing the work of others, is a most serious offense, and one which strikes at the foundations of academic life.

The responsibility of the Faculty in this area is three-fold: to explain the nature of the problem to those they teach (the Faculty's statement concerning plagiarism may be found in *The Student Handbook*), to minimize temptation, and to report any case of cheating to the Dean for action by the College Judiciary Committee.

The College Judiciary Committee will consider the case, make a finding of guilty or not guilty, and determine an appropriate sanction if a finding of guilt is reached. The order of magnitude of the penalty should reflect the seriousness of the transgression. It is the opinion of the Faculty that for the first offense failure in the course and, as appropriate, suspension for a semester or deprivation of the degree in that year is not unsuitable; for a second offense the penalty should normally be expulsion. A full description of College judicial procedure may be obtained from the Office of the Dean.

STUDENT LEAVES OF ABSENCE, WITHDRAWAL, AND READMISSION

Leaves of Absence

Student leaves of absence are freely permitted provided the request for leave is received by

the date of enrollment and the student is in good standing. Students planning a leave of absence should consult with a dean and complete the necessary form prior to the deadline published each semester (usually December 1 and April 1). The form indicates the date of expected return; students need only notify the dean of their return if their return date changes from that originally indicated on the completed form.

Withdrawal

Withdrawal from the College may occur for academic, disciplinary, health, or personal reasons, and may be voluntary or required by the College.

For health-related withdrawal, in no case will a student's mental or physical condition itself be a basis for a required withdrawal. However, when health problems of a physical or psychological nature result in behavior that substantially interferes with a student's academic performance or the educational endeavors of other students, or poses a significant threat to the student's safety or safety of others, the student may be required to withdraw by the College. After a considered review of the problematic behavior, this determination is made by the Evaluation Committee, chaired by the Associate Dean for Academic Affairs and comprised of the Associate Dean for Student Life, and the Assistant Dean/Director of Residential Life. The Evaluation Committee may consult with the Director of Worth Health Center, the Director of Psychological Services, or any other appropriate College official when making its decision. Decisions of the Evaluation Committee may be appealed to the Dean of the College.

Readmission

A student who has withdrawn from the College for any reason, voluntarily or involuntarily, may apply for readmission by writing to the Dean of the College. In the case of mental health withdrawal, normally the College will not accept applications for readmission until a full semester, in addition to the semester in which the student has withdrawn, has passed.

A student applying to the College for readmission after withdrawal will be required to provide appropriate documentation of increased ability to function academically and in a residential environment, and/or of decreased haz-

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ard to health and safety of self and/or others. In addition, the student will generally be required to show evidence of successful social, occupational, and/or academic functioning during the time away from the College. This may include the completion of any outstanding "Incompletes" on record.

After such evidence has been provided, the materials will be forwarded to the Evaluation Committee. In the case of health-related withdrawals, the student will be required to be evaluated in person by the Director of Worth Health Center and/or the Director of Psychological Services, or designates as appropriate. At the discretion of the Evaluation Committee, such evaluations may be required for other types of withdrawals as appropriate. These evaluations will provide adjunctive information to the Committee's decision-making process.

Short-term Health Related Absences

Students who are hospitalized for a period during the semester are subject to the readmission procedures described above before they may return to campus to resume their studies. In these situations the Evaluation Committee may also counsel and advise the student about options for how best to approach the remaining academic work in the semester.

The College Venture Program

The College Venture Program, supported by Swarthmore College, Bates College, Brown University, Connecticut College, Hobart and William Smith Colleges, the College of Holy Cross, Vassar College, and Wesleyan University, provides work experiences for students taking time away from college. Venture jobs are usually full-time, paid positions in a variety of fields including the environment, education, business, social change, government, and the arts. Students do not receive academic credit for these work experiences. The College Venture Coordinator is in the Career Planning and Placement Office.

SUMMER SCHOOL WORK AND OTHER WORK DONE ELSEWHERE

Students desiring to receive Swarthmore College credit for work at another school are required to obtain preliminary approval and

after the fact validation by the chair of the Swarthmore department or program concerned. Preliminary approval depends upon adequate information about the content and instruction of the work to be undertaken. Preliminary approval is tentative. Final validation of the work for credit depends upon evaluation of the materials of the course including syllabus, reading lists, written papers, and examinations by the Swarthmore department or program concerned after the work has been done. Validation may include an examination, written or oral, administered at Swarthmore. All decisions are made on a case by case basis.

An official transcript from the other school must be received by the Office of the Registrar before validated work can be recorded for credit. By College policy, in order for work done elsewhere to be granted Swarthmore College credit, the grade for that work must be the equivalent of a straight C or better, but a better than C grade does not in itself constitute Swarthmore accreditation.

Requests for credit must be made within the academic year following the term in which the work was done. Credit is lost if a student takes a course at Swarthmore that essentially repeats the work covered by the credit.

PHYSICAL EDUCATION

In the freshman and sophomore years all non-veteran students not excused for medical reasons are required to complete a four quarter (two semester) program in physical education. All students must pass a survival swimming test or take up to one quarter of swimming instruction. (See the departmental statement of the Department of Physical Education and Athletics.)

EXCLUSION FROM COLLEGE

The College reserves the right to exclude at any time students whose academic standing it regards as unsatisfactory, and without assigning any further reason therefor; and neither the College nor any of its officers shall be under any liability whatsoever for such exclusion.

Degree Requirements

BACHELOR OF ARTS AND BACHELOR OF SCIENCE

The degree of Bachelor of Arts or Bachelor of Science is conferred upon students who have met the following requirements for graduation. The candidate must have:

1. Completed thirty-two course credits or their equivalent.
2. An average grade of C in the courses counted for graduation. (See page 70.)
3. Complied with the distribution requirements and have completed at least twenty credits outside the major. (See pages 59-61.)
4. Fulfilled the foreign language requirement, having either: a) passed three years or their equivalent (as determined by the Provost) of one foreign language while in grades nine through twelve; or, b) achieved a score of 600 or its equivalent in a foreign language on a standard achievement test; or, c) passed one year of a foreign language while at Swarthmore.
5. Met the requirements in the major and supporting fields during the last two years.
6. Passed satisfactorily the comprehensive examinations in his or her major field, or met the standards set by visiting examiners for a degree with Honors.
7. Completed four semesters of study at Swarthmore College, two of which have been those of the senior year.
8. Completed the physical education requirement set forth on page 72 and in statements of the Department of Physical Education and Athletics.
9. Paid all outstanding bills and returned all equipment and library books.

MASTER OF ARTS AND MASTER OF SCIENCE

The degree of Master of Arts or Master of Science may be conferred subject to the following requirements:

Only students who have completed the work for the Bachelor's degree with some distinction, either at Swarthmore or at another institution of satisfactory standing, shall be ad-

mitted as candidates for the Master's degree at Swarthmore.

The candidate's record and a detailed program setting forth the aim of the work to be pursued shall be submitted, with a recommendation from the department or departments concerned, to the Curriculum Committee. If accepted by the Committee, the candidate's name shall be reported to the faculty at or before the first faculty meeting of the year in which the candidate is to begin work.

The requirements for the Master's degree shall include the equivalent of a full year's work of graduate character. This work may be done in courses, seminars, reading courses, regular conferences with members of the faculty, or research. The work may be done in one department or in two related departments.

A candidate for the Master's degree shall be required to pass an examination conducted by the department or departments in which the work was done. The candidate shall be examined by outside examiners, provided that where this procedure is not practicable, exceptions may be made by the Curriculum Committee. The department or departments concerned, on the basis of the reports of the outside examiners, together with the reports of the student's resident instructors, shall make recommendations to the faculty for the award of the degree.

At the option of the department or departments concerned, a thesis may be required as part of the work for the degree.

A candidate for the Master's degree will be expected to show before admission to candidacy a competence in those languages deemed by his or her department or departments most essential for the field of research. Detailed language requirements will be indicated in the announcements of departments which admit candidates for the degree.

The tuition fee for graduate students who are candidates for the Master's degree is \$23,020.

Awards and Prizes

The Ivy Award is made by the Faculty each year to the man of the graduating class who is outstanding in leadership, scholarship, and contributions to the College community.

The Oak Leaf Award is made by the Faculty each year to the woman of the graduating class who is outstanding in leadership, scholarship, and contributions to the College community.

The McCabe Engineering Award, founded by Thomas B. McCabe, 1915, is presented each year to the outstanding engineering student in the Senior Class. The recipient is chosen by a committee of the faculty of the department of Engineering.

Flack Achievement Award, established by Jim and Hertha Flack in 1985, is given to a deserving student who, during his or her first two years at the College, has demonstrated a good record of achievement in both academic and extracurricular activities and has leadership potential.

The Academy of American Poets awards \$100 each year for the prize poem (or group of poems) submitted in a competition under the direction of the Department of English Literature.

The Adams Prize of \$200 is awarded each year by the Department of Economics for the best paper submitted in quantitative economics.

The Stanley Adamson Prize in Chemistry is endowed in memory of Stanley D. Adamson '65 by his parents, June and George Adamson. It is awarded each spring to a well-rounded Junior majoring in Chemistry or Biochemistry who, in the opinion of the Department, gives most promise of excellence and dedication in the field.

The Jonathan Leigh Altman Summer Grant, given in memory of this member of the Class of 1974 by Shing-mei P. Altman '76, is awarded by the Department of Art to a junior who has strong interest and potential in the studio arts. It provides up to \$2,000 to support purposeful work in the studio arts during the summer between the junior and senior years.

American Chemical Society Award is given to the student who is judged by the Department of Chemistry to have the best performance in chemistry and overall academic achievement.

American Institute of Chemists Award is given to the student who is judged by the Department of Chemistry to have the second best record in

chemistry and overall academic performance.

Boyd Barnard Music Awards. Established in 1990, these awards subsidize the entire cost of private instrumental or vocal lessons for a limited number of advanced students. These awards, which are given by the Music faculty each semester to approximately 6-8 students, are determined through competition. Recipients participate as leaders in performance on campus, normally as members of one of the Music and Dance Department's performing organizations, or, in the case of pianists and organists, as accompanists.

The Boyd Barnard Prize. Established by Boyd T. Barnard '17, the Barnard Prize of \$1,000 is awarded by the Music faculty each year to a student in the junior class in recognition of musical excellence and achievement.

The James H. Batton '72 Award, endowed in his memory by G. Isaac Stanley '73 and Ava Harris Stanley, M.D. '72, is awarded for the personal growth or career development of a minority student with financial need.

The Paul H. Beik Prize in History of \$100 is awarded each May for the best thesis or extended paper on an historical subject by a History major during the previous academic year.

The Black Alumni Prize is awarded annually to honor the sophomore or junior minority student who has shown exemplary academic performance and community service.

The Brand Blanshard Prize, honoring Brand Blanshard, Professor of Philosophy at Swarthmore from 1925 to 1945, has been established by David H. Scull, of the Class of 1936. The award of \$100 is presented annually to the student who, in the opinion of the Department, submits the best essay on any philosophical topic.

The Sophie and William Bramson Prize is awarded annually to an outstanding student majoring in sociology and anthropology. The prize recognizes the excellence of the senior thesis, in either the course or external examinations program, as well as the excellence of the student's entire career in the department. The Bramson prize is given in memory of the parents of Leon Bramson, founding chairman of Swarthmore's Sociology-Anthropology Department, and it carries a cash stipend.

The Heinrich W. Brinkmann Mathematics Prize, honoring Heinrich Brinkmann, Professor of Mathematics, 1933-1969, was established by his students in 1978 in honor of his 80th birthday. Awards of \$100 are presented annually to the student or students who, in the opinion of the Department of Mathematics and Statistics, submit the best paper on a mathematical subject.

The Sarah Kaighn Cooper Scholarship, founded by Sallie K. Johnson in memory of her grandmothers, Sarah Kaighn and Sarah Cooper, is awarded to the member of the Junior Class who is judged by the faculty to have had, since entering College, the best record for scholarship, character, and influence.

The Anna May Courtney Award. The Anna May Courtney Award, named in honor of the late singer who performed often in Lang Concert Hall, is given each semester by the Music faculty to an outstanding voice student. The award subsidizes the entire cost of private lessons for the semester.

The Alice L. Crossley Prize in Asian Studies of \$100 is awarded to the student who, in the opinion of the Asian Studies Committee, submits the best essay on any topic in Asian Studies.

The George P. Cuttino Scholarship, established in 1992, is awarded by the Department of History to a junior for travel and research in Europe during the summer before the senior year.

The Rod Dowdle '82 Achievement Award in tennis is given annually to the male varsity tennis player who best exhibits qualities of perseverance and strong personal effort to achieve a meaningful personal or team goal.

The Robert Enders Field Biology Award, established by his friends and former students, to honor Dr. Robert K. Enders, a member of the College faculty from 1932 to 1970, is awarded to support the essential costs of the study of biological problems in a natural environment.

The Anne and Alexander Faber International Travel Fund, established by family and friends in honor of Anne Faber and in memory of Alexander L. Faber, parents of three Swarthmore graduates, provides grants for travel outside the United States and Canada for students majoring in the Humanities.

The Arthur Fennimore Award. The Arthur

Fennimore Award, named in memory of the distinguished pianist who lived in Swarthmore, is given each semester by the Music faculty to an outstanding pianist. The award subsidizes the entire cost of private lessons for the semester.

Fetter String Quartet Awards. The Elizabeth Pollard Fetter String Quartet Awards, endowed by Frank W. Fetter '20, Robert Fetter '53, Thomas Fetter '56, and Ellen Fetter Gille in memory of Elizabeth P. Fetter '25, subsidize the private instrumental lessons of four top-notch student string players at the College. Interested applicants should write to the Chair of the Music and Dance Department and should plan to play an audition at the College when coming for an interview. Membership in the Quartet is competitive. At the beginning of any semester, other students may challenge and compete for a place in the Quartet.

Friends of Music and Dance Summer Awards. Each Spring, the Music and Dance Department selects recipients of Friends of Music and Dance Summer Awards on the basis of written proposals. These awards provide stipends for attendance at summer workshops in music and in dance and for other further study in these fields.

The Renee Gaddie Award. In memory of Renee Gaddie '93, this award is given by the Music faculty to a member of the Swarthmore College Gospel Choir who is studying voice through the Music 48 (Individual Instruction) program. The award subsidizes the entire cost of voice lessons for that semester.

Edwin B. Garrigues Music Awards. Naming Swarthmore as having one of the top four music programs in the Philadelphia area, the Edwin B. Garrigues Foundation established awards to subsidize the entire cost of private instrumental or vocal lessons for a limited number of gifted students, often incoming first-year students. These awards, which are given each semester by the Music faculty to approximately 10-15 students, are determined by competition on campus and by audition (either in person or by tape) for incoming first-year students. Recipients participate as leaders in performance on campus, normally as members of one of the Music and Dance Department's performing organizations, or, in the case of pianists and organists, as accompanists.

Awards and Prizes

The Dorothy Ditter Gondos Award, bequeathed by Victor Gondos, Jr., in honor of his wife, Class of 1930, is given every other year to a student of Swarthmore College who, in the opinion of a faculty committee, submits the best paper on the subject dealing with a literature of a foreign language. The prize of \$100 or more is awarded in the spring semester. Preference will be given to essays based on works read in the original language. Awarding of the prize will be under the direction of the Literature Committee.

The John Russell Hayes Poetry Prizes are offered for the best original poem or for a translation from any language.

The Samuel L. Hayes III Award. Established in 1991 through the generosity of members of Swarthmore Alumni in Finance, the Hayes Award honors the contributions made by Samuel L. Hayes III '57, former member of the Board of Managers and the Jacob Schiff Professor of Business at the Harvard Business School. The award provides support for student summer research in economics and is administered by the Economics Department.

The Philip M. Hicks Prizes are endowed by friends of Philip M. Hicks, former Professor of English and Chairman of the Department of English Literature. They are awarded to the two students who in the opinion of the Department submit the best critical essays on any topic in the field of literature.

The Jesse H. Holmes Prize in Religion of \$150, donated by Eleanor S. Clarke of the Class of 1918 and named in honor of Jesse Holmes, Professor of History of Religion and Philosophy at Swarthmore from 1899 to 1934, is awarded to the student who, in the opinion of the Department of Religion, submits the best essay on any topic in the field of religion.

The Michael H. Keene Award, endowed by the family and friends of this member of the Class of 1985, is awarded by the Dean to a worthy student to honor the memory of Michael's personal courage and high ideals. It carries a cash stipend.

The Naomi Kies Award is given in her memory by her classmates and friends to a student who has worked long and hard in community service outside the academic setting, alleviating discrimination or suffering, promoting a democratic and egalitarian society, or resolving

social and political conflict. It carries a cash stipend.

The Kwink Trophy, first awarded in 1951 by the campus managerial organization known as the Society of Kwink, is presented by the faculty of the Department of Physical Education and Athletics to the senior man who best exemplifies the Society's five principles: Service, Spirit, Scholarship, Society, and Sportsmanship.

The Lande Research Fund. The Lande fund was established in 1992 through a gift by S. Theodore Lande to provide support for student research in field biology both on and off-campus. Grants are awarded at the direction of the Provost and the Chair of the Department of Biology.

The Eugene M. Lang Summer Initiative Awards are made each spring to 15 students who are selected by the Provost in consultation with the appropriate Division heads to support faculty-student research (five awards), independent student research (five awards), and student social service activity specifically related to research objectives and tied to the curriculum, under the supervision of faculty members (five awards).

The Genevieve Ching-wen Lee '96 Memorial Fund, established in her memory by family and friends, recognizes the importance of mutual understanding and respect among the growing number of ethnic groups in our society. The Fund supports an annual lecture by a prominent scholar of Asian American Studies and/or an annual award to two students to assist in projects pertaining to Asian American Studies.

The Leo M. Leva Memorial Prize, established by his family and friends, is awarded by the Biology Department to a graduating senior whose major is Biology and whose work in the field shows unusual promise.

The Linguistics Prizes were established in 1989 by contributions from alumni interested in linguistics. Two awards of \$100 each are presented annually, one for linguistic theory and one for applied linguistics, to the two students who, in the opinion of the Program in Linguistics, submit the best senior papers or theses in these areas.

The Norman Meinloth Field Biology Award, established by his friends and former students, to honor Dr. Norman A. Meinloth, a member of the College faculty from 1947 to 1978, is

awarded to support the essential costs of the study of biological problems in a natural environment.

The Monsky Prize was established by a gift from his children in memory of Morris Monsky who fell in love with mathematics at Boys' High and at Columbia University, and maintained the passion all his life. It is awarded to a first-year student who has demonstrated outstanding promise and enthusiasm.

The Ella Frances Bunting Extemporaneous Speaking Fund and the *Owen Moon Fund* provide income for a poetry reading contest as well as funds for visiting poets and writers.

The Kathryn L. Morgan Award. The Morgan Award was established in 1991 in honor of Sara Lawrence Lightfoot Professor Emerita of History Kathryn L. Morgan. The award recognizes the contributions of members of the African-American community at the College to the intellectual and social well-being of African-American students. The Morgan fund also supports acquisitions for the Black Cultural Center Library. The fund is administered by the Dean's Office and the Black Cultural Center in consultation with alumni.

The Lois Morrell Poetry Award, given by her parents in memory of Lois Morrell of the Class of 1946, goes to that student who is judged to have submitted the best original poem in the annual competition for this \$200 award. The Fund also supports campus readings by visiting poets.

Music 48 Special Awards. Endowed by Boyd T. Barnard '17 and Ruth Cross Barnard '19, grants are given by the Music faculty to students at the College who show unusual promise as instrumentalists or vocalists. All grants subsidize two-thirds of the cost of ten lessons, as part of the Music 48 program. For more information, please refer to Credit for Performance—Individual Instruction (Music 48).

The A. Edward Newton Library Prize endowed by A. Edward Newton, to make permanent the Library Prize first established by W.W. Thayer, is awarded annually to that undergraduate who, in the opinion of the Committee of Award, shows the best and most intelligently chosen collection of books upon any subject. Particular emphasis is laid not merely upon the size of the collection but also upon the skill with which the books are selected and upon

the owner's knowledge of their subject-matter.

The Mark L. Osterweil '94 Memorial Fund was established by his family and friends to assist students conducting historical research. Preference shall be given to independent or joint faculty-student research projects dealing with European history or U.S.-European relations.

The May E. Parry Memorial Award, donated by the Class of 1925 of which she was a member, is presented by the faculty of the Department of Physical Education and Athletics to the senior woman who by her loyalty, sportsmanship, and skill in athletics has made a valuable contribution to Swarthmore College.

The Drew Pearson Prize of \$100 is awarded by the Dean on the recommendation of the editors of *The Phoenix* at the end of each staff academic year to a member of *The Phoenix* for excellence in journalism. The prize was established by the directors of *The Drew Pearson Foundation* in memory of Drew Pearson, Class of 1919.

The David A. Peele '50 Sportsmanship Award is made to a tennis player after submission of a written essay. It is endowed by Marla Hamilton Peele in memory of her husband's love and advocacy of tennis and carries a cash stipend.

The John W. Perdue Memorial Prize, established in 1969 in memory of an engineering student of the Class of 1969, is awarded by the Department of Engineering to the outstanding student entering the junior class with a major in engineering.

The William Plumer Potter Public Speaking Fund, established in 1927, in addition to providing funds for the collection of recorded literature described on page 11, sponsors awards for the best student short stories, and is a major source of funds for campus appearances by poets and writers.

The Dinny Rath Award. The Rath Award is given to a senior woman who demonstrates the highest degree of achievement, commitment to intercollegiate athletics, high regard for fair play, and awareness of the positive values of competition. The Rath Award is administered by the Athletics Department.

Judith Polgar Ruchkin Prize Essay is an award for a paper on politics or public policy written during the junior or senior year. The paper may be in satisfaction of a course, a seminar, or an independent project, including a thesis. The

Awards and Prizes

paper is nominated by a faculty member and judged by a committee of the Department of Political Science to be of outstanding merit based upon originality, power of analysis and written exposition, and depth of understanding of goals as well as technique.

The James H. Scheuer Summer Internship in Environmental and Population Studies Endowment. Established in 1990 the Scheuer Summer Internship supports student research in environmental and public policy issues. Interns are selected by the coordinators of the Environmental Studies and Public Policy concentrations in alternate years.

The Frank Solomon, Jr. Student Art Prize Purchase Fund permits the Art Department to purchase for the College one or two of the most outstanding student works from the year's student art exhibitions.

The Hally Jo Stein Award, endowed in her memory by her brother Craig Edward Stein '78, is given to an outstanding student who in the view of the Dance faculty best exemplifies Hally Jo's dedication to the ideals of dance. It carries a cash stipend.

The Karen Dvonch Steinmetz '76 Prize, endowed in her memory by many friends and family, is awarded annually to a junior who will be applying to medical school and who demonstrates a special compassion for others.

The Peter Gram Swing Prize. At graduation time, the Peter Gram Swing Prize of \$1,000 is awarded by the Music faculty to an outstanding student whose plans for graduate study in music indicate special promise and need. The endowment for the prize was established in the name of Ruth Cross Barnard '19.

The Pat Tarble Summer Research Fund. Established in 1986 through the generosity of Mrs. Newton E. Tarble, the Tarble Summer Research Fund supports undergraduate research. The fund is administered by the Office of the Provost.

The Melvin B. Troy Prize. The Melvin B. Troy Prize of \$250 is given each year for the best, most insightful paper in Music or Dance, or composition or choreography by a student, judged by the Music and Dance Department. The prize was established by the family and friends of Melvin B. Troy '48.

The P. Linwood Urban, Jr. Prize, honoring Lin Urban, Professor of Religion at Swarthmore

from 1957 to 1989, is awarded annually to a graduating senior planning to continue religious studies either in seminary or graduate school.

The Albert Vollmecke Engineering Service Award. Established in 1990 in memory of Albert Vollmecke, father of Therese Vollmecke '77, the Vollmecke prize is awarded for service to the student engineering community. The fund is administered by the Engineering Department.

The Eugene Weber Memorial Fund. The Eugene Weber Fund was established in honor of the late Eugene Weber, professor of German. The Weber Fund supports foreign study by students of German language and literature.

FACULTY AWARD

The Flack Faculty Award is given for excellence in teaching and promise in scholarly activity to a member of the Swarthmore Faculty, to help meet the expenses of a full year of leave devoted to research and self-improvement. This award acknowledges the particularly strong link that exists at Swarthmore between teaching and original scholarly work. The award itself is to be made by the President upon the recommendation of the Provost and the candidate's academic department. This award is made possible by an endowment established by James M. Flack and Hertha Eisenmenger Flack '38.

Fellowships

Three fellowships (the *Leedom*, *Lippincott*, and *Lockwood* Fellowships—see below) are awarded annually by the Faculty, and two fellowships (the *Mott* and *Tyson* Fellowships—see below) are awarded by the Somerville Literary Society, to seniors or graduates of the College for the pursuit of advanced work. These awards are made on recommendation of the Committee on Fellowships and Prizes for a proposed program of study which has the approval of the Faculty. Applications must be in the hands of the Committee by March 23. The Committee considers applicants for all of these fellowships for which they are eligible and makes recommendations which overall do not discriminate on the basis of sex. These fellowships are:

The Hannah A. Leedom Fellowship founded by the bequest of Hannah A. Leedom.

The Joshua Lippincott Fellowship founded by Howard W. Lippincott, of the Class of 1875, in memory of his father.

The John Lockwood Memorial Fellowship, founded by the bequest of Lydia A. Lockwood, New York, in memory of her brother, John Lockwood. It was the wish of the donor that the fellowship be awarded to a member of the Society of Friends.

The Lucretia Mott Fellowship, founded by the Somerville Literary Society and sustained by the contributions of Swarthmore alumnae. It is awarded each year to a woman senior who is to pursue advanced study in an institution approved by the Committee.

The Martha E. Tyson Fellowship, founded by the Somerville Literary Society in 1913 and sustained by the contributions of Swarthmore alumnae. It is awarded each year to a woman senior or graduate who plans to enter elementary or secondary school work. The recipient of the award is to pursue a course of study in an institution approved by the Committee.

Other fellowships are awarded under the conditions described below:

Susan P. Cobbs Prize Fellowship, established to honor the memory of Dean Susan P. Cobbs, is awarded at the discretion of the Classics Department to a student majoring in Classics for study in Greece or Italy.

The General Electric Foundation Graduate Fellowship, to be awarded to a graduating senior for the first year of graduate work, is intended to encourage outstanding scholars to pursue an

academic career. The recipient, who must be a United States citizen or permanent resident, will receive the amount necessary to cover tuition, fees, and subsistence allowance for study directed toward a PhD in Engineering or Computer Science at another institution in the United States. The precise amount of each fellowship will be based on the costs and policies of the university and department chosen for graduate work.

Phi Beta Kappa Fellowship. The Swarthmore Chapter of Phi Beta Kappa (Epsilon of Pennsylvania) awards a Fellowship for graduate study to a senior who has been elected to Phi Beta Kappa and has been admitted to a program of advanced study in some branch of the liberal arts.

The Thomas B. McCabe, Jr. and Yvonne Motley McCabe Memorial Fellowship. This Fellowship, awarded annually to a graduate of the College, provides a grant toward the first year of study at the Harvard Business School. Yvonne and Thomas B. McCabe, Jr. were for a time residents of Cambridge, Massachusetts, and Mr. McCabe received the M.B.A. from Harvard and was a Visiting Lecturer there. In selecting the recipient, the Committee on Fellowships and Prizes follows the standards that determine the McCabe Achievement Awards, giving special consideration to applicants who have demonstrated superior qualities of leadership. Young alumni and graduating seniors are eligible to apply.

Mellon Minority Undergraduate Fellowship Program. The Andrew W. Mellon Foundation has provided a grant to establish an undergraduate fellowship program intended to increase the number of minority students who choose to enroll in Ph.D. programs and pursue an academic career. The Foundation's grant provides term and summer stipends for students to work with faculty mentors, as well as a loan-forgiveness component to reduce undergraduate indebtedness for those Fellows who pursue graduate study. The Fellowships are limited to the Humanities, a very few of the Social Sciences, and selected Physical Sciences. A faculty selection committee invites nominations of sophomore students in February and awards the Fellowships in consultation with the Dean and Provost.

The John W. Nason Community Service Fellowship. The John W. Nason Community

Fellowships

Service Fellowship celebrates the contributions of Swarthmore's eighth president by supporting students pursuing off-campus community service related to their academic program. The Nason Fellowship was initiated by members of the Class of 1945 in anticipation of their 50th Reunion. The Nason Fellowship is administered by the Swarthmore Foundation.

The J. Roland Pennock Undergraduate Fellowship in Public Affairs. The Fellowship, endowed by friends of Professor J. Roland Pennock at his retirement in 1976 and in recognition of his many years of distinguished teaching of Political Science at Swarthmore, provides a grant for as much as \$2,500 to support a substantial research project (which could include inquiry through responsible participation) in public affairs. The Fellowship, for Swarthmore undergraduates, would normally be held off-campus during the summer. Preference is given to applicants from the Junior Class.

Teachers for Tomorrow Fellowships are offered to ten outstanding graduating seniors from member colleges of the Venture Consortium (Swarthmore College, Bates College, Brown University, Connecticut College, Hobart and William Smith Colleges, the College of Holy Cross, Vassar College, and Wesleyan University). The program is designed to provide recent graduates, from all academic majors, with a unique opportunity to work in public education without requiring that they be certified to teach. Fellows will work alongside exceptional teachers in alternative East Harlem public schools that are nationally recognized as meeting the challenge of educating children in the inner city.

FACULTY FELLOWSHIPS

The Mary Albertson Faculty Fellowship was endowed by an anonymous gift from two of her former students, under a challenge grant issued by the National Endowment for the Humanities. It will provide an annual award of a semester's leave at full pay, to support research and writing by members of the humanities faculty. Mary Albertson joined the Swarthmore faculty in 1927 and served as chairman of the history department from 1942 until her retirement in 1963. She died in May, 1986.

The George Becker Faculty Fellowship was endowed by Ramon Posel '50 under a challenge from the National Endowment for the Humanities, in honor of this former member of the English department and its chairman from 1953-70. The fellowship will provide a semester of leave at full pay for a member of the humanities faculty to do research and write, in the fields of art history, Classics, English literature, history, linguistics, modern languages, music, philosophy, or religion, but with preference to members of the department of English literature.

The Brand Blanshard Faculty Fellowship is an endowed Faculty fellowship in the humanities established in the name of philosopher and former faculty member Brand Blanshard. Blanshard taught philosophy at Swarthmore from 1925 to 1944. The Fellowship will provide a semester leave at full pay for a member of the humanities faculty to do research and to write. Upon recommendation of the Selection Committee, there may be a small additional grant for travel and project expenses. Any humanities faculty member eligible for leave may apply. Fellows will prepare a paper about the work of their leave year and present it publicly to the College and wider community. The Blanshard Fellowship is made possible by an anonymous donor who was Blanshard's student at Swarthmore, and a challenge grant from the National Endowment for the Humanities.

The Eugene M. Lang Faculty Fellowship is designed to enhance the educational program of Swarthmore College by contributing to faculty development, by promoting original or innovative scholarly achievement of faculty members, and by encouraging the use of such achievements to stimulate intellectual exchange among scholars. The Fellowship will provide financial support for faculty leaves through a grant of about one half the recipient's salary during the grant year. Upon recommendation of the Selection Committee, there may be a small additional grant for travel and project expenses and for library book purchases. The Selection Committee shall consist of the Provost, three Divisional Chairmen, and three others selected by the President, of whom at least two must be Swarthmore alumni. Any faculty member eligible for leave may apply, and up to four may be chosen. Fellows will be expected to prepare a paper or papers resulting

from the work of their leave year, presented publicly for the College and wider community. The Selection Committee may support wholly or in part the cost of publishing any of these papers. These fellowships are made possible by an endowment established by Eugene M. Lang '38.

V

Courses of Instruction

The course (semester course) is the unit of credit. Seminars and colloquia are usually given for double credit, i.e., equivalent to two courses. A few courses are given for half-course credit.

Courses are numbered as follows:

- 1 to 10 — introductory courses
- 11 to 99 — other courses (Some of these courses are not open to freshmen and sophomores.)
- 100 to 199 — seminars for upperclass persons and graduate students.

Year courses, the number of which are joined by a hyphen (e.g., 1-2) must be continued for the entire year; credit is not given for the first semester's work only, nor is credit given for the first semester if the student fails the second semester.

Course listings in this catalogue are intended to facilitate planning. They represent offerings projected for a two-year period, but are subject to change. A better guide to course offerings in any particular semester is the schedule of classes available before enrollment for that semester.

Art

MICHAEL W. COTHREN, Professor of Art History
RANDALL L. EXON, Professor of Studio Art and Chair
CONSTANCE CAIN HUNGERFORD, Professor of Art History
T. KAORI KITAO, Professor of Art History²
BRIAN A. MEUNIER, Professor of Studio Art³
MARIBETH GRAYBILL, Associate Professor of Art History
SYD CARPENTER, Assistant Professor of Studio Art
CELIA B. REISMAN, Assistant Professor of Studio Art
PAUL H. KING, Visiting Lecturer in Studio Art
GAIL MAXWELL, Visiting Lecturer in Art History⁵
SANDY SORLEIN, Visiting Lecturer in Studio Art⁵
JUNE V. CIANFRANA, Administrative Assistant

2 Absent on leave, spring semester, 1999.

3 Absent on leave, 1998-99.

5 Spring semester, 1999.

The Department of Art offers historical, critical, and practical instruction in the visual arts. Courses in art history consider questions having to do with the forms, traditions, meanings, and historical contexts of works of art and architecture; studio arts courses explore practical, theoretical processes which arise in the creation of objects in various media.

List Gallery: The List Gallery was established to enhance the art curriculum. Each year the gallery mounts six or seven exhibitions of both emerging and nationally-known artists; the months of April and May feature a series of Senior Thesis exhibitions by art majors and an Alumni Weekend exhibition takes place in June. Together with the Gallery Director, the Exhibition Committee selects exhibitions that complement and strengthen the studio arts and art history curriculum. Exhibiting artists come to campus as visiting critics and lecturers, giving students access to a broad range of media and interpretation. A selection of works from Swarthmore's permanent collection can be viewed in the inner room of the List Gallery. Occasionally, the gallery presents historical exhibitions that offer art history students opportunities for direct observation and analysis.

Both contemporary and historical exhibitions demonstrate excellence in the visual arts and engage the college community in an ongoing dialogue. Because artists raise important questions about history, society, and identity, major

exhibitions offer opportunities for interdisciplinary study and are often co-sponsored by other departments. Located in the Lang Performing Arts Center, the List Gallery's 1,200 square foot facility was made possible in part through generous gifts by Vera List and by Eugene and Theresa Lang. The Phillip Bruno Fine Art Fund supports work with the permanent collection. The Ann Trimble Warren Exhibition Fund supports List Gallery exhibitions.

Heilman Artist: Each year the Department of Art invites a distinguished artist to the College as the Marjorie Heilman Visiting Lecturer. The work of the invited artist is exhibited in the List Gallery, and while on campus, she or he gives a public lecture, critiques work in the studios, and meets with both majors and non-majors.

Lee Frank Lecture: See p. 14.

Benjamin West Lecture: See p. 14.

Jonathan Leigh Altman Scholarship: See p. 27.

Jonathan Leigh Altman Summer Grant:

See p. 74.

Frank Solomon, Jr. Student Art Prize: See p. 78.

REQUIREMENTS AND RECOMMENDATIONS

Prerequisites: ARTH 1 is the prerequisite for most other art history courses in the Department. STUA 1 is the prerequisite for all

studio arts courses, *even for seniors*; it may be waived only by presenting a portfolio for evaluation. Students are advised that graduate work in art history requires a reading knowledge of at least German and French. The Department approves a credit for Advanced Placement, grade 5 in Art History and Studio Arts (with submission of a portfolio), but it does not normally waive the prerequisite.

Study Abroad: The Art Department strongly encourages those with an interest in art to consider incorporating foreign study—either during a summer or a regular academic term—into their Swarthmore program. Important examples of art and architecture are scattered throughout the world, and the encounter with works still imbedded in their original context is vital to an understanding of their historical and contemporary significance. Past experience has shown, however, that art courses in most foreign study programs fall considerably below the academic standards of comparable courses at Swarthmore. To aid students in their attempt to gain Swarthmore credit for study abroad, the Department has established the following guidelines. (1) No request for transfer credit in art history will be considered unless a student has already taken ARTH 1 (the normal prerequisite for work in art history at Swarthmore) before taking a course abroad. (2) Students who are interested in bettering their chances of gaining a full Swarthmore credit for a course taken in a foreign program are advised to attempt to arrange with a Swarthmore professor, *before leaving the campus*, to write, if necessary, a supplementary research paper as a part of the course. Such papers will be evaluated by the Department as part of the process of determining transfer credit. (3) Students interested in Studio Arts, Design, and Architecture are particularly encouraged to consider the Pitzer College in Parma, Italy, which offers courses at the Istituto dell'Arte Paolo Toschi; a semester of Italian preceding going broad is well advised.

The Course Major in Art History: Art History majors are required to take ARTH 1, ARTH 2, one credit in Asian Art, ARTH 98, five other credits in art history, and one course in studio arts. The five elective credits must include (1) one credit in Western Art before 1700, (2) one credit in Western Art after 1700, and (3) one seminar (2 credits). The comprehensive con-

sists of a special essay, completed in conjunction with ARTH98 in Spring of the Senior year.

The Course Major in Art: The combined program of the Course Major in Art consists of four courses in Art History (ARTH 1, ARTH 2 or ARTH 3 or another course on art before 1700, and three elective credits) and seven courses in Studio Arts (including courses in drawing, another 2-D medium, and a 3-D medium). The comprehensive consists of a Senior Exhibition and written artist statement prepared during the Fall and Spring of the senior year. Studio Arts Facilities are closed during Summer and normally during October, Winter, and Spring Holidays.

Majors and Minors in The External Examination Program: Students may formulate Honors Programs as either majors or minors, in either art history or art. For details consult guideline available in the department office.

Art History

1. Critical Study in the Visual Arts.

This introduction to the study of the visual arts will investigate formal analysis, iconography, and methods of historical interpretation, using examples of art and architecture drawn from a variety of cultures and historical periods. The course will emphasize learning to see vividly and systematically and to write accurately about what is seen. Topics for discussion will include technique and production, visual narrative and didacticism, patronage and biography, and approaches such as psychoanalysis, Marxism, and feminism.

Primary distribution course.

Each semester. Staff.

2. Western Art.

An historical introduction to the forms, meanings, functions, and contexts of Western art and architecture from ancient Mediterranean civilizations to the 20th century.

No prerequisite.

Fall semester. Kitao.

3. Asian Art.

A selective introduction to the forms, functions, and contexts of the arts of Asia, from prehistoric to early modern times. The course

aims to introduce both a wide geographic range of Asian regional cultures (from India, the Himalayas and Southeast Asia, to China and Japan), as well as basic art historical strategies for analyzing various media (architecture, sculpture, painting, and the decorative arts). Fulfills the requirement for a foundation course in a program in Asian Studies.

No prerequisite; open to Freshmen.

Spring semester. Maxwell.

14. Medieval Art and Architecture.

An introduction to European art and architecture from late antiquity to the twelfth century. Special attention will be given to the "Romanization" of Christian art under Constantine, the Celtic Christian heritage of the British Isles and its culmination in the Book of Kells, Justinianic Constantinople and Ravenna, the Carolingian Renaissance, Romanesque sculpture as ecclesiastical propaganda, the efflorescence of monastic art under the Cluniacs and Cistercians, and the neoplatonic aesthetic that gave birth to the Gothic.

Prerequisite: ARTH 1.

Fall semester. Cothren.

17. Nineteenth-Century European Art.

Art of the revolutions of 1789, 1830, and 1848 (David, Delacroix, Courbet); addresses to modern life by the Pre-Raphaelites and by Manet, Degas, and such Impressionists as Monet and Morisot; challenges to realism by Rodin, Cezanne, van Gogh, and Gauguin. The work of individual artists considered with reference to social, political, economic, and cultural factors and with reference to current theoretical debates regarding interpretation.

Fall semester. Hungerford.

18. Twentieth-Century Western Art.

Painting and sculpture in Europe from artists such as Picasso, Matisse, Kandinsky, Mondrian, and the Russian avant-garde, through reactions to the Great War, as in Duchamp and the Surrealists; then in the United States from Abstract Expressionism to the present. Consideration of relevant social, political, economic, and cultural factors and to the developing critical discourse.

Spring semester. Hungerford.

25. Arts of Africa.

Not offered 1998-99.

29. Film: Form and Signification.

Study of film as visual and iconic discourse as opposed to narrative text, dealing with the principles of framing, editing, and mise-en-scene understood as critical tools and as a historical evolution from the silent days to Godard and Bergman. Topics include: rise of photography; magic shows and the comic strip; silent comedy and the musical; cinema and painting, Renoir and Italian Neorealism, and Dreyer and semiotics of cinema. Two lectures and a screening session.

No prerequisite. Sophomore and above. Limited to 20.

Not offered 1998-99. Kitao.

31. Japanese Civilization and Culture.

(Cross-listed as History 72.) An interdisciplinary introduction to traditional Japan, from its origins through the nineteenth century. Japanese political and social history will be viewed together with its visual and material culture. Topics covered include Japan's prehistoric origins, state formation under the influence of Chinese culture, the evolution of the imperial system and samurai class, early contacts with the West, and the distinctive urban culture of the merchant class.

No prerequisite; open to freshmen. Fulfills the requirement for a foundation course for a program in Asian Studies; counts as distribution for Humanities.

Fall semester. Graybill and Li.

32. Arts of the Buddhist Temple in Japan.

A study of the arts associated with the Buddhist temple in Japan, from the 7th through 13th centuries.

Offered occasionally. Graybill.

34. Japanese Art of the Early Modern Period: Painting and Prints, 1550-1850.

An examination of major schools and genres of painting and prints of Japan's early modern period.

Not offered 1998-99. Graybill.

38. Ritual and Image in the Buddhist Tradition.

(Cross-listed as Religion 28.) An interdisciplinary exploration of the unity and variety of Buddhist traditions of Asia, within their historical development. Our goal will be to under-

stand Buddhist visual arts (including narrative and iconic sculpture and painting, and shrine and monastic architecture) and material culture (such as shrines and their relics, pilgrimage places, mummies and portraits, and texts), in relation to ritual practice.

Prerequisite: ARTH 1 or 3, or RELG 1, 8, 9, 12, or 13. Counts toward a program in Asian Studies. Honors candidates may combine this course with ArH 38A, a seminar attachment.

Spring semester. Graybill.

38A. Seminar attachment to ARTH 38 for honors preparation.

Prerequisite: Permission of the instructor.

38B. Buddhist Art: Icon, Narrative and Sacred Space.

A survey of the rich variety of Buddhist architecture, sculpture, and painting, in South, Southeast, Central and East Asia.

Prerequisite: Sophomore standing or above.

Not offered 1998-99. Graybill.

39. Meiji Japan: Ideology and Representation.

(Cross-listed as East Asian Studies H290B at Haverford College.) An interdisciplinary study of the ideology of the construction of Japan as a modern nation.

Not offered 1998-99. Graybill and Mizenko.

46. Monasticism and the Arts in the Christian Middle Ages.

(Also listed as Religion 29.) This course will investigate the significance of Christian monastic communities as major artistic centers during the middle ages with an emphasis on the way the social context of production and consumption effected the works of art themselves and the way we have traditionally chosen to study them.

Prerequisite: ARTH 1.

Not offered 1998-99. Cothren and Ross.

47. Special Topics in Medieval Art.

In a colloquium setting students will study in depth and from a variety of critical perspectives a small set of medieval works of art. In Fall 1999 the focus will be on visual narrative.

Prerequisite: ARTH 1.

Fall semester. Cothren.

51. Renaissance Picture.

Study of the picture as conceived and shaped in the Renaissance and further developed thereafter, examining topics of pictorial representation both in theory and in practice.

Prerequisite: ARTH 1 or 2.

Not offered 1998-99. Kitao.

53. Michelangelo and His Times.

Michelangelo, his art and thought, his Quattrocento sources, and his relationship with Leonardo, Raphael, the Mannerists, and his patrons in 16th Century Italy.

Prerequisite: ARTH 1 or 2.

Fall semester. Kitao.

55. Rembrandt and His Times.

See description for ARTH 155.

Not offered 1998-99. Kitao.

61. Everyday Things.

Historical and cross-cultural study of artifacts in our everyday visual and physical environment, from paper clips and nails to furniture and appliances, as well as machines and apparel items—how they are conceived, made, seen, used, and interpreted; design theory and semiotics, handicraft and manufacture; standardization; marketing, packaging, and advertising.

Sophomore and above.

No prerequisite.

Not offered 1998-99. Kitao.

62. Streets and Passages.

Historical and cross-cultural study of architectural and urban spaces in the light of semiotics and design theory. How spaces and their components are conceived, constructed, experienced, used, and interpreted.

No prerequisite. Sophomore and above.

Not offered 1998-99. Kitao.

64. Philadelphia and American Architecture.

American architecture, especially in Philadelphia, with European parallels: Palladianism, historic revivals and Victorian architecture, the Anglo-American house, the skyscraper, Art Nouveau, Art Deco, the International Style, Kahn and Venturi, and Postmodernism. Lectures and four guided tours; papers.

Prerequisite: ARTH 1 and/or ARTH 61 or 62.

Fall semester. Kitao.

74. History of Photography.

Spring semester. Hungerford.

75. Special Studies in Cinema.

Study of selected films in wide-ranging genre but with a special focus, encompassing semiotics and other critical theories and problems.

Prerequisite: ARTH 1and/or ARTH 9.

Offered occasionally. Kitao.

86. Architectural Theory.

Special study on traditional and contemporary architectural thoughts: classicism, functionalism, systems design, semiotics, structure and decoration, and other topics.

Prerequisite: ARTH 61 or 64 and instructor's approval.

Offered occasionally. Kitao.

96. Directed Reading.

Staff.

98. Senior Workshop: Art History.

This capstone colloquium for art history majors will explore various approaches to historical interpretation of the visual arts. Attention will be given to art historiography—both theory and practice—through the critical reading of some important recent texts which propose and/or challenge novel interpretive strategies from a variety of perspectives. As a part of the course, students will write the senior essay which constitutes the comprehensive requirement for the art history major.

(Students who are not art history majors but have taken ARTH 1 and three other credits in art history will be admitted to this course with the permission of the instructor.)

Spring semester. Cothren.

180. Thesis.

A two-credit thesis normally carried out in the Fall of the Senior Year. The topic must be submitted and approved by the instructor-in-charge before the end of the Junior Year.

Staff.

199. Senior Honors Study.

Staff.

SEMINARS

Unless otherwise noted the prerequisite for all seminars is two courses in ARTH including ARTH 1.

132. Arts of the Buddhist Temple in Japan.

See description for ARTH 32.

Offered occasionally. Graybill.

135. Eighteenth-Century Japanese Painting and Its Contexts.

An exploration of intersections between the visual arts and the political, social, and intellectual history of 18th-century Japan.

Not offered 1998-99. Graybill.

136. Japanese Popular Culture of the Edo Period: Sex, Lies, and Mass Marketing.

A study of the performance and commodification of gender and class in the literature, illustrated books and prints, kabuki theatre, and prostitution quarters of 17th and 18th century Japan.

Not offered 1998-99. Graybill.

138. Islamic Painting.

After a brief general introduction to Islamic art, the seminar will explore the history and evolution of the pictorial narrative tradition within Islamic culture from A.D. 691 to A.D. 1548.

Offered occasionally. Cothren.

145. Gothic Art and Architecture.

The formation of "The Gothic" around 1140 and its development and codification in the Ile-de-France to the middle of the 13th century; monasteries, cathedrals, and chapels; neoplatonism and the new aesthetic; "court style" and political ideology; structural technology and stylistic change; patronage and production; contextualizing liturgy and visualizing dogma.

Spring semester. Cothren.

153. Michelangelo and His Times.

See description for ARTH 53.

Not offered 1998-99. Kitao.

155. Rembrandt and His Times.

Rembrandt, Dutch Painting, and the nature of picture making: Protestantism and mercantile

milieu, portraiture and self-portraiture, the genre, optics and painting, the print as medium; and theatricality, narrative and realism.

Not offered 1998-99. Kitao.

164. Modern Art.

The critical debate addressing artists such as Courbet, Manet, Degas, Gauguin, Cezanne, Picasso, and Pollock and the issue of "Modernism" in nineteenth- and twentieth-century painting.

Fall semester. Hungerford.

Studio Arts

1. Foundation.

A theoretical and practical exploration of the elements of visual thinking. Through weekly assignments, primarily in drawing, attention will be given to the following elements of pictorial and spacial design: value, color, perspective, proportion, figure/ ground and volume/mass. (This course is a prerequisite for all other courses in studio art.)

Each semester. Staff.

3. Drawing.

Work in various media directed toward a clearer perception of space, light and form. A course for all levels of ability. Weekly outside drawing problems and a final project.

Not offered 1998-99. Reisman.

4. Multimedia Sculpture.

This course will cover a wide range of contemporary sculptural concepts and techniques. These techniques will include: clay modeling, multi-media assemblage, casting, and construction.

Not offered 1998-99. Meunier.

5. Ceramics.

A wide spectrum of approaches to clay for functional as well as sculptural expression. Students are encouraged to work towards developing their own vocabulary of design and form within a series of class projects while acquiring a fundamental understanding of processes, contemporary developments and traditions. Open to beginning, intermediate, and advanced students.

Not offered 1998-99. Carpenter.

6. Photography.

Introduction to the technical processes and visual and theoretical concepts of photography, both as a unique medium and as it relates to other forms of non-photographic composition.

Prerequisite: STUA 1, even for seniors.

Spring semester. Staff.

8. Painting I.

Investigation in oil paint of pictorial structure and of the complex nature of color—how it can define surface, space, light, temperature and mood.

Fall semester. Exon.

9. Life Modeling.

This course will cover the principles and practice of life modeling through the study of the human form. Working in clay, we will explore a range of sculptural approaches, from the traditional study of anatomy, to the more contemporary use of the body form as abstracton.

Spring semester. Carpenter.

10. Life Drawing.

Work in various media directed toward a clearer perception of the human form. The class is centered on drawing from the model, and within this context. The elements of gesture, line, structure, and light are isolated for the purpose of study.

Spring semester. Exon.

11. Watercolor.

A complete exploration of water soluble media with an emphasis on transparent, gum arabic based watercolor. Other materials and techniques will include: ink wash, gouache, silk colors, collage, hand-made papers, matting, and pen-making using reeds and quills. When in the studio the class will work from the figure and still life. The central motif, however, will be painting the landscape. Whenever possible we shall work outdoors. There will be occasional field trips to locales other than the campus.

Not offered 1998-99. Exon.

15. The Potter's Wheel.

This class provides experience on the potter's wheel through intensive practice, demonstrations and slide lectures. Students gain proficiency as well as insights into the traditional and contemporary application of the art of the

potter. Weekly critiques of homework assignments encourage students to consider design and craftsmanship in their developing work. Open to beginning and intermediate students.

Spring semester. Carpenter.

19. Works On Paper.

Investigations into printmaking and other materials that use paper as a support. Emphasis will be placed on drawing concepts. In addition to class assignments, students will be encouraged to work on independent projects.

Fall semester. Reisman.

20. Advanced Studies.

- 20A. Ceramics
- 20B. Drawing
- 20C. Painting
- 20D. Photography
- 20E. Sculpture
- 20F. Printmaking

These courses are designed to usher the intermediate and advanced student into a more independent, intensive study in one or more of the fields listed above. A discussion of formal issues generated at previous levels will continue, with greater critical analysis brought to bear on stylistic and thematic direction. Each student will enroll under the guidance of a professor in the chosen medium, to whom a written statement of purpose must be submitted at the time of pre-registration. In addition to individual conferences, a colloquium meeting may be scheduled every two or three weeks. During these gatherings the entire studio faculty, (and occasional visiting artists), all advanced study students, and art majors will critique and share issues of artistic intent.

Note: Although this course is for full credit, a student may petition the studio faculty for a ½ credit semester.

Prerequisite: Foundation and at least one previous course in the chosen medium.

Each semester. Staff.

21. African Pot.

Traditional forms in a wide range of African pottery making will serve as models for this studio course in beginning ceramics. Students will learn coil building and surface treatments reflective of African stylistic and formal influences. Through exploration of technical, iconographic and aesthetic considerations, stu-

dents will gain insight into the range of visual languages represented in this art form. Guest artists will present lectures and demonstrations.

Fall semester. Carpenter.

25. Advanced Studies II.

Continuation of STUA 20 on a more advanced level.

Prerequisite STUA 20. Staff.

30. Senior Workshop.

A course designed to strengthen critical, theoretical, and practical skills on an advanced level. Critiques by the resident faculty and visiting artists, as well as group critiques with all members of the workshop, will guide and assess the development of the students' individual directed practice in a chosen field. Assigned readings and scheduled discussions will initiate the writing of the thesis for the senior exhibition. (This course is required of senior art majors.)

Fall semester. Carpenter.

40. Senior Advanced Study.

During the spring semester of the senior art major, students will write their senior artist statement and mount an exhibition in the Vera List Gallery of the Performing Arts Center. The artist statement is a discussion of the development of the work to be exhibited. The exhibition represents the comprehensive examination for the studio art major. Students may choose advanced study credit for work completed for the comprehensive. Gallery exhibitions are reserved for studio art majors who have passed the senior workshop and fulfilled all requirements including the writing of the senior art major statement.

Staff.

199. Senior Honors Study.

Staff.

Asian Studies

Coordinator: **MARIBETH GRAYBILL** (Art)

Faculty: **Alan Berkowitz** (Modern Languages and Literatures, Chinese)

Maris Gillette (Sociology/Anthropology)*

Bruce Grant (Sociology/Anthropology)*

Steven Hopkins (Religion)

Haili Kong (Modern Languages and Literatures, Chinese)

Gerald Levinson (Music)

Lillian Li (History)

Gail Maxwell (Art History)⁵

Jeanne Marecek (Psychology)*

Deepa Ollapally (Political Science)⁵

Stephen Piker (Sociology/Anthropology)*

Donald Swearer (Religion)³

Larry Westphal (Economics)

Tyrene White (Political Science)

Thomas Whitman (Music)

3 Absent on leave, 1998-99.

4 Fall semester, 1998.

5 Spring semester, 1999.

* Affiliated faculty (do not teach courses on Asia but available for independent study projects).

Asian Studies is an interdisciplinary program that aims to introduce students to the immeasurably vast range of human experience, both historical and contemporary, on the Asian continent, from South Asia (India, Sri Lanka, and the Himalayas), to peninsular and insular Southeast Asia, to East Asia (China, Korea, and Japan). Courses on Asia are offered in the Departments of Art, Economics, History, Modern Languages and Literatures (Chinese), Music and Dance, Political Science, Religion, and Sociology/Anthropology. Asian Studies majors construct individualized programs of study, with a focus on either a particular country or region, or on a comparative theme—such as classical traditions in Asian literature and art; Buddhist studies; Asian nationalisms and the emergence of nation-states; or the political economy of Asian development (to name only a few of the possibilities). In all cases, however, the core of the major lies in exposure to multiple regions, for cross-cultural comparisons, and multiple disciplines.

Students interested in Asian Studies are invited to meet with the Coordinator well in advance of preparing a Sophomore paper, to

discuss how to plan an individualized program with intellectual coherence and rigor. Advance planning is especially critical to integrate study abroad into the major.

Language Study & Study Abroad

While not required, majors are strongly urged to consider the study of an Asian language and a period of study abroad in Asia. At Swarthmore we presently offer only Chinese, but it is possible to study Japanese at Haverford, and many other Asian languages can be studied at U Penn during the regular academic year; in summer language programs; or abroad. Language courses above the first-year level count toward the major. The Asian Studies faculty can recommend academically rigorous programs in several Asian countries, often tailored to a student's particular interest. Study abroad is the ideal arena for intensive language study; non-language courses taken abroad may also be applied toward the major, if credit has been granted by the College, subject to the approval of the Asian Studies Committee. However, normally at least half of the credits toward a student's Asian Studies major should be taken at Swarthmore.

REQUIREMENTS

The Asian Studies major inherently makes greater demands than a departmental major, for the final responsibility falls on each student to make connections between courses that differ widely in content and method. When considering applicants to the major, therefore, the Asian Studies Committee looks for evidence of intellectual flexibility and independence, as well as the demonstrated ability to do work at the B- level or above in at least two Asia-related courses, in different departments.

The Asian Studies Course Major

The major in Asian Studies consists of a minimum of 9 credits, with requirements and distribution as follows:

- (1) Geographic Breadth: Coursework must be completed concerning more than one of the regions of Asia (South, Southeast, East Asia). This can be accomplished by taking at least two courses that are pan-Asian or comparative in scope; or by taking at least one full course on a country other than that of the principal focus in an individual student's program.
- (2) Disciplinary Breadth: Classes must be taken in at least three different departments.
- (3) Foundations: For a broad background in Asian Studies, 2 credits must be taken from the following range of introductory courses: ARTH 3 (Asian Art); CHIN 16/LITR 16Ch (Substance, Shadow, and Spirit in Chinese Literature and Culture); CHIN 18/LIT 18Ch (The Classical Tradition in Chinese Literature); HIST 9a (Chinese Civilization); ARTH 31/HIST 72 (Japanese Civilization and Culture); MUSI 8 (Music of Asia); RELG 8 (Patterns of Asian Religions); RELG 9 (The Buddhist Tradition); RELG 12 or 13 (History, Religion, and Culture of India, I and II); or SOAN 41 (Comparative Studies of China and Japan).
- (4) Intermediate and Advanced Work: A minimum of 6 credits of work must be completed at the intermediate or advanced level in at least two departments. This may include the study of an Asian language above the first year, to a maximum of four credits.
- (5) 1- or 2- credit senior thesis in the student's area of specialization, followed by an oral exam. The thesis is not required for Honors majors, but they may write a two-credit thesis for one of their exams. Students must enroll for the thesis no later than fall semester of the senior year.

The Asian Studies Honors Major

The Honors Major in Asian Studies consists of a minimum of 10 credits (two foundation courses plus four preparations). To be admitted to the honors major, students should have completed at least two Asia-related courses, in different departments, at the level of B+ or above.

- (1) Geographic and disciplinary breadth requirements are the same as those for the course major.
- (2) Because Asian Studies is an interdisciplinary major, all four fields presented for external examination must be Asian Studies subjects. The student has the option of omitting a minor field designation. Alternatively, one of the four fields can be designated as a minor, in which case the student must fulfill all the requirements of that department for an honors minor.
- (3) Honors preparations must represent at least two different departments.
- (4) Honors preparations in Asian Studies may consist of 2-credit seminars, designated pairs of courses, 1-credit attachments to designated 1-credit courses, a 1-credit thesis in conjunction with a 1-credit course, or a 2-credit thesis. With the advance approval of the Asian Studies committee, course work or research done in study abroad may be incorporated into the preparation.
- (5) Senior Honors Study for Majors, normally done in the Spring semester of the senior year, will consist of one of the following options, each worth 0.5 credits. Which option a student chooses will be determined in close consultation with the Asian Studies Program Chair. (Note: the examples below assume that one preparation in Asian Studies will be put forth as a Minor in a discipline. However, it is also possible to do four preparations in Asian Studies, without a minor, in which case

the maximum length of the SHS essay will increase to 10,000 words.)

- (a) the integrative paper: an essay that integrates the work of multiple preparations, examining the issues dealt with in each in light of the methods and content of the other. (Note: If all three preparations are covered, the essay should be 7000-8000 words in length. If only two of the preparations are considered, the integrative essay should be 5000 to 6000 words in length, and a separate paper, normally a revised seminar paper of 2500-4000 words, must be submitted for the third preparation.)
- (b) the intellectual bibliography: an essay of 7000-8000 words in length, covering all three preparations, that identifies and discusses critically the contributions of major writers/writings, both historical and contemporary, that have shaped the student's understanding of Asia and the issues posed in the various disciplines.
- (c) separate preparations: When the fields of preparation are widely divergent, an integrative essay may be unwieldy or unfeasible. In such cases, an acceptable alternative for SHS is to prepare revised versions of writings done for each of the three or four preparations submitted for examination. The essay for each single preparation, in this case, should be 2500-4000 words in length.

Note: The word limits given above include notes but not bibliography, charts, graphs, computer programs, etc.) SHS materials may be examined in regular written exams; they must be examined in oral exams.

The Asian Studies Honors Minor

- (1) An Honors Minor in Asian Studies consists of a minimum of 5 credits, in at least two departments, and with exposure to more than one country of Asia. Normally, two of these courses should come from the list of "foundation courses" (see above). One credit of language study above the first-year level may be counted. Work from study abroad may be counted, if credit has been granted by the College, with the approval of the Asian Studies faculty.

- (2) An Honors Minor in Asian Studies will submit one preparation, normally a two-credit seminar, for examination.
- (3) Senior Honors Study for Minors, normally done in the Spring semester of the senior year, will consist of a single paper of 2500-4000 words, revising work done for the seminar. Preparations for the minor will be examined in the same way as those for the major (see above). No course credit will be given for the SHS for minors.

COURSES

(See catalogue sections for individual departments to determine specific offerings in 1998-1999; additional departmental courses may be considered, pending approval.)

Art (Art History)

3. Asian Art
31. Japanese Civilization and Culture
32. Arts of the Buddhist Temple in Japan
34. Japanese Art of the Early Modern Period: Painting and Prints, 1550-1850
38. Ritual and Image in Buddhist Tradition
- 38b. Buddhist Art: Icon, Narrative and Sacred Space
39. Meiji Japan (1868-1912): Ideology and Representation
132. Arts of the Buddhist Temple
135. Eighteenth-Century Japanese Painting and Its Contexts
136. Japanese Popular Culture of the Edo Period: Sex, Lies, and Mass Marketing

Asian Studies

96. Thesis (one credit)
98. Directed Reading (one-half to one credits)
180. Thesis (two credits)
199. Senior Honors Study for Honors Majors (one-half credit)

Economics

- 81. Economic Development
- 83. Asian Economies
- 181. Economic Development

History

- 9a. Chinese Civilization
- 9b. Modern China
- 10G. Women, Family, and State in China
- 72. Japanese Civilization and Culture
- 75. Modern Japan
- 77. Orientalism East and West
- 144. Modern China

Linguistics

- 33. Introduction to Classical Chinese

Modern Languages and Literatures, Chinese

- 1B, 2B. Introduction to Mandarin Chinese
- 3B, 4B. Second-year Mandarin Chinese
 - 11. Third-year Chinese
- 11A. Third-year Chinese Conversation
 - 12. Advanced Chinese
- 12A. Advanced Chinese Conversation
 - 16. Substance, Shadow, and Spirit in Chinese Literature and Culture.
 - 17. The Legacy of Chinese Narrative Literature: The Story in Dynastic China
 - 18. The Classical Tradition in Chinese Literature
 - 20. Readings in Modern Chinese
 - 21. Topics in Modern Chinese
 - 23. Modern Chinese Literature
 - 25. Contemporary Chinese Fiction
 - 33. Introduction to Classical Chinese
 - 56. Chinese Film in the 20th Century
 - 63. Comparative Perspectives: China in the Ancient World
 - 66. Chinese Poetry.
 - 81. Transcending the Mundane: Taoism in Chinese Literature and Culture
 - 91. Special Topics in Chinese Literature and Culture in Translation

- 93. Directed Reading

Music

- 8. The Music of Asia
- 49. Balinese Gamelan

Political Science

- 55. China and the World
- 56. Politics of South and Southeast Asia
- 64. American-East Asian Relations
- 108. Comparative Politics: Greater China

Religion

- 8. Patterns of Asian Religions
- 9. The Buddhist Traditions of Asia
- 12. History, Religion, and Culture of India, I
- 13. History, Religion, and Culture of India, II
- 26B. Buddhist Social Ethics
- 27B. Asian Religions in America
- 28. Ritual and Image in the Buddhist Tradition
- 104. Buddhism and Society in Southeast Asia
- 108. Poets, Saints, And Storytellers: Religious Literatures of India
- 110. Comparative Religious Ethics Seminar
- 113. From Buddha's Relics to the Body of God: Hindu and Buddhist Devotion

Sociology and Anthropology

- 2. Nations and Nationalisms
- 41. Comparative Study of China and Japan
- 93. Southeast Asia: Culture and History, Independent Study
- 102. History and Myth

Biology

SCOTT F. GILBERT, Professor
MARK JACOBS, Professor
JOHN B. JENKINS, Professor and Associate Chair
TIMOTHY C. WILLIAMS, Professor
RACHEL A. MERZ, Associate Professor
KATHLEEN SIWICKI, Associate Professor and Chair
AMY C. VOLLMER, Associate Professor
SARA HIEBERT, Assistant Professor
ROGER LATHAM, Assistant Professor
COLIN PURRINGTON, Assistant Professor
ELIZABETH A. VALLEN, Assistant Professor³
TAMI H. MYSLIWIEC, Visiting Assistant Professor
DARLENE BRAMUCCI, Laboratory Instructor
MEGAN STREAMS, Laboratory Instructor
THOMAS VALENTE, Laboratory Instructor
MARIA MUSIKA, Administrative Assistant

³ Absent on leave, 1998-99.

Students are introduced to biology by enrolling in Biology 1 and Biology 2 which serve as prerequisites for all intermediate and advanced biology courses. Intermediate courses are numbered 10-50; courses numbered beyond 100 are advanced and may be used to prepare for the Honors Program.

REQUIREMENTS AND RECOMMENDATIONS

Students electing to major in Biology must have a grade point average of C in Biology 1 and 2 (or in the first two Swarthmore biology courses), and a C average in all Swarthmore College courses in the natural sciences. The biology major must include the following supporting subjects in addition to the minimum of eight biology credits composing either the Honors or the course major: Introductory Chemistry, at least one semester of Organic Chemistry, and two semesters of college mathematics (not Stat 1 or Math 3) or the completion of Calculus II (Math 6A and 6B, or 6C). One semester of statistics (Stat 2 or 23) is strongly recommended.

Students majoring in Biology must take at least one course or seminar in each of the following

three groups: I. Cell and Molecular Biology; II. Organismal Biology; and III. Population Biology. Course majors must take at least one advanced course or seminar in Biology and satisfy the general college requirement of a comprehensive experience and examination in biology by participation in Bio 97, Senior Comprehensive Exam.

Special majors in biochemistry, psychobiology, and bioanthropology are also offered. Students wishing to obtain secondary teacher certification in biology must successfully complete a major in biology which should include at least one course in plant science, in evolution, and in physics.

HONORS PROGRAM

Admission to the Honors Program either as a major or a minor is based on academic record (average of B or better in Swarthmore College courses in the natural sciences) and completion of prerequisites for the courses or seminars used in preparation for Honors exams. Qualified students will prepare for two external exams from the following areas: Animal Orientation, Animal Physiology, Behavioral

Ecology, Biomechanics, Cell Biology, Developmental Genetics, Human Genetics, Microbiology, Neurobiology, Plant Physiology, and Plant Ecology. Students in Honors also will undertake a substantial research project (Bio 180) and participate in Senior Honors Study (Bio 199). These efforts will be evaluated by external examiners who will determine the level of honorific and grades for Bio 180 and 199.

Biology course numbers were changed to reflect study at different levels of organization—General studies (1-9), Intermediate courses in Cellular and Molecular Biology (10-19), Organismal Biology (20-29), Population Biology (30-39), Seminars in Cellular and Molecular Biology (110-119), Seminars in Organismal Biology (120-129) and Seminars in Population Biology (130-139). The new numbers are shown below; the former numbers are in parentheses following each offering's description.

COURSES

GENERAL STUDIES

1. Cellular and Molecular Biology.

An introduction to the study of living systems illustrated by examples drawn from cell biology, biochemistry, genetics, microbiology, neurobiology, and developmental biology. (1)

One laboratory period per week.

Primary distribution course.

Fall semester. Staff.

2. Organismal and Population Biology.

Introduction to the study of organisms emphasizing the adaptive aspects of morphology, physiology, behavior, ecology, and evolution of whole organisms and populations. (2)

One laboratory per week.

Primary distribution course.

Spring semester. Staff.

6. History and Critique of Biology.

The topics of this course focus on the history and sociology of genetics, development, and evolution; science and theology; and feminist critiques of biological sciences. (43)

Prerequisites: Biology 1 and 2.

Alternate years, spring semester. Gilbert.

GROUP I CELLULAR AND MOLECULAR BIOLOGY (10-19)

10. Genetics.

An introduction to genetic analysis and molecular genetics. The course explores basic principles of genetics, the chromosome theory of inheritance, classical and molecular strategies for gene mapping, strategies for identifying and isolating genes, the genetics of bacteria and viruses, replication, gene expression, and the regulation of gene activity. Major concepts will be illustrated using human and non-human examples. (20)

One laboratory period per week.

Prerequisite: Biology 1.

Spring semester. Jenkins.

14. Cell Biology.

A study of the ultrastructure, molecular interactions and function of cell components. (21)

One laboratory period per week.

Prerequisites: Biology I and Chemistry 22.

Fall semester. Mysliwicz.

15. Tumor Biology.

An introduction to the current topics in cancer research. This course will examine the molecular and cellular aspects of oncogenesis. Topics include cell cycle and apoptosis controls, angiogenesis and metastasis, growth factors and oncogenes, chemotherapeutic drugs and resistance, tumor virology, cancer prevention and control.

One laboratory period per week.

Prerequisites: Biology 1.

Spring semester. Mysliwicz.

16. Microbiology.

Biology of microorganisms with an emphasis on aspects unique to prokaryotes. Topics include microbial cell structure, metabolism, physiology, genetics, and ecology. Laboratory

Biology

exercises include techniques for detecting, isolating, cultivating, quantifying, and identifying bacteria. Students may not take both Biology 16 and 17 for credit. (38)

One laboratory period per week.

Prerequisites: Biology 1 and Chemistry 22.

Alternate years, spring semester.

Not offered 1998-99. Vollmer.

17. Microbial Pathogenesis and the Immune Response.

A study of infectious agents and of the humoral and cellular mechanisms by which vertebrates respond to agents. Students may not take both Biology 16 and 17 for credit. (34)

One laboratory period per week.

Prerequisites: Biology 1 and 2; Chemistry 22 recommended.

Spring semester. Vollmer.

GROUP II ORGANISMAL BIOLOGY (20-29)

20. Animal Physiology.

An examination of the principles and mechanisms of animal physiology ranging from the subcellular to the integrated whole animal. (15)

Prerequisites: Bio 1, Bio 2, Chem 10 recommended.

Primary distribution course.

Fall semester. Hiebert.

22. Neurobiology.

A study of the basic principles of neuroscience, with emphasis on the electrical and chemical signalling properties of neurons and their underlying cellular and molecular mechanisms, as well as the functional organization of selected neural systems. (29)

One laboratory period per week.

Prerequisite: Biology 1, Chem 10.

Fall semester. Siwicki.

Not offered 1998-99.

24. Embryology.

This analysis of animal development will combine descriptive, experimental, and evolutionary approaches. Laboratories will involve dissection and manipulation of invertebrate and vertebrate embryos. (33)

One laboratory period per week.

Prerequisites: Biology 1 and 2.

Spring semester. Gilbert.

Not offered 1997-98.

26. Invertebrate Zoology.

Evolution, morphology, ecology, and physiology of invertebrate animals. (36)

One laboratory period per week.

Prerequisites: Biology 1 and 2.

Alternate years, fall semester. Merz.

27. Crop Plants.

An introduction to the plants used as food by humans: their origins and evolution, growth and development, nutritional value, production methodology and breeding for yield improvement and pest resistance. Labs will examine the preparation and processing of crops for use as food by man and will include several field trips to production farms and experimental farms in the area.

One laboratory period per week.

Prerequisite: Biology 2, or permission of the instructor.

Spring semester. Jacobs.

GROUP III POPULATION BIOLOGY (30-39)

30. Animal Behavior.

An introduction to the biological study of animal behavior. Topics include Primate social systems, behavioral ecology, orientation and migration. Laboratory emphasizes field techniques. (25)

One laboratory or field period per week.

Prerequisites: Biology 2; Stat 2 recommended.

Spring semester. Williams.

32. Field Ornithology.

The biology of birds in their natural habitats. The course will emphasize the diversity of birds, their ecology, evolution, adaptive physiology and behavior. (14)

Prerequisites: Biology 2, or AP Biology, or consent of instructor.

Alternate years, fall semester. Williams.

32-A. Spring Ornithology.

A field course in bird songs, identification, and behavior.

Prerequisites: Biology 32.

Spring Semester. Williams.
½ credit.

34. Evolution.

This course focuses on how the genetic structure of a population changes in response to mutation, natural selection, and genetic drift. Other topics, such as evolutionary rates, speciation, and extinction provide a broader view of evolutionary processes.

One laboratory period or field trip per week.
Prerequisites: Bio 1 and 2; Bio 10 recommended.

Fall semester. Purrington.

36. Ecology.

The scientific study of the relationships that determine the distribution and abundance of organisms, with a focus on plants. Topics include population dynamics, species interactions, community ecology, and nutrient cycles. (39)

One laboratory period or field trip per week.
Prerequisites: Biology 1 and 2.

Fall semester. Latham.

37. Systematic Botany.

Principles and methods of plant systematics, the study of plant diversity, approached through the classification and identification of the major families of vascular plants. (17)

One laboratory period per week.
Prerequisites: Biology 2 or consent of instructor.

Alternate years, spring semester.

39. Marine Biology.

Ecology of oceans and estuaries, including discussions of physiological, and structural and behavioral adaptations of marine organisms. (50)

One laboratory per week; several all-day field trips.

Prerequisites: Biology 1 and 2.
Alternate years, fall semester. Merz.

INDEPENDENT STUDIES

93. Independent Study.

A program of directed reading or laboratory or field work in a designated area of biology.

One-half or one credit. (93)
Fall or spring semester. Staff.

94. Research Project.

With the permission of the Department, qualified students may pursue a research program for course credit. (94)

Fall or spring semester. Staff.

180. Honors Research.

Independent research in preparation for an Honors Research thesis.

Fall or spring semester. Staff.

SENIOR COMPREHENSIVE EXAMINATION

95, 97, and 199 are not part of 8 credit minimum in Biology.

95. Senior Project.

With the permission of the department a student may write a senior paper in Biology for satisfaction of the requirement of a comprehensive examination for graduation. (95)

97. Senior Seminar.

A consideration of a topic from the perspectives of several biological subdisciplines. Participation of all Biology majors in course. (97)

Fall semester. Staff.

HONORS STUDY

199. Senior Honors Study.

A interactive, integrative program to allow Honors students to finalize their research thesis spring semester. Staff. (100)

SEMINARS (Two Credits)

110. Human Genetics.

A seminar exploring the genetic analysis of the human genome. Nonhuman model systems will be examined along with human systems. (56)

Laboratory Project.

Prerequisites: Biology 10 or consent of instructor.

Spring semester. Jenkins.

Biology

exercises include techniques for detecting, isolating, cultivating, quantifying, and identifying bacteria. Students may not take both Biology 16 and 17 for credit. (38)

One laboratory period per week.

Prerequisites: Biology 1 and Chemistry 22.

Alternate years, spring semester.

Not offered 1998-99. Vollmer.

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One laboratory period per week.

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Spring semester. Vollmer.

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An examination of the principles and mechanisms of animal physiology ranging from the subcellular to the integrated whole animal. (15)

Prerequisites: Bio 1, Bio 2, Chem 10 recommended.

Primary distribution course.

Fall semester. Hiebert.

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A study of the basic principles of neuroscience, with emphasis on the electrical and chemical signalling properties of neurons and their underlying cellular and molecular mechanisms, as well as the functional organization of selected neural systems. (29)

One laboratory period per week.

Prerequisite: Biology 1, Chem 10.

Fall semester. Siwicki.

Not offered 1998-99.

24. Embryology.

This analysis of animal development will combine descriptive, experimental, and evolutionary approaches. Laboratories will involve dissection and manipulation of invertebrate and vertebrate embryos. (33)

One laboratory period per week.

Prerequisites: Biology 1 and 2.

Spring semester. Gilbert.

Not offered 1998-99.

26. Invertebrate Zoology.

Evolution, morphology, ecology, and physiology of invertebrate animals. (36)

One laboratory period per week.

Prerequisites: Biology 1 and 2.

Alternate years, fall semester. Merz.

27. Crop Plants.

An introduction to the plants used as food by humans: their origins and evolution, growth and development, nutritional value, production methodology and breeding for yield improvement and pest resistance. Labs will examine the preparation and processing of crops for use as food by man and will include several field trips to production farms and experimental farms in the area.

One laboratory period per week.

Prerequisite: Biology 2, or permission of the instructor.

Spring semester. Jacobs.

GROUP III POPULATION BIOLOGY (30-39)

30. Animal Behavior.

An introduction to the biological study of animal behavior. Topics include Primate social systems, behavioral ecology, orientation and migration. Laboratory emphasizes field techniques. (25)

One laboratory or field period per week.

Prerequisites: Biology 2; Stat 2 recommended.

Spring semester. Williams.

32. Field Ornithology.

The biology of birds in their natural habitats. The course will emphasize the diversity of birds, their ecology, evolution, adaptive physiology and behavior. (14)

Prerequisites: Biology 2, or AP Biology, or consent of instructor.

Alternate years, fall semester. Williams.

32-A. Spring Ornithology.

A field course in bird songs, identification, and behavior.

Prerequisites: Biology 32.

Students with preparation outside biology should seek permission of the instructor.

Spring semester. Williams.

131. Animal Orientation and Migration.

The way in which animals, from whales to bacteria, find their way around the world. A multi-disciplinary approach including sensory systems, evolution, and ecology is used to investigate large scale animal movements including bird migration. Laboratory includes experience with both radar ornithology and direct visual techniques; field trips and group or independent research projects at the advanced level.

Prerequisites: Bio, 20, Bio 22, Bio 30, Bio 32, Bio 20 or permission of the instructor. Physics (high school or above) and statistics recommended.

Alternate years, fall semester. Williams.

134. Coevolution.

Seminars focusing on the selective pressures, and consequent genetic changes, associated with interactions of individuals from two or more species.

One seminar meeting each week and continuing, independent laboratory projects.

Prerequisites: Biology 1 and 2, and Biology 34; Stat 2 and Biology 10 recommended.

Purrington.

137. Biodiversity.

The ecology of patterns in species diversity and their causes at global, regional and local scales. Readings and presentations also encompass problems in paleobiology, systematics, biogeography, geology, macroevolution, extinction, and ethical, cultural and economic issues pertaining to biodiversity and its conservation. Attendance is required on several all-day field trips (returning as late as 7 p.m.). Students form small research groups; each group designs and implements an independent field research project or a component of a larger project conducted by more than one group.

Prerequisites: Bio 2 and Bio 36 or equivalent.

Fall semester. Latham.

Black Studies

Coordinator: **SARAH WILLIE** (Sociology/Anthropology)

Committee: **Timothy Burke** (History)

Syd Carpenter (Art)

Yvonne Chireau (Religion)

Alison Dorsey (History)

Charles James (English Literature)

Colin Leach (Psychology)

Michelline Rice-Maximin (Modern Languages)¹

Peter Schmidt (English Literature)

3 Absent on leave, 1998-99.

The aims of the Black Studies Program are twofold: to make available to students an interdisciplinary structure of study of Black people in Africa, the Americas and elsewhere in the diaspora; and to provide sites where the various fields of study intersect and where students may explore variable approaches to an emergent discipline.

All majors may add the concentration to their program of study or include Black Studies as the focus of their minor in the External Examination Program by fulfilling the requirements stated below. Applications for admission to the concentration are normally made in the spring term of the sophomore year. All programs must be approved by the Committee on Black Studies.

REQUIREMENTS

All candidates for the concentration in Black Studies are expected to take either History 7, Religion 10, or English 57 and Black Studies 91 (members of the class of 1999 may substitute Linguistics 19 for the required History, Religion or English course). Concentrators must complete a minimum of five courses in Black Studies. These must include at least three courses outside the major, one of which may include Black Studies 91 and two of which must each come from separate departments. Starting with the Class of 2002, all concentrators are expected to satisfy the History, Religion, or English requirement noted above

by completing Black Studies 15.

Black Studies 91, Special Topics in Black Studies, may take the form of a tutorial (if there are three or fewer students in any given class) or a seminar (if there are four or more students), with all senior concentrators participating. The tutorial or seminar will normally be conducted in the spring term of the senior year, and will culminate in a thesis administered by the Black Studies Committee. Please note: it is often possible to combine a student's Black Studies thesis with the senior project for the major. Students who apply their thesis credit to both the major and the concentration must receive advanced approval from the Black Studies Program and the major department.

The Honors Minor

All students participating in the Honors Program are invited to add the minor in Black Studies by defining a two-credit preparation in the concentration. Normally this preparation will be based on two units of credit chosen from the courses approved by the Black Studies Program or it may take the form of a two-credit thesis written under Program supervision. All minors must otherwise meet the requirements of the concentration as noted above.

The Honors minor may pair Black Studies courses together. Such course combinations could include, say, History 8B and Linguistics 37 or Modern Languages 77 and English Literature 78 or Economics 82 and Political Science 58. With respect to course combinations, it should be noted that all Honors work

is normally done during the junior and senior years.

The two-credit Honors thesis option must include work done for the concentration and should entail some unifying or integrative principle of coherence. In addition, an Honors thesis must also include substantial work (normally 50% or more) drawing upon a discipline that is *outside* of the major. One unit of the two-credit preparation by minors will satisfy the Black Studies 91 requirement. The proposal for the two-credit Honors thesis must be approved by the Black Studies committee, normally in the Fall of the student's senior year.

After consultation with their major department, minors may draw on these preparations to enhance or, where appropriate, to integrate their completed or ongoing Senior Honors Study for the major. Work in Black Studies may be represented in the Honors portfolio sent to the external examiner by the inclusion of such things as an essay designed to enhance and/or integrate work done in two or more courses, revised and enriched seminar paper or a term paper from a Black Studies course, a video or audio tape of a creative performance activity in dance or music, or other approved creative work.

Courses of the Black Studies concentration are listed below. Courses of independent study, special attachments on subjects relevant to Black Studies, and courses offered by visiting faculty (those courses not regularly listed in the College Bulletin) may, at the discretion of the Black Studies Committee, be included in the Program. Students, who wish to pursue these possibilities should consult with the appropriate department and with the Black Studies Committee.

COURSES*

*Find descriptions of courses listed in the bulletin with the appropriate departments.

Art 21. African Pot.

Black Studies 15. Introduction to Black Studies.

This course will introduce students to the breadth and depth of the discipline of Black Studies using primary source material. It begins

with an examination of current debates that define theory, method, and goals in Black Studies; it examines the movement from the more object-centered Africana Studies to subject and agent-oriented Black Studies that occurred in the United States as a result of the Civil Rights Movement and challenges to Colonialism in Africa, the Caribbean, and Europe. The course demonstrates the interplay between traditional academic disciplines and the challenges that were levied against them with the rise of anti-racist scholarship. It briefly examines the conversation between American, Caribbean and African post-colonialists, and finally it allows students to delve into a some of Black Studies most current and exciting scholarship with a focus on the United States.

Fall 1998. Willie.

Black Studies 91. Special Topics in Black Studies (Thesis).

Dance 9. Music and Dance of Africa.

Dance 21. History of Asian and African Dance.

Dance 43, 53. African Dance I and II.

Economics 71. Labor Economics.

Economics 73. Women & Minorities in the Economy.

Economics 82. The Political Economy of Africa

Economics 171. Labor and Social Economics.

Economics 181. Economic Development.

English Literature 57. The African American Writer.

English Literature 58. Intimacy and Distance: Faulkner, Wright, Morrison, and Welty.

English Literature 59. The Harlem Renaissance.

English Literature 60. The Contemporary African American Writer.

English 78. The Black African Writer.

English 79. Fiction from the Black Atlantic.

Black Studies

English 121. The Harlem Renaissance and the Jazz Age.

History 7A-B. History of the African American People.

History 8A. Africa in the Era of the Slave Trade, 1500-1850.

History 8B. Modern Africa, 1880 to Present.

History 10I. First Year Seminar: African American Women.

History 53. Topics in African American Women's History.

History 60. Cultural Constructions of Africa: Images, Inventions, Ideologies.

History 63. History of Southern Africa.

History 67. Race in Latin America.

History 137. African American History.

History 140. The Colonial Encounter in Africa.

Linguistics 37. Languages of Africa.

Linguistics 52. Historical and Comparative Linguistics.

Literature 70F. Caribbean and French Civilizations and Cultures.

Modern Languages 12L. Introduction à l'analyse littéraire.

Modern Languages 33. Le Monde francophone: résistances et expressions littéraires.

Modern Languages 75F. Haïti, the French Antilles and Guyane in Translation.

Modern Languages 76. Femmes écrivains.

Modern Languages 77. Prese francophone: littérature et société.

Modern Languages 78. Théâtre d'écritures françaises.

Modern Languages 93. French Caribbean Literature in Translation.

Modern Languages 110. Écritures françaises hors de France: Fiction et réel.

Music 3. Jazz History.

Music 5. Music as Social History.

Music 61. Jazz Improvisation.

Political Science 33. Race, Ethnicity and Public Policy.

Political Science 58. African Politics.

Political Science 110. Comparative Politics: Africa.

Psychology 45. Psychology of Oppression and Resistance.

Religion 10. African American Religions.

Religion 24B. From Vodun to Voodoo: African Religions in the Old and New World.

Religion 25B. Black Women and Religion in the United States.

Religion 109. Afro-Atlantic Religions.

Sociology/Anthropology 11. Race and Ethnicity in the US.

Sociology/Anthropology 43. 20th Century Black Political Thought.

Chemistry

ROBERT F. PASTERNAK, Professor
JUDITH G. VOET, Professor
ROBERT S. PALEY, Associate Professor and Chair
THOMAS A. STEPHENSON, Associate Professor
KATHLEEN P. HOWARD, Assistant Professor
AHAMINDRA JAIN, Visiting Assistant Professor
PAUL R. RABLEN, Assistant Professor³
DAVID E. ROOT, Visiting Assistant Professor
MICHAEL WEDLOCK, Visiting Assistant Professor
VIRGINIA M. INDIVERO, Lecturer
MARY E. ROTH, Lecturer
DONNA T. PERRONE, Laboratory Instructor
BRENDA L. WIDO, Laboratory Instructor
KAY MCGINTY, Administrative Assistant

³ Absent on leave, 1998-99.

The aim of the Department of Chemistry is to provide sound training in the fundamental principles and basic techniques of the science and to provide interested students with the opportunity for advanced work in the main subdisciplines of modern chemistry.

REQUIREMENTS AND RECOMMENDATIONS

The normal route for entrance to the advanced level program is to take Chemistry 10 followed by 22, 32, and 38. Students with an especially strong pre-college background in chemistry are advised to begin with Chemistry 10H. Such students will normally be asked to take a placement examination. Students seeking Advanced Placement credit may also be required to take this examination. Consult with the Department Chair.

The minimum requirement for a major in Chemistry is nine credits in the Department. These must include Chemistry 10, 22, 32, 34, 38, 45A/B, 46, 50 and one single-credit seminar. Students should note the Mathematics and Physics prerequisites for Inorganic and Physical Chemistry. *Those considering a major in Chemistry are strongly urged to complete Math 5, 6A, 6B, 18 and Physics 3, 4 (or 7, 8) by the end of the Sophomore year.* In addition, all students must complete Chemistry 10, 22 and 34 before

enrolling in a Chemistry Department seminar. Students should complete these requirements by the fall semester of the junior year.

Those students planning professional work in Chemistry should include in their programs a fourth semester of mathematics and at least two additional credits in chemistry. Accreditation by the American Chemical Society (ACS) is useful for those who intend to pursue a career in chemical industry and requires a year of independent research through Chemistry 94, 96, or 180. Further, proficiency in reading scientific German, Russian, or French is an asset to the practicing chemist.

Students desiring teacher certification in chemistry must complete Biology 1, 2 in addition to the Chemistry major program. All candidates for teacher certification are required to assist in the instruction of the laboratory of an introductory chemistry course on one afternoon per week for two semesters.

Research opportunities with individual staff members are available through Chemistry 94, 96, and 180. Majors are encouraged to consult the staff about current research problems under investigation.

Chemistry

BIOCHEMISTRY SPECIAL MAJOR

In collaboration with the Department of Biology, the Department of Chemistry also offers a Special Major in Biochemistry (see discussion of Special Major, page 61), which provides the student with the opportunity to gain a strong background in chemistry with special emphasis on the application of chemistry to biochemical and molecular biological problems. The requirements include Chemistry 22, 32, 34, 38, 45A/C, 46, 50 and 108. Biochemistry majors must also complete either (1) a biochemically related, sophomore-level Biology course (with lab) and a biochemically related advanced Biology seminar (with lab), OR (2) two biochemically related, sophomore-level Biology courses (with labs). The term "biochemically-related" is defined here to include all Biology Group I courses and other courses that are deemed appropriate by annual consultation among members of the Chemistry and Biology Departments. Students should note the Mathematics, Physics, Chemistry, and Biology prerequisites for these courses. Those considering a major in Biochemistry are strongly urged to complete Math 5, 6A, 6B, 18 and Physics 3, 4 (or 7, 8) by the end of the Sophomore year. In addition, all students must complete Chemistry 10, 22 and 34 before enrolling in a Chemistry Department seminar. Students should complete these requirements by the fall semester of the junior year. Research opportunities are available in both the Biology and Chemistry Departments. Interested students should consult the Chairs of the two departments.

CHEMICAL PHYSICS SPECIAL MAJOR

In collaboration with the Department of Physics and Astronomy, the Department of Chemistry also offers a Special Major in Chemical Physics (see discussion of Special Major, page 61), which provides the student with the opportunity to gain a strong background in the study of chemical processes from a microscopic and molecular point of view. The Special Major combines course work in chemistry and physics at the introductory and intermediate levels, along with advanced work in physical chemistry and physics, for a total of

between 10 and 12 credits. Laboratory work at the advanced level in either chemistry or physics is required; mathematics courses in linear algebra and multivariable calculus are prerequisites to this work.

In preparation for a major in chemical physics, students must complete by the end of the sophomore year: (1) Chemistry 10/10H and 22; (2) Physics 6, 7, 8 (Physics 3,4 can substitute, but the 6, 7, 8 sequence is strongly recommended); (3) further work appropriate to the major in either chemistry (34, 45A/B and/or 46) or physics (14 and 50); (4) Math 16 and 18. An example of a Major in Chemical Physics follows: Chemistry 22, 34, 45A/B, 46, 50, 104; Physics 7, 8, 14, 50, 111, 113.

HONORS PROGRAM

Fields Available for Examination: The fields offered by the Department of Chemistry for examination as part of the Honors program are: Topics in Modern Organic Chemistry; Topics in Bioinorganic and Organometallic Chemistry; Chemical Dynamics; Theory and Applications of Spectroscopy; Topics in Biochemistry. The Department will offer 3 of these preparations during each academic year. In addition, a two credit Research Thesis will be offered during each academic year. All Honors majors in Chemistry will be required to include a Research Thesis as one of their three fields of study.

Preparation for a Research Thesis within an Honors program consists of enrollment in two credits of Chemistry 180 during the senior year. Preparations for the other five fields consist of completion of the relevant single-credit seminar and associated prerequisites. For each of the preparations, these prerequisites include Chemistry 10, 22, and 34; Math 5, 6A, and 6B; Physics 3 and 4. Individual preparations carry additional requirements and prerequisites, as noted below:

Topics in Modern Organic Chemistry: Chemistry 32, 102 (seminar). Chemical Dynamics: Chemistry 45B, 104 (seminar); Math 18. Theory and Applications of Spectroscopy: Chemistry 45B, 105 (seminar); Math 18. Topics in Bioinorganic and Organometallic Chemistry: Chemistry 32, 46, 106 (seminar).

Topics in Biochemistry: Chemistry 32, 38, 45 A/B or A/C, 108 (seminar); Biology 1.

Chemistry Majors: Honors majors in Chemistry will be required to complete three preparations in Chemistry, one of which must be the Research Thesis. Regardless of the fields selected for external examination, all Honors majors in Chemistry are required to complete Chemistry 10, 22, 32, 34, 38, 45A/B, 46, and 50.

Biochemistry Majors: The Honors program in Biochemistry will consist of four preparations in at least two departments, as follows: (1) Topics in Biochemistry (Chemistry 108); (2) One biochemically oriented preparation from the Biology Department; (3) A two credit biochemically oriented Research Thesis carried out under the supervision of faculty from the Chemistry and/or Biology Departments; (4) One additional preparation chosen from the Chemistry Department or the biochemically related preparations offered by Biology and Psychology Departments. In addition to the academic credits that comprise the Honors program, Biochemistry majors are required to complete Chemistry 45A/C, 46, and 50. Students should note the Chemistry, Biology, Physics and Mathematics prerequisites to these courses and the seminars that are included in the Honors program.

Chemistry Minors: All of the fields available to Chemistry and Biochemistry majors are available for students wishing to minor in Chemistry, with the exception of the Research Thesis. All minors must meet the same prerequisite requirements for seminars established by the Department for Chemistry and Biochemistry majors.

COURSES

1. Chemistry in the Human Environment.

This course will include the study of the central concepts of chemistry in the context of current problems that impact on the human environment. This list includes the greenhouse effect, ozone depletion, acid rain, energy utilization, waste disposal, air and water quality, nutrition, food production, toxic substances, drugs, AIDS, brain chemistry and medicine. Class discussion into the philosophical and

public policy aspects of these problems as well as the chemistry will be encouraged. Assigned reading material will be non-mathematical and emphasize organic and bio-chemistry as well as general chemical principles.

One laboratory period every second week.

Primary distribution course.

Spring semester. Wedlock.

10. General Chemistry.

A study of the general concepts and basic principles of chemistry; atomic and molecular structure, bonding theory, molecular interactions and the role of energy in chemical reactions. Applications will be drawn from current issues in fields such as environmental, transition metal, and biological chemistry.

One laboratory period weekly.

Primary distribution course.

Fall semester. Pasternack, Staff.

10H. General Chemistry: Honors Course.

Topics will be drawn from the traditional General Chemistry curriculum, but discussed in greater detail and with a higher degree of mathematical rigor. Special emphasis will be placed on the correlation of molecular structure and reactivity, with examples drawn from biological, transition metal, and environmental chemistry. Some familiarity with elementary calculus concepts will be assumed.

Open to first-year students only.

One laboratory period weekly.

Prerequisites: A score of at least 3 on the Advanced Placement Chemistry exam or at least 5 on the International Baccalaureate Advanced Chemistry exam or equivalent performance on the departmental placement exam or permission of the instructor.

Primary distribution course.

Fall semester. Jain.

22. Organic Chemistry I.

An introduction to the chemistry of some of the more important classes of organic compounds; nomenclature, structure, physical and spectroscopic properties, methods of preparation and reactions of aliphatic and aromatic hydrocarbons, halides and monofunctional oxygen compounds, with an emphasis on ionic reaction mechanisms.

One laboratory period weekly.

Chemistry

Prerequisite: Chemistry 10.

Spring semester. Jain, Staff.

32. Organic Chemistry II.

A continuation of Chemistry 22 with emphasis on more advanced aspects of the chemistry of monofunctional and polyfunctional organic compounds, multi-step methods of synthesis, and an introduction to bioorganic chemistry.

One laboratory period weekly.

Prerequisite: Chemistry 22.

Fall semester. Paley, Staff.

34. Principles of Physical Chemistry.

A survey of some basic concepts of physical chemistry including states of matter, the laws of thermodynamics, chemical equilibria, electrochemistry, chemical kinetics and introductions to quantum theory, atomic and molecular structure, and spectroscopy.

One laboratory period weekly.

Prerequisites: Chemistry 10, Math 5, 6A, 6B, Physics 3, 4 (or 7, 8).

Fall semester. Wedlock.

38. Biological Chemistry.

An introduction to the chemistry of living systems: protein conformation, principles of biochemical preparation techniques, enzyme mechanisms and kinetics, bioenergetics, intermediary metabolism, and molecular genetics.

One laboratory period weekly.

Prerequisite: Chemistry 32 (Biology 1 recommended).

Spring semester. Voet, Staff.

45A. Intermediate Physical Chemistry I.

Continued discussion of the principles introduced in Chemistry 34, focusing on thermodynamics, the properties of condensed matter, and non-ideal systems.

One laboratory period weekly.

Prerequisites: Chemistry 34, Math 18.

Spring semester, first half. Stephenson.

45B. Intermediate Physical Chemistry II.

Continued discussion of the principles introduced in Chemistry 34, focusing on chemical bonding, spectroscopic methods, statistical thermodynamics, and chemical reaction dynamics.

One laboratory period weekly.

Prerequisites: Chemistry 34, Math 18.

Spring semester, second half. Root.

45C. Biophysical Chemistry

Continued discussion of the principles introduced in Chemistry 34, focusing on the application of physical chemistry to the study of biological problems such as the determination of macromolecular structure and the measurement of both intramolecular and intermolecular interactions important in stabilizing biological structures.

One laboratory period weekly.

Prerequisites: Chem 34, 38.

Spring semester, second half. Howard.

46. Inorganic Chemistry.

A study of the structure, bonding, and reactivity of inorganic compounds with emphasis on the transition metals. Included in the syllabus are discussions of crystal and ligand field theories, organometallic chemistry and bioinorganic chemistry. The laboratory component emphasizes the synthesis, spectroscopy, and magnetic properties of transition metal complexes including organometallic substances and ones of biochemical interest.

One laboratory period weekly.

Prerequisite: Chemistry 34.

Spring semester. Pasternack.

50. Modern Instrumental Methods in Chemistry and Biochemistry.

This laboratory-intensive course centers on modern instrumental methods, including fluorescence, infrared, ultraviolet, and mass spectrometry. Special emphasis is given to Fourier-transform nuclear magnetic resonance.

Approximately five hours of laboratory weekly.

Prerequisites: Chemistry 32 and either 38 or 46. Concurrent or prior courses in Physical Chemistry are recommended. Beginning in 1996, prior or concurrent registration in Chemistry 34 is required.

Fall semester. Howard, Voet.

SEMINARS

The following single credit seminars may be taken for credit towards a degree in Course or

for Papers in the External Examination Program. All students should note that Chemistry 10, 22, and 34 constitute a minimum set of prerequisites for enrollment in any Chemistry Department seminar. These requirements should be completed by the end of the Fall semester of the junior year. Individual seminars carry additional prerequisites, as listed below.

102. Topics in Modern Organic Chemistry

This course will address selected advanced topics of current interest in the fields of synthetic and physical organic chemistry. Materials will be drawn both from textbooks and from the current research literature, and will cover such topics as methods for forming carbon-carbon bonds, control of relative and absolute stereochemistry, applications of stoichiometric and catalytic organometallic chemistry in synthesis, self-assembly, mechanisms of complex or unusual reactions, experimental methods for determining reaction mechanisms, and molecular orbital theory.

Prerequisite: Chem 32.

Alternate years, Fall semester. Not offered 1998-99. Paley, Rablen.

104. Chemical Dynamics

An examination of the theories and experimental techniques that explore chemical reactivity, focusing on microscopic and macroscopic time-resolved phenomena. Examples will be drawn from solution and gas-phase systems, ranging from atmospheric chemistry and molecular beam scattering to electron transfer and chemical substitution reactions in solution.

Prerequisites: Chem 45B, Math 18; Chem 38 or 46 recommended.

Alternate years, Spring semester. Not offered 1998-99. Pasternack, Stephenson.

105. Theory and Applications of Spectroscopy

An examination of topics in molecular spectroscopy, beginning with quantum mechanical principles and extending to chemical applications of NMR, electronic and ro-vibrational spectroscopies.

Prerequisites: Chem 45B, Math 18.

Alternate years, Spring semester. Howard, Wedlock.

106. Topics in Bioinorganic and Organometallic Chemistry.

Topics at the interface of inorganic, bio- and organic chemistry, including bonding theory for transition metal complexes, physical methods for their study, mechanistic and synthetic aspects of Werner and organometallic complexes, self-assembly processes, and bioinorganic chemistry.

Prerequisites: Chem 32, 46.

Alternate years, Fall semester. Paley, Pasternack.

108. Topics in Biochemistry

Physical methods used to study high resolution biomacromolecular structure will be discussed, using examples from the primary literature. Techniques used to measure the forces stabilizing intramolecular and intermolecular interactions, and their application to proteins, nucleic acids, carbohydrates and lipid membranes will be included.

Recent developments in the rational design of ligands for biological receptors, based on results from the physical methods described above, will be used to highlight the importance of diverse approaches to the study of biomolecular recognition.

Prerequisites: Chemistry 38, Biology 1. Prior or concurrent enrollment in Biology 10 or 14 or 16 or 17 and/or Chemistry 45 A/B or A/C is recommended.

Spring semester. Voet, Jain.

STUDENT RESEARCH

All students who enroll in one or more research courses during the academic year are required to attend weekly colloquium meetings and to present the results of their work during the spring semester.

94. Research Project.

This course provides the opportunity for qualified students to participate in research with individual staff members. Students who propose to take this course should consult with the staff during the preceding semester concerning problem areas under study. This course may be elected more than once.

Each semester. Staff.

Chemistry

96. Research Thesis.

Chemistry and biochemistry majors will be provided with an option of writing a senior research thesis in lieu of taking comprehensive examinations. Students are strongly urged to participate in on-campus research during the summer between their junior and senior years. The student will form an advisory committee to consist of (but not be limited to) two members of the Chemistry Department, one of whom is to act as the student's research mentor. Whereas the details of the research thesis program will be determined by the committee and the student, certain minimum requirements must be met by all students selecting this option:

- i) A minimum of two credits of Chemistry 96 to be taken during the last three semesters of the student's residence at Swarthmore.
- ii) A thesis based upon the student's research activity to be submitted prior to the last week of classes of the final semester. Guidelines for the preparation of the thesis will be provided to the student.

Each semester. Staff.

180. Research Thesis.

An opportunity for students in the External Examination program to participate in research with individual staff members. The thesis topic must be chosen in consultation with some member of the staff and approved early in the semester preceding the one in which the work is to be done.

Each semester. Staff.

Classics

GILBERT P. ROSE, Professor

WILLIAM N. TURPIN, Professor and Chair

ROSARIA V. MUNSON, Associate Professor³

GRACE M. LEDBETTER, Assistant Professor⁷

PETER ARONOFF, Visiting Assistant Professor

ROBERT J. SKLENAR, Visiting Assistant Professor

FRANCESCA GIEGENGACK, Administrative Assistant

3 Absent on leave, 1998-99.

7 Joint appointment with Philosophy.

Classics is the study of the ancient Greeks and Romans, who produced some of the world's greatest literature and influenced the entire subsequent course of Western history and culture. The Department of Classics teaches the Greek and Latin languages and literatures from the beginning level through Honors seminars. Any student who wishes to major or minor in Greek or Latin can do so without having studied it before entering college. Those who begin a language at Swarthmore start to read literature by the end of one year. After two years students are usually prepared for seminars, in which they read and discuss in depth the works of such authors as Homer, Sappho, Aeschylus, Sophocles, Euripides, Plato, Thucydides, Herodotus, Cicero, Tacitus, Catullus, Horace, and Virgil.

The ancient languages are studied in courses numbered from 1 to 19 and in seminars. Courses (not seminars) numbered 20 and over have no prerequisites and assume no knowledge of Greek or Latin; instead, English translations are used to introduce students to the history, literature, philosophy, mythology, religion, and archaeology of the ancient world. The courses specifically in ancient history count as prerequisites toward advanced courses in the Department of History and as part of a major in History.

The Department of Classics encourages both majors and non-majors to spend a semester, usually during their junior year, at the Intercollegiate Center for Classical Studies in Rome. Here students from many American colleges may study Latin, Greek, Italian, art history, and the ancient city; they also take field trips in Rome and Italy. Swarthmore College also helps to support the American

Academy in Rome and the American School of Classical Studies in Athens, and its students have privileges at those institutions. Classics students are eligible for the Susan P. Cobbs Scholarship and the Susan P. Cobbs Prize Fellowship for study abroad or for intensive beginning language study in the summer (see pp. 36 and 79).

The Classics Department participates in the Medieval Studies Program, the Women's Studies Program, the Comparative Literature major, and a Special Major in Linguistics.

REQUIREMENTS FOR A MAJOR

Greek, Latin, or Ancient History may be a student's major subject in either the Course or the Honors Program, and a minor in the latter program. Those who intend to major or minor in Greek or Latin should complete courses numbered 11 and 12 (or their equivalent) as early as possible.

A major in Greek or Latin consists of at least eight credits beyond Greek 1-2 or Latin 1-2, and includes three or four seminars. A major in Ancient History consists of Classics 31, 32, 42, 44, a one-credit attachment to any of the above (see p. 63, Formats of Instruction), and a second one-credit attachment or else another course in Classical Civilization. One of the following seminars is also required for Ancient History: Latin 102, Latin 105, Greek 113.

In their last semester, majors who are not in the Honors Program take a comprehensive examination.

Classics

THE HONORS PROGRAM IN CLASSICS

For a major in Greek or Latin, preparation for Honors exams will normally consist of three seminars (students may take a fourth seminar in the major, but not for external examination). A student minoring in Greek or Latin will take one external examination based on one seminar. Minors are, however, strongly encouraged to take more than one seminar, in order to be adequately prepared for the examination.

For a major in Ancient History, one of the three preparations for Honors, as for the major itself, must be a Greek or Latin seminar; the other two will both normally be course-plus-attachment (this differs from the requirements for the major itself). Students minoring in Ancient History will take three courses in Ancient History and add an attachment to one of them. That course-plus-attachment will be the preparation for the external exam. No ancient language is required for this minor.

Senior majors and minors will select one paper from each seminar to be sent to the external examiner for that seminar. The student is free to submit the paper with minor or major revisions or no revisions at all. There are no absolute word-limits, although 1,500-2,500 words would be an appropriate guideline. Majors will, thus, submit three such papers, and minors will submit one. Students offering a course-plus-attachment as a seminar-equivalent will not be required to submit anything in addition.

The portfolio sent to examiners will contain the seminar papers, together with syllabi and related materials, if any, from the instructors. A combination of (three-hour) written and oral exams will be the mode of external assessment for seminars. For course-plus-attachment, the exam will be just an oral.

Greek

1-2. Intensive First-year Greek.

Students learn all the basics of the language, begin reading major classical writers, and are introduced to the culture and thought of the Greeks. The course meets four times a week and carries 1½ credits each semester. There is no assumption that students have studied

Latin.

Primary distribution course, Humanities.

Year course. Aronoff.

9, 10. Greek Prose Composition.

Extensive translation of English into Greek. Meets one hour per week.

Half course. Spring semester. Sklenar.

11. Intermediate Greek.

The chief reading is usually a work of Plato. The course emphasizes both language skills and the discussion of literature and philosophy. Other readings may include selections from the Greek historians, orators, or tragedians (e.g., Euripides' *Medea*).

Primary distribution course, Humanities.

Fall semester. Aronoff.

12. Homer.

Selections from either the *Iliad* or the *Odyssey* are read in Greek; the remainder of the poem is read in translation.

Primary distribution course, Humanities.

Spring semester. Ledbetter.

93. Directed Reading.

Independent work for advanced students under the supervision of an instructor.

Latin

1-2. Intensive First-year Latin.

Students learn all the basics of the language, begin reading major classical writers, and are introduced to the culture and thought of the Romans. The course meets four times a week and carries 1½ credits each semester.

Primary distribution course, Humanities.

Year course. Rose.

9, 10. Latin Prose Composition.

Extensive translation of English into Latin. Meets one hour per week.

Half course. Not offered 1998-99.

11. Introduction to Roman Poetry.

After a review of grammar, students read and discuss major lyric and epic poets of the Golden Age of Roman literature (e.g., Catullus, Virgil). The course emphasizes both language skills and literary criticism, eliciting the special characteristics and concerns of

Roman poetry. Normally taken after Latin 2 or three to four years of high school Latin.

Primary distribution course, Humanities.

Fall semester. Rose.

12. The Latin Novel and Satire.

This course will consider the Roman novel and its relation to prose and verse satire. Texts will be studied both as products of Roman imperial society and as part of a broader literary tradition that extends from the ancient Greek novel down to Cervantes, Fielding, and Fellini. Readings in Latin may include the *Satyricon* of Petronius, the *Apocolocyntosis* of Seneca, the *Metamorphoses* of Apuleius, and the satires of Persius and Juvenal.

Prerequisite: Latin 11 or equivalent.

Spring semester. Turpin.

13. Literature of the Augustan Age.

A portrait of the Age of Augustus from the point of view of one or more contemporary poets, such as Ovid, Virgil, Horace, and Propertius, who contributed to the greatness of the period while often questioning its assumptions.

Prerequisite: Latin 11 or equivalent.

Primary distribution course, Humanities.

Fall semester. Sklenar.

14. Medieval Latin.

Readings are chosen from the principal types of medieval Latin literature, including religious and secular poetry, history and chronicles, saints' lives, satire, philosophy, and romances.

Prerequisite: Latin 11 or equivalent.

Primary distribution course, Humanities.

Spring semester. Not offered 1998-99.

16. Republican Prose: Cicero.

Cicero stood at the political and cultural center of the late Roman Republic. Readings are chosen from his speeches. We examine his prose style, especially his use of rhetoric and invective as means of persuasion. We also study his role in transmitting Greek culture to the Romans, and by extension to ourselves.

Prerequisite: Latin 11 or equivalent.

Spring semester. Aronoff.

17. Latin Poetry and the Modernists.

This course explores Latin poems influential in the creation of the Modernist verse of, in par-

ticular, Ezra Pound and T.S. Eliot. The Latin texts are read in the original, for their own sake and in their own context, but we also explore the readings given them by the Modernists, in an attempt to assess the uses and importance of their common literary tradition.

Prerequisite: Latin 11 or equivalent.

Primary distribution course, Humanities.

Fall semester. Not offered 1998-99.

93. Directed Reading.

Independent work for advanced students under the supervision of an instructor.

Ancient History and Civilization

All of the courses in ancient history—namely, Classics 31, 32, 42, and 44—are required for a major in Ancient History. They also count as prerequisites for advanced courses in the Dept. of History and as part of a major in History.

20. Plato.

Cross-listed as Philosophy 20.

Spring semester. Ledbetter.

31. History of Greece.

A study of the political and social history of the Greek cities from the Mycenaean or Bronze Age to the end of the classical period. Topics include the growth of the city-states, the development of democracy, the period of Athenian political and cultural leadership, and Athens' rivalry with Sparta.

Primary distribution course, Social Sciences.

Fall semester. Turpin.

32. The Roman Republic.

A study of Rome from its origins to the civil wars and the establishment of the principate of Augustus (753-27 B.C.). Topics include the legends of Rome's foundation and of its republican constitution; the conquest of the Mediterranean world, with special attention to the causes and pretexts for imperialism and the tensions it created; and the social and political structures of the Republic.

Primary distribution course, Social Sciences.

Fall semester. Not offered 1998-99.

Classics

33. Homer and Greek Tragedy.

The two most popular types of literature among the ancient Greeks were epic and tragedy. This course studies the major works of both genres in detail through English translations. We place them into their cultural and performance contexts, and discuss their exploration of such fundamental human issues as the relations between humans and divinity, individual and state, and men and women, as well as their differing conceptions of the hero. Readings include the *Iliad* and *Odyssey* and plays by Aeschylus, Sophocles, and Euripides, no prior knowledge of which is assumed.

Primary distribution course, Humanities.

Fall semester. Rose.

34. Women in Classical Literature.

Helen, Penelope, Clytemnestra, Electra, Antigone, Deianira, Medea, Phaedra, Ariadne, Dido—these Greek and Roman women, admirable or dangerous, are among the most complex literary creations of any period. This course concentrates on the representations of women in the epic poems and dramas of Greece and Rome, but it also explores the relation between such portrayals and the lives of actual women in those societies.

Fall semester. Not offered 1998-99.

35. Decadence and Salvation.

Latin authors typically saw themselves as living in a decadent age and regarded their own times as politically, morally, and aesthetically inferior to the past. Often this sentiment took the form of angry polemic or wistful nostalgia. Some writers, however, willingly embraced decadence and its pleasures, while still others, especially during the Roman Empire, turned to religious salvation. In this course students will read, in English translation, Latin authors from Sallust, Ovid, and Petronius to St. Augustine, in an attempt to understand the nature and variety of these responses to the perception of the decline of civilization.

Spring semester. Sklenar.

36. Classical Mythology.

The myths of the Greeks and Romans are central to the study of the ancient world and have had an enormous influence upon subsequent literature and other arts. This course examines selected myths in such major works of Greek

and Latin literature as the *Iliad* and the *Odyssey*, the tragedies of Aeschylus, Sophocles, and Euripides, and Ovid's *Metamorphoses*. Myths are treated both as traditional tales about gods and heroes and as evolving narratives, subject to the influences of political, social, and sexual ideologies.

Spring semester. Ledbetter.

37. Greek and Roman Religion.

A study of selected issues basic to the understanding of religion in ancient society: the gods, cults, festivals and rituals, beliefs about the afterlife, oracles and prophecy, the interaction of philosophy and religion, and the social context of early Christianity. Cross-listed as Religion 37.

Not offered 1998-99.

42. Democratic Athens.

Using diverse primary sources (Thucydides' *Histories*, tragedy, comedy, and others), this course explores several aspects of classical Athenian culture: democratic institutions and ideology, social structure, religion, intellectual trends, and the major historical events that affected all of these and shaped the Greek world in the 5th and early 4th centuries B.C.

Primary distribution course, Social Sciences.

Spring semester. Not offered 1998-99.

44. The Early Roman Empire.

A detailed study, using primary sources, of the political, economic, social, and cultural history of the Roman world from the fall of the Republic through the Antonine Age (50 B.C.-A.D. 192).

Primary distribution course, Social Sciences.

Spring semester. Turpin.

52. Introduction to Greek Archaeology.

This course traces the development of Greek civilization as documented by archaeology and includes data ranging from monumental art and architecture to coins and potsherds. There is special emphasis on such important sites as Knossos, Mycenae, Delphi, Olympia, and Athens.

Primary distribution course, Humanities.

Not offered 1998-99.

60. Dante and the Classical Tradition.

This course explores the ways in which Dante

and other fourteenth-century Italian authors reinterpreted the classical tradition to create revolutionary works of immense influence for later times. The entire *Divine Comedy* and possibly selections from Petrarch and Boccaccio are read in English.

Fall semester. Not offered 1998-99.

93. Directed Reading.

Independent work for advanced students under the supervision of an instructor.

SEMINARS

102. The Roman Emperors.

This seminar explores Latin authors of the first and second centuries A.D., with particular attention to their responses to the social and political structures of the period. Expressed attitudes toward the emperors range from adulation to spite, but the seminar concentrates on authors who fall somewhere in between, writing skeptically or subversively. Both prose writers (e.g., Tacitus, Suetonius, Pliny) and poets (e.g., Lucan, Seneca, Juvenal) are included.

Fall 1999.

103. Latin Epic.

This seminar usually focuses on Virgil's *Aeneid*, although it may include other major Latin epics.

Spring 1999. Aronoff.

105. The Fall of the Roman Republic.

This seminar examines Latin texts from the traumatic period of the Late Republic (70-40 B.C.). It focuses on the social and political crisis of the period, as well as its connections with the artistic and philosophical achievements of the first great period of Latin literature. Authors include Lucretius, Catullus, Cicero, and Sallust.

Fall 1998. Turpin.

107. Horace.

The seminar emphasizes the Odes and Epodes and their place in the tradition of Greek and Roman lyric poetry. Attention is also given to the *Satires* and *Epistles*, especially the *Ars Poetica*, and to their importance for the history of satire and literary criticism. An effort is made to grasp the totality of Horace's achieve-

ment in the context of the Augustan Age.
Spring 2000.

111. Greek Philosophers.

This seminar is devoted mainly to the study of Plato, which is supplemented by study of the pre-Socratic philosophers and of Aristotle and the Hellenistic schools. The orientation of the seminar is primarily philosophical, although the literary merits of the Greek philosophers receive consideration.

Fall 1998. Ledbetter.

112. Greek Epic.

This seminar studies either the entirety of Homer's *Odyssey* in Greek or most of the *Iliad*.
Spring 1999. Rose.

113. Greek Historians.

This seminar is devoted to a study of Herodotus and Thucydides, both as examples of Greek historiography and as sources for Greek history.

Fall 1999.

114. Greek Drama.

This seminar usually focuses on one play by each of the major tragedians—Aeschylus, Sophocles, and Euripides. Other plays are read in translation. The works are placed in their cultural setting and are discussed as both drama and poetry.

Spring 2000.

Comparative Literature

Coordinator: **CAROLYN LESJAK** (English Literature)
Committee: **Alan Berkowitz** (Modern Languages and Literatures)
Elizabeth Bolton (English Literature)³
Thompson Bradley (Modern Languages and Literatures)
Marion Faber (Modern Languages and Literatures)
John Hassett (Modern Languages and Literatures)
George Moskos (Modern Languages and Literatures)
Gil Rose (Classics)
Phillip Weinstein (English Literature)²
Hansjakob Werlen (Modern Languages and Literatures)²

2 Absent on leave, spring semester, 1999.

3 Absent on leave, 1998-1999.

The Comparative Literature major is administered by a Comparative Literature Committee made up of the Coordinator and faculty representing the Departments of Classics, English Literature and Modern Languages and Literatures. The basic requirement for the major is *work in two literatures in the original language*.

In planning a Comparative Literature major, students should look at course listings in the departments of Classics, English and Modern Languages. Of courses in Classics and Modern Languages and Literatures, only courses in the original language numbered 11 or above are counted as constituents of the Comparative Literature major. Of English courses numbered 5A-X, only one may be counted for the major. Students applying for the major will submit to the Comparative Literature Coordinator a proposal of integrated study which sets forth the courses and/or seminars to be taken and the principle of coherence on which the program of study is based. The student will also submit a 6-10 page writing sample from a previously completed course. The Committee will review the proposal and the essay and advise the student.

Note: In lieu of a regular course, the Comparative Literature Committee will consider proposals for one or more research papers written as course attachments as well as proposals to substitute an extended research paper for course credit.

REQUIREMENTS FOR A MAJOR IN COURSE

1. *Ten credits in two or more literatures in the original languages*, including a substantial concentration of work—normally four or five courses—in each of the literatures. The thesis (described below) does not count toward these ten credits.

Students working entirely in languages other than English may propose one course in translation as a part of their program, as long as it is deeply relevant to their plan of study. Students working in English and any language other than Chinese must do all of their work in the original languages. Due to the special demands of Chinese language and literature, students working in Chinese may propose a program based on attachments (in Chinese) to literature courses taught in translation.

2. *A one- or two-credit thesis*, covering work in at least two languages, planned in the spring of the junior year, and submitted in the spring of the senior year, no later than April 30th.

Before the end of the junior year, the student will submit to the Committee an outline for the thesis and propose faculty advisors from appropriate departments. In some cases the Committee may ask that the thesis be written in whole or in part in the language of a literature studied other than English.

3. *An oral comprehensive examination*, one to one and a half hours in length, at the end of the senior year, based on the thesis and on

the courses and seminars comprising the major.

REQUIREMENTS FOR A MAJOR OR MINOR IN THE HONORS PROGRAM

Major: Four two-credit preparations in at least two literatures in the original language, one of which is a thesis. One of the preparations may be used as an independent minor (in Russian or German Studies, for instance) if the minor's departmental requirements have been met. Minors requiring unrelated preparations such as Biology or Psychology are not allowed: all four honors preparations are necessary components of the comparative literature honors major.

Minor: A two-credit thesis integrating preparations that have been done in two literatures in the original language.

Prerequisite for admission into the Honors Program: Successful completion of an advanced course in literature in each of the literatures of the student's program of study. A minimum grade of a B is required.

Mode of examination: For each preparation, a three-hour written examination prepared by the external examiner and a thirty-minute oral based on the contents of the written exam.

Procedures for all majors: All majors will meet with members of the Comparative Literature Committee before the end of the junior year to review and assess the student's program. At this time, both course and honors majors will submit thesis proposals and propose faculty advisors.

The courses and seminars that compose the Comparative Literature major's formal field of study will naturally differ with each major. In order to give some sense of the range of possibilities available, a series of sample programs are offered below.

SAMPLE: COMPARATIVE LITERATURE COURSE MAJOR

Focus: The Black Atlantic
English 5R: Fictions of Identity
French 12L: Introduction à l'analyse littéraire

English 54: Faulkner, Morrison and the Representation of Race
French 25: Centers and Peripheries in the Francophone World
English 59: The Harlem Renaissance
French 77: Prose francophone
English 79: Fiction from the Black Atlantic
French 110: Écritures françaises hors de France (Caribbean)
English 86: Postcolonial Theory and Lit.
One-credit thesis

SAMPLE: COMPARATIVE LITERATURE HONORS MAJORS

Focus: Modernism
Courses:
German 13: Introduction to German Literature
German 52: The Body Machine: Deconstructing the Body Politic in Postwar German Drama
English 45: Modern British Poetry
English 53: American Poetry
Seminars:
English 115: Modern Comparative Literature
English 121: The Harlem Renaissance and the Jazz Age
German 109: Rise of the Modern German Novel
Two-credit thesis

SAMPLE: COMPARATIVE LITERATURE HONORS MINOR

Two-credit thesis: Kant's influence on Hölderlin and Pio Baroja
Background Courses:
German 13: Introduction to German Literature
German 91: Rethinking Representation (plus attachment in German)
Spanish 11: Introduction to Spanish American Literature
Spanish 70: Rebelión y renovación artística: la generación de 98

Computer Science

CHARLES F. KELEMEN, Professor and Program Director

JAMES MARSHALL, Visiting Instructor

LISA MEEDEN, Assistant Professor

JOAN M. McCAUL, Administrative Assistant

Committee: **Charles Grinstead** (Mathematics)

Bruce Maxwell (Engineering)

Ann McNamee (Music & Dance)

a student to be selected

Computer Science is the study of algorithms and the issues involved in implementing them. This includes the study of computer systems, methods to specify algorithms (for people and computer systems), and the formulation of theories and models to aid in the understanding and analysis of the properties of algorithms, computing systems, and their interrelationship.

The Computer Science Program is designed to provide students with a flexible set of offerings in computing that can be tailored to satisfy interests in various areas and at several levels of depth. All the courses emphasize the fundamental concepts of computer science, treating today's languages and systems as current examples of the underlying concepts. The Computer Science Laboratory provides up-to-date software and hardware facilities. There are three entry points to the CS curriculum at Swarthmore.

'CS10: *Great Ideas in Computer Science*' is designed for Freshmen with little or no experience in computer science. It is an introduction that emphasizes breadth of coverage over depth or skill building. Most appropriate for first or second year students who lack confidence in their abilities in Computer Science.

'CS21: *The Imperative Paradigm: UNIX and C*' falls between CS10 and CS22 in pace. No previous experience with computers is necessary. CS21 will introduce fundamental ideas in computer science while building skill in software development. This course is appropriate for all students who want to be able to write programs. It is for students who are comfortable with computers. This is the usual first course for Computer Science Majors and Concentrators. Students with AP credit or extensive programming experience may be able to place out of this course.

'CS22: *Structure and Interpretation of Computer Programs*' is designed for students who plan to take several courses in Computer Science. This course is a fast-paced introduction to the kind of abstraction used in all areas of Computer Science. The language used is a dialect of LISP. For students who intend to be Computer Science majors, minors, or concentrators AND are fluent in a language like C AND feel comfortable about their abilities, this is the best first course.

Students or advisors who want more advice on placement in CS courses should feel free to contact any CS faculty member by phone or in person.

The Computer Science Program offers special majors, majors and minors in the Honors Program, and concentrations. Students interested in any of these options are encouraged to meet with the director of the computer science program as early in their Swarthmore years as possible. The concentration in computer science is designed for students who desire a coherent introduction to the core topics in the field but cannot afford the number of courses required of a major. Students completing the concentration will possess a number of intellectual skills useful in many disciplines.

SPECIAL MAJOR IN COMPUTER SCIENCE

The requirements for a Special Major in computer Science consist of:

2 mathematics courses numbered above 8 (Math9 and Math16 recommended);

Each of CS21, CS22, CS23, CS35, CS46, CS97;

Three of CS40, CS41, CS43, CS63, CS75,

CS81, Math72, Engin21, Engin24, Ling50, or Ling108.

CONCENTRATION IN COMPUTER SCIENCE

The Concentration in Computer Science can be combined with any major in the College. It provides students with a well-rounded background in computer science sufficient to develop significant, creative applications and to keep up with the rapid changes in the field. Students interested in a Concentration in Computer Science should submit a concentration proposal for approval by the Computer Science Committee, preferably by the end of their Sophomore year. If this proposal is not part of the Sophomore paper, it should include a copy of the Sophomore paper with it. Both the student's major advisor and the Director of the Computer Science Program should be consulted when writing such a proposal. While some flexibility is possible, the requirements for the Concentration in Computer Science will consist of six courses including a comprehensive experience. The six courses should be selected as follows:

Each of CS21, CS22, Math9, CS35, CS97;

One of CS23, CS41, or CS46.

The comprehensive experience will ordinarily be satisfied by completing CS97: Senior Conference. In some cases a thesis or project may be used to satisfy some other department's comprehensive experience and also the Computer Science requirement. In such cases specific approval of the Computer Science Program and the other department must be obtained before embarking on the project.

JOINT SPECIAL MAJORS

Students desiring to integrate computer science with another discipline in a more formal manner are encouraged to develop a Special Major combining computer science and another area. Such special majors require the approval of the Computer Science Committee and the other department involved. Special majors should be designed in consultation with the Director of the Computer Science Program as early in the student's program as possible.

Approval of a special major is not guaranteed. It will depend upon the availability of resources (both faculty and equipment) and the student's demonstrated ability to work independently.

HONORS PROGRAM

Honors majors and minors in computer science are available.

HONORS MAJOR

An honors major in CS will consist of: two 2-credit preparations, one 2-credit research report or thesis, a minor preparation, and a senior honors study portfolio.

The following will be submitted to external examiners to be evaluated as described in more detail below:

- A) Two 2-credit preparations to be selected from the combinations of courses listed below. Each of these 2-credit preparations will be examined by a 3 hour written exam and an oral exam;
- B) One 2-credit research report or thesis to be read by an external examiner and examined orally;
- C) Senior Honors Study portfolio.

We expect that all CS examiners will meet together to discuss honors recommendations for CS majors and minors.

Computer Science

DETAILS

A) Currently approved papers for part A.

Preparation	Course Combination
Algorithms	two of CS41 Algorithms, CS35, or Math 72 Combinatorial Optimization
Algorithms & Theory	CS41 Algorithms CS46 Theory of Computation
Artificial Intelligence & Robotics	CS81 Building Intelligent Robots CS63 Artificial Intelligence
Compiler Design & Theory	CS46 Theory of Computation CS75 Compiler Design & Construction
Computer Architecture	Engin21 Digital Logic Design CS23 Computer Architecture
Programming Languages	CS43 Programming Languages CS75 Compiler Design & Construction

Selections to satisfy part A must include 4 distinct courses. In certain circumstances, the CS Program may be willing to consider other groupings of courses, seminars, or courses with attachments. In all cases the Computer Science Program must approve the student's plan of study.

B) At a minimum this will involve a review of one or more scholarly papers from the primary literature of computer science and the writing of a scholarly scientific paper. We hope that the paper will report on a research experience involving the student and faculty (here or elsewhere). It is expected that most of the research or scholarly ground work will be completed before the Fall semester senior year either by one credit of work in the Spring semester Junior year or full-time summer work. Students will register for at least one credit of thesis work in the Fall of the senior year to complete the work and write the paper. It is expected that the paper will be completed by the end of the Fall semester.

C) Senior Honors Study will consist of full participation in CS97 Senior Conference with course students in the Spring semester of the Senior year. In addition, honors students will be provided with a set of questions (generated by Swarthmore faculty) designed to encourage

integration and synthesis of various topics in computer science. Honors students will answer a subset of these questions (in less than 6000 words) which will be included with written work from CS97 as Seniors Honors Work. This material will be sent to all CS external examiners.

To be eligible for an honors major in computer science students must

- 1) have a B+ average in all CS courses completed by the end of Junior year. These must include: CS21, CS22, CS35, and at least one of CS23 or CS46.
- 2) have demonstrated proficiency in mathematical argument and reasoning by the end of the Junior year. Ordinarily this proficiency will be assumed if the student has:
 - a) passed Math 9 and Math 16 with a grade of B+ or better or
 - b) passed Math16H with a grade of B or better or
 - c) completed Math47 or Math49 with a grade of B- or better.
- 3) complete by the end of the senior year both of CS23 and CS46, and in addition CS93, and CS97.

HONORS MINOR IN CS

One 2-credit preparation to be selected from combinations of courses listed in A above. An examiner will set both a 3 hour written exam and an oral exam for the preparation.

To be eligible for an honors minor in computer science a student must

- 1) have a B+ average in all CS courses completed by the end of Junior year. These must include: CS21, CS22, CS35, and at least one of the CS23 or CS46.
 - 2) have demonstrated some proficiency in mathematical argument and reasoning by the end of the Junior year. Ordinarily this proficiency will be assumed if the student has:
 - a) passed Math 9 or Math 16 with a grade of B or better or
 - b) passed Math16H or Math47 or Math49 with a grade of B- or better.
-

STUDY ABROAD

Students planning to concentrate or major in Computer Science may opt to study abroad for one semester or a whole year. Because advanced courses in Computer Science are offered only in alternate years, some selections will be unavailable to some students. A course of study abroad should be agreed upon with the Program before it is taken. The Computer Science Program will give credit for appropriate courses taken aboard. The Program determines credit earned by students on their return to Swarthmore on the basis of evidence presented by the student. Depending upon the resources available to the Program, independent study and/or reading courses may occasionally be offered to accommodate students who are unable to take desired offerings because of study abroad.

GRADUATE STUDY

Students interested in graduate study in Computer Science will be well prepared by a Special Major in Computer Science. Some graduate programs will also accept students who have majored in Mathematics or Engi-

neering and completed a sufficient number and selection of Computer Science courses. The choice of the appropriate major and computing courses will depend on the student's interests and should be made in consultation with the director of the Computer Science Program. Other majors are also reasonable for students with special interests. For example, a major in Linguistics or Psychology might be appropriate for a student interested in Artificial Intelligence or Cognitive Science. In such cases, students should consult as early as possible with the director of the program in order to be sure of taking the mathematics and computing courses necessary to be prepared for graduate work in Computer Science.

COMPUTER SCIENCE COURSES

(Courses numbered above 40 will be offered in alternate years.)

10. Great Ideas in Computer Science.

This course will introduce a number of fundamental ideas in computer science. Topics to be covered include: history, applications, the basic design of a digital computer, the programming process, theory of computability, artificial intelligence, and the social implications of computing. Students will contribute to and modify the emphasis of the course by writing and presenting papers in the last third of the semester. No previous experience with computers or computing will be assumed and programming will not be emphasized in this course. Nonetheless, much of the material will be encountered in laboratory sessions in addition to the lecture-discussion sessions.

Lab work required. This course is a Science Primary Distribution Course. It is designed for Freshmen and they will be given enrollment preference.

Each semester. Staff.

21. The Imperative Paradigm: Unix and C.

This course introduces students to fundamental aspects of the field of computing, focusing on problem-solving, software design concepts, and their realization as imperative programs run on the Unix operating system. An introduction to the Unix operating system and the C programming language for the purpose of

gaining mastery of these principles will be provided. Topics to be covered include: Von Neumann architecture, operating system overview, Unix, Emacs editor, C programming, control structures, arrays, procedural abstraction, pointers, iteration, recursion, sorting, data types and their representation, elementary data structures, Lists, Stacks, Queues, informal analysis of algorithms, informal verification using loop invariants, elementary Unix tools (such as grep, sort, tr), introduction to shell scripts.

Lab work required. This course is a Science Primary Distribution Course.

Prerequisites: none.

Each semester. Marshall, Meeden.

22. Structure and Interpretation of Computer Programs (formerly CS20).

This course is a serious introduction to the study of computer programs; and, through programs, some central ideas in computer science. By studying programs that make repeated and deep use of abstraction, students will learn how to generate precise specifications from vaguely formulated and perhaps partially understood descriptions. This is a skill that is essential in writing computer programs and will be useful in all intellectual endeavors. Topics to be covered include: programming idioms and paradigms (functional and object-oriented), recursion, abstract data structures (lists, queues, trees and sets), information retrieval, binding and scope, and interpreters.

Lab work required. This course is a Science Primary Distribution Course.

Prerequisite: Comfort with your computing abilities.

Fall semester. Marshall.

23. Computer Architecture.

An in-depth tour of current computer technology, including selected RISC and CISC microprocessor instruction sets and addressing modes, superscalar architectures, interrupts and DMA, peripherals, memory system hierarchy, virtual memory, and computer networks. Fundamental operating system concepts. Parallel and distributed computer systems. The laboratory will include studies of specific machines from microcontrollers to workstations. Cross-listed as Engineering 22: Microprocessors and Computer Architecture.

Prerequisites: CS21, some experience with UNIX and C, or permission of instructor.

Spring semester. Maxwell.

35. Algorithms and Object Oriented Computing.

This course completes the broad introduction to computer science begun in CS21 or CS22. It provides a general background for further study in the field. Topics to be covered include: object-oriented programming in Java or C++, advanced data structures (trees, tries, graphs, etc.) and algorithms, software design and verification, and parallel and distributed algorithms. Students will be expected to complete a number of programming projects illustrating the concepts presented.

Lab work required. Prerequisites: CS21 or permission of instructor. Math9 recommended.

Spring semester. Kelemen.

40. Computer Graphics.

Techniques used to model and display three-dimensional scenes. Topics include 2D and 3D transformations, clipping, scan conversion, projections, coordinate systems, rendering, ray tracing, representing curves/surfaces/solids, color, lighting, and software and hardware for graphics systems. A laboratory will involve programming user-interface systems and images using the X11 package, an interactive X toolkit, and PEX.

Prerequisites: CS21, extensive familiarity with C, or permission of instructor. Linear algebra and some calculus is helpful. Cross-listed with E26.

41. Algorithms.

The study of algorithms found to be useful in many diverse areas. Considerable attention is paid to correctness and time and space resources required. Topics to be covered include: abstract data types, trees (including balanced trees), graphs, searching, sorting, and the impact of several models of parallel computation on the design of algorithms and data structures.

Prerequisite: CS 35.

Fall 1998. Kelemen.

43. Foundations of Programming Language Design.

A study of the organization and structure of modern programming languages with an emphasis on semantic issues. Topics include: spec-

ifying syntax and semantics, conventional and abstract data types, control structures, procedural languages, functional languages, object-oriented languages, other classes of languages, program correctness, concurrency and synchronization, language design and evaluation, and implementation issues.

Lab work required. Prerequisite: CS 35.

Next offered Fall 1999.

46. Theory of Computation.

The study of various models of computation leading to a characterization of the kinds of problems that can and cannot be solved by a computer and, for those problems that can be solved, a means of classifying them with respect to how difficult they are to solve. Topics to be covered include: formal languages and finite state devices, Turing machines and other models of computation, computability, and complexity.

Prerequisite: CS 35.

Spring 99. Kelemen.

63. Artificial Intelligence.

The unifying theme of this course is the concept of an intelligent agent. Based on this perspective, the problem of AI is seen as describing and building agents that receive perceptions from an environment and perform appropriate actions based on them. This course will examine many different methods for implementing this mapping from perceptions to actions including: production systems, reactive planners, logical planners, and neural networks. We will use robots to explore these methods.

Lab work required. Prerequisite: CS35.

Fall 98. Meeden.

75. Principles of Compiler Design and Construction.

This course presents an introduction to the design and construction of language translators for imperative, procedure oriented programming languages. Topics covered include: formal grammars, lexical analysis and finite automata, syntax analysis and pushdown automata, LL and LR parsing, semantic analysis and table handling, error detection and recovery, code generation and optimization, compiler writing tools.

Prerequisite: CS 35.

81. Building Intelligent Robots.

This course addresses the problem of controlling robots that will operate in dynamic, unpredictable environments. In laboratory sessions, students will work in groups to build small, lego-based mobile robots and to program them to perform a variety of simple tasks

such as obstacle avoidance and light following. In lecture/discussion sessions, students will examine the major paradigms of robot control through readings with an emphasis on adaptive approaches.

Next offered Fall 99.

91. Special Topics in Computer Science.

In general, subject matter for CS91 is dependent on a group need or individual interest. Normally restricted to senior students and only offered when staff interests and availability make it practicable to do so.

93. Directed Reading and/or Research Project.

With the permission of a staff member who is willing to supervise it, a qualified student may undertake a program of extra reading and/or a project in an area of computer science.

97. Senior Conference.

This course provides senior concentrators and special majors an opportunity to delve more deeply into a particular topic in computer science synthesizing material from previous courses. Recent topics have been robotics and embodied intelligence (1997), complexity, encryption, and compression (1996), and parallel processing (1995). CS97 is the usual method used to satisfy the comprehensive requirement for a computer science major or concentrator.

Spring semester: Staff.

SEMINARS

128. Computational Models of Learning.

A study of computer-based representational formalisms and algorithms that facilitate learning behaviors with a focus on models inspired by biological sciences. Strong emphasis on the study of connectionist models that are based on neural network abstractions. Other approaches covered include genetic algorithms and symbol-based models. The course includes

Computer Science

a laboratory component for hands-on experiments with various models and algorithms in the development of learning behaviors.

Prerequisites: Psy 28 or Psy 33 or CS 20 or CS 21 and by instructor's permission.

Cross-listed as Psychology 128.

Spring semester. Dufour and Meeden.

199. Senior Honors Study.

Economics

STEPHEN S. GOLUB, Professor³
ROBINSON G. HOLLISTER, JR., Professor
MARK KUPERBERG, Professor, Chair
STEPHEN A. O'CONNELL, Professor
BERNARD SAFFRAN, Professor
LARRY E. WESTPHAL, Professor
JOHN P. CASKEY, Associate Professor
PHILIP N. JEFFERSON, Associate Professor
ELLEN B. MAGENHEIM, Associate Professor¹
AMANDA BAYER, Assistant Professor
PEGGY dePROPHETIS, Visiting Lecturer
MARY ANNE STEWART, Administrative Assistant

¹ Absent on leave, fall semester 1998.

³ Absent on leave, 1998-99.

The courses in economics have three main goals: 1) to provide insight into the processes and accompanying institutions through which productive activity is organized; 2) to develop a set of tools for analyzing economic processes and institutions; and 3) to build a foundation for reaching informed judgments on issues of public policy.

Econ 1 or its equivalent is a prerequisite for all other work in the department. In addition, all majors in economics must satisfy a theory requirement by taking Econ 11 (Intermediate Microeconomics) and Econ 21 (Intermediate Macroeconomics). They must also satisfy a statistics requirement by taking Econ 31 (Statistics for Economists) or its equivalent or Mathematical Statistics 53 (Statistics 1 or Statistics 2 do not meet the requirement). The statistics course in the Economics Department focuses more on the application of statistical tools to economic problems; the statistics courses in the Mathematics and Statistics Department focus more on the derivation of the mathematical and statistical properties of various estimators.

In order to read the literature in economics critically, a knowledge of elementary calculus is extremely useful. The department very strongly recommends that students take Math 5 and either Math 6A & 6C (basic calculus) or the series of Math 6A & 6B and Math 18. Math 16 (Linear Algebra) and Math 18 (Several Variable Calculus) are valuable for those

intending to focus on the more technical aspects of economics. Students planning to attend graduate school in economics should give serious thought to taking additional mathematics courses, such as Math 30 (Differential Equations) and Math 47 (Introduction to Real Analysis).

Students contemplating careers in business or law may wish to take accounting. In turn, students contemplating careers in international economics or business are strongly urged to have a mastery of at least one modern foreign language.

To graduate as a major, a student must: have at least eight credits in economics; meet the theory and statistics requirements; and, in the senior year, pass the comprehensive examination given early in the Spring semester (course students) or the honors examinations given at the end of the Spring semester (honors students). To be prepared for the comprehensive exam, course students are strongly advised to complete Econ 11, Econ 21, and Econ 31 (or its equivalent) before the second semester of their senior year.

Students who are contemplating a major in economics should consult "Economics at Swarthmore: Department Handbook" (available in the department office) for additional information regarding the details of the program.

Economics

COURSES

1. Introduction to Economics.

Covers the fundamentals of micro and macro economics: supply and demand; market structures; income distribution; fiscal and monetary policy in relation to unemployment and inflation; economic growth; and international economic relations. Focuses on the functioning of markets as well as on the rationale for and the design of public policy. Prerequisite for all further work in economics. Primary Distribution Course.

Fall and spring semesters. Staff.

3. The World According to Economics.

This course explores from an economic perspective the economic content of subjects addressed by other disciplines throughout the college. Topics include: pollution, the utilization of non-renewable resources and economic growth, international trade and underdeveloped countries, and markets and social and moral development.

Not offered 1998-99.

5. Savage Inaccuracies: The Facts and Economics of Education in America.

(cross-listed as Education 69): This course investigates the relationship between issues of resource allocation and educational attainment. It examines the facts about student achievement and educational expenditure in the U.S. and the relationship between them. It studies what is known about such questions as: Does reducing class size improve student achievement? Does paying teachers more improve teacher quality and student outcomes? The course also investigates the relationship between educational attainment and wages in the labor market. Finally, it analyzes the effects of various market oriented education reforms such as vouchers and charter schools.

Prerequisites: Economics 1 and any statistics course (or the consent of the instructor), Education 14 is strongly recommended.

Fall semester. Kuperberg.

6. The U.S. Economy & Economic Thought: Roosevelt Through Clinton.

The course will examine the development of the U.S. economy since the nineteen twenties. There will be two major themes—how did eco-

nomics analysis respond to changing economic problems and what effect did the new analysis have on the economic policies that the government pursued.

Spring semester. Saffran.

10. Current Issues in Economic Policy.

Examines current micro and macro economic policy issues. Topics vary year to year depending on developments in the economy. Recent topics have included flagging economy-wide performance, health care, tax reform, and personal finance. The format is seminar-like. Reading material includes the economic and financial pages of current periodicals, reports of think tanks and other current literature.

Fall semester. Saffran.

11. Intermediate Microeconomics.

Provides a thorough grounding in intermediate-level microeconomics. The standard topics are covered: behavior of consumers and firms, structure and performance of markets, income distribution, general equilibrium, and welfare analysis. Students do extensive problem solving to facilitate the learning of theory and see practical applications.

Fall semester. Westphal.

12. Games and Strategies.

How should you bargain for a used car or mediate a contentious dispute? This course is an introduction to the study of strategic behavior and the field of game theory. We analyze situations of interactive decision-making in which the participants attempt to predict and to influence the actions of others. We use examples from economics, business, biology, politics, sports and everyday life. This course may be counted toward a concentration in Peace and Conflict Studies.

Spring semester. Bayer.

21. Intermediate Macroeconomics.

Intermediate-level macroeconomics. Models are developed of the determination of output, interest rates, prices, and other aggregate variables in closed and open economies. Students analyze conflicting views of business cycles, stabilization policy, inflation/unemployment tradeoffs, and fiscal and trade deficits. Extensive problem-solving stresses the application of theoretical tools to policy issues.

Spring semester. Jefferson.

22. Banking and Financial Markets.

This course examines the economics of financial institutions and markets. Among the topics considered are: (1) the payments system; (2) economic explanations for the existence and operations of banks; (3) the regulation of financial institutions and markets; and (4) theories of stock, bond, futures and option prices.

Spring semester. Caskey.

31. Statistics for Economists.

Focus is on understanding how simple and multiple regression can be used to estimate economic relationships—e.g. price or interest elasticities, returns to assets or education—and test their statistical significance. Problems and estimation from real data sets will be stressed in recitation sections. Majors may satisfy the department's statistics requirement by taking an equivalent course, such as Mathematical Statistics 53, or Econ 35.

Fall semester. Hollister.

32. Operations Research.

(Cross-listed with Engineering 57.) The principles of operations research as applied in defining optimal solutions to engineering and economic problems to assist decision making. The working principles of engineering economics are introduced in conjunction with operations research topics. Normally for junior and senior students. Primary Distribution Course, Natural Sciences only; and only if enrolled for Engineering 57.

Prerequisites: elementary linear algebra and high school algebra

Fall semester. McGarity.

33. Accounting.

This course surveys financial and managerial accounting. Covered are concepts and methods of financial accounting following generally accepted accounting principles, and the effects of alternative principles on the measurement of periodic income and financial status. Recent changes in accounting methods, such as those stimulated by manufacturing advances, are examined, as are concerns about ethical standards. (This course can not be used to satisfy the college's distribution requirements.)

Spring semester. deProphetis.

35. Econometrics

Quantitative methods used in estimating economic models and testing economic theories are studied. Students learn to use statistical packages to apply these methods to problems in business, economics and public policies.

Prerequisite: Econ 31 or equivalent; or instructor's permission.

Fall semester. Jefferson.

41. Public Finance.

This course focuses on government expenditure, tax, and debt policy. A major part of the course is devoted to an analysis of current policy issues in their institutional and theoretical contexts. The course will be of most interest to students having a concern for economic policy and its interaction with politics. This course may be counted toward a concentration in Public Policy.

Recommended: Econ 11.

Spring semester. Saffran.

42. Law and Economics.

The purpose of this course is to explore the premises behind the use of utilitarian constructs in the analysis of public policy issues. In particular, the appropriateness of the growing utilization of economic methodology will be examined through an intensive study of issues in property, tort, contract, and criminal law. This course may be counted toward a concentration in Public Policy.

Recommended: Econ 11.

Not offered 1998-99.

43. Public Policy and the American Family.

The American family has undergone tremendous change over the last century: family size has decreased, mothers of young children have entered the labor market in large numbers, the divorce rate and the rate of births to single mothers have risen, and relationships between generations within a family have grown more distant. This course will examine these and related changes and attempt to understand what their causes and effects are and the role that public policy plays in causing the changes or responding to them. This course may be counted toward concentrations in Public Policy and Women's Studies.

Not offered 1998-99.

44. Urban Economics.

The topics covered in this course include: the economic decline of central cities, transportation policies, local taxation, theories of urban growth patterns, local economic development initiatives, and the economics of land use and housing.

Fall semester. Caskey.

51. The International Economy.

This course surveys the theory of trade (microeconomics) and of the balance of payments and exchange rates (macroeconomics). The theories are used to analyze topics such as trade patterns; trade barriers; flows of labor and capital; exchange-rate fluctuations; the international monetary system; and macroeconomic interdependence. This course may be counted toward a concentration in Public Policy.

Prerequisite: Econ 11 or Econ 21; Recommended: both.

Spring semester. Caskey.

53. International Political Economy.

(Cross-listed with Political Science 68) This course uses political and economic perspectives to analyze the international economy. Topics include: the rise and decline of hegemonic powers, the controversy over "free" versus "fair" trade under the GATT/WTO, foreign debt and default, the role of the state in economic development, international financial markets, the history of the international monetary system.

Prerequisite: Pol Sci 4 and Econ 1.

Not offered 1998-99.

61. Industrial Organization.

This course examines why firms and markets are organized as they are and how their organization affects the way they

operate. Topics include the relationship between market structure and firm behavior; particular aspects of firm behavior—pricing, advertising, and collusion; and the effects of regulation. This course may be counted toward a concentration in Public Policy.

Recommended: Econ 11.

Not offered 1998-99.

71. Labor Economics

Labor market operations are the focus. Topics

covered include: determinants of wage and benefit levels; growth in inequality of earnings; employment, unemployment; the changing role of unions; discrimination on the basis of race and gender; the effects of immigration; returns to education. This course may be counted toward concentrations in Black Studies and Women's Studies.

Recommended: Econ 11.

Not offered 1998-99.

73. Women and Minorities in the Economy.

This course focuses on the roles of gender, race and diversity in economic systems. Topics include: the economic status of women and minorities; sources of race and gender inequality, including wage and job discrimination; public policy issues (e.g., comparable worth, affirmative action, child care, welfare reform); bias in economic theory and policy. This course may be counted toward concentrations in Public Policy, Women's Studies, and Black Studies.

Spring semester. Bayer.

75. Health Economics.

Topics addressed in this course include the economics of health care demand and supply; the changing organization of health care delivery; demographic change and demands on the health care system; problems of access to health care services; economic analysis of standard and new medical treatments; supply and demand for doctors and nurses; government financing and regulation; health insurance; comparative analysis of health care systems in different countries. This course may be counted toward a concentration in Public Policy.

Not offered 1998-99.

76. Economics of the Environment and Natural Resources.

Micro and macro economic approaches, long run implications of resource use for economic growth, alternative uses of natural environments and approaches to pollution control. Government response to situations involving externalities, public goods, and common property resources. Case studies. This course may be counted toward concentrations in Environmental Studies and Public Policy.

Recommended: Econ 11.

Spring semester. Westphal.

81. Economic Development

A survey covering the principal theories of economic development and the dominant issues of public policy. Within a perspective that emphasizes choice and transfer of technology as well as technological development, emphasis is given to agricultural and industrial development, to interactions among sectors, and to international trade and capital flows (including foreign aid). This course may be counted toward a concentration in Public Policy, as well as programs in Black Studies and Asian Studies.

Not offered 1998-99.

82. Political Economy of Africa.

A survey of economic development experience in Sub-Saharan Africa, focusing on the post-independence period. We study policy choices in their political and institutional context using case study evidence and the analytical tools of positive political economy. Topics of current interest include the economic role of the state, risk management by firms and households, devaluation in the CFA zone, and international financial flows. This course may be counted towards concentrations in Black Studies and Public Policy.

Fall semester. O'Connell.

83. Asian Economies.

Examines economic development and current economic structure, along with major policy issues (domestic plus *vis-a-vis* the US), in some of the principal economies of Asia, focusing on those in East Asia but including at least one South Asian country as well. A major paper on an Asian economy is required. This course may be counted toward a concentration in Public Policy as well as a program in Asian Studies.

Not offered 1998-99.

99. Directed Reading.

With consent of a supervising instructor, individual or group study in fields of interest not covered by regular course offerings.

Fall and spring semesters. Staff.

SEMINARS

101A. Economic Theory: Advanced Microeconomics (1 credit).

Subjects covered include: consumer and producer theory, optimization and duality, general equilibrium, risk and uncertainty, asymmetric information and game theory.

Prerequisites: Econ 11 and at least one of the following: Math 16, Math 18 or Math 30.

Spring semester. Bayer.

101B. Economic Theory: Advanced Macroeconomics (1 credit).

Subjects covered include: micro foundations of macroeconomics, monetary and fiscal policy with multiple assets, dynamic aggregate supply and demand, growth theory, rational expectations, New Classical and New Keynesian macroeconomics. Techniques used include: comparative statics with linear algebra and economic dynamics with differential equations

Prerequisites: Econ 21 and at least one of the following: Math 16, Math 18 or Math 30.

Spring semester. Kuperberg.

122. Financial Economics.

The seminar examines modern developments in the theory of asset prices and the economics of financial institutions. Topics include: (1) the payments system; (2) economic explanations for the existence and operations of banks; (3) the regulation of financial institutions and markets; and (4) theories of stock, bond, futures, and option prices.

Prerequisites: Econ 11, Math 6A and 6C, and Econ 31.

Spring semester. Caskey.

135. Econometrics.

Quantitative methods used in estimating economic models and testing economic theories are studied. Students learn to use statistical packages to apply these methods to problems in business, economics and public policies. Studies applying econometric methods to major economic issues are critiqued by students. A substantial individual empirical research project is required.

Prerequisite: Econ 31, equivalent, or permis-

Economics

sion of the instructor.

Fall semester. Jefferson.

141. Public Finance.

This seminar focuses on the analysis of government expenditure, tax and debt policy. This course may be counted toward a concentration in Public Policy.

Prerequisite: Econ 11; Recommended: Econ 21.

Spring semester. Saffran.

151. International Economics.

Both micro and macro economics are applied to an in-depth analysis of the world economy. Topics include: trade patterns; trade barriers; international flows of labor and capital; exchange-rate fluctuations; the international monetary system; macroeconomic interdependence; case studies of selected industrialized, developing, and Eastern bloc countries. This seminar may be counted toward a concentration in Public Policy.

Prerequisite: Econ 11 and Econ 21.

Not offered 1998-99.

161. Industrial Organization and Public Policy.

The seminar examines the organization of firms and markets and the relationship between organization and outcomes with respect to pricing, advertising, product differentiation, and other aspects of behavior. Other topics include the effects of antitrust policy; economic regulation and deregulation. This course may be counted toward a concentration in Public Policy.

Prerequisite: Econ 11.

Not offered 1998-99.

171. Labor and Social Economics.

Students discuss such topics as: the organization of work within firms; labor market operations, unions and labor relations, unemployment and macro-conditions; economic analysis education, health care, housing, discrimination; determinants of income inequality; government policies with respect to health, education, and welfare. This course may be counted toward a concentration in Public Policy (one credit) and Black Studies.

Recommended: Econ 11.

Spring semester. Hollister.

181. Economic Development.

A survey of theories of growth, stabilization, income distribution, trade policy, and household behavior in developing countries. Issues of current interest include the Asian "miracle," technological change, and the political economy of government policy. Students write several short papers examining the literature and a longer paper analyzing a particular country's experience. This seminar may be counted toward a concentration in Public Policy, as well as programs in Black Studies and Asian Studies.

Prerequisite: Econ 11 or Econ 21.

Fall semester. O'Connell.

198. Thesis.

With consent of a supervising instructor, honors majors may undertake a senior thesis for double credit.

Fall and spring semesters. Staff.

199. Senior Honors Study.

Senior Honors Study consists of a seminar taken in the second semester of senior year. Majors rewrite and present one seminar paper from each of their three preparations. Minors rewrite and present a seminar paper from their one preparation. These rewritten seminar papers will be sent to the examiner who is examining that preparation. Majors receive 1 credit and minors $\frac{1}{2}$ credit.

Education

K. ANN RENNINGER, Professor

EVA F. TRAVERS, Professor¹

LISA SMULYAN, Associate Professor and Program Director

WESLEY SHUMAR, Visiting Assistant Professor

DIANE ANDERSON, Lecturer

ROBERT GROSS, Dean of Students

KAE KALWAIC, Administrative Assistant

¹ Absent on leave, 1998-99.

The Program in Education has three purposes: to expose students to issues in education from a variety of disciplinary perspectives, to provide a range of field experiences for students who wish to explore their aptitude and interest in teaching, counseling or research in an educational setting, and to prepare students to be certified for entry into public school teaching. Courses in the Program in Education are intended to be integral to the College's academic offerings. The Program's most important goal is to help students learn to think critically and creatively about the process of education and the place of education in society. To this end, both its introductory and upper level courses necessarily draw on the distinctive approaches of Psychology, Sociology, Anthropology, Political Science, Philosophy, and History. Because students major in one of the traditional disciplines, courses in Education offer both an opportunity to apply the particular skills of one's chosen field to a new domain and interaction with other students whose disciplinary approaches may differ significantly from their own. There is a limit of four field-based Education credits (currently Education 16, 17, and 91A) that can be counted toward graduation.

SPECIAL MAJORS

There is no major in Education, but Special Majors with Linguistics, Political Science, Psychology, and Sociology/Anthropology are regularly approved, and Special Majors with other fields can be developed. Special Majors involving Education usually include ten to twelve credits, generally six credits in the pri-

mary department and four in Education or at least five in each of the two disciplines. A thesis or a comprehensive examination integrating work in the two fields is required. Both departments collaborate in advising students pursuing Special Majors.

HONORS PROGRAM

Students may pursue the Honors Program in Education either as a part of a Special Major or as a Minor. *Special Major Honors Programs* will take one of the following forms: 1) two preparations in Education and two in the other discipline that is part of their special major; 2) three preparations in Education and one in the other discipline; or 3) two and a half preparations in Education and one and a half in the other discipline (or vice versa) when an integrative, two-credit thesis receives one credit from both departments. All *Education Special Majors* in the Honors Program will complete a two credit thesis and will write an intellectual essay which will be included in a portfolio submitted to the honors examiner. *Education Minors* in the Honors Program will take either a two credit seminar or a course and attachment to prepare for the external examination and will also write an integrative essay for their portfolio.

FOREIGN STUDY

Students may apply for Education credit for work done abroad (either in a formal course or in a field placement in an educational setting).

Education

provided that they have taken Introduction to Education at Swarthmore. The Swarthmore course may be taken prior to study abroad or subsequent to it.

TEACHER CERTIFICATION

Swarthmore offers a competency-based teacher preparation program for students who seek secondary certification from the Commonwealth of Pennsylvania. Competency is judged by an interdisciplinary committee of the faculty whose members have established criteria for certification in Biology, Chemistry, English, French, German, Mathematics, Physics, Spanish, and Social Studies. Individual programs are developed in conjunction with departmental representatives and members of the Education staff. All students seeking certification must meet Swarthmore College's general requirements for course distribution and a major. A list of specific requirements for certification in each subject area are available in the Education Office as well as the relevant departmental office.

9th semester option: Students who have completed all the requirements for certification in their discipline and in Education, except for Student Teaching (Education 16) and Curriculum and Methods Seminar (Education 17) may apply to return following graduation to complete the teacher certification program during a ninth semester. During this semester they take Education 16 and 17; they pay for a total of one course of tuition; and are not eligible for campus housing. Further information on the 9th semester option is available in the Education Office.

Elementary certification: Swarthmore College does not offer certification in elementary education. However, if students complete the Swarthmore courses listed below and enroll for two courses at Eastern College (Communication Arts For Children and Teaching of Reading), they can receive elementary certification through Eastern College. The required Swarthmore courses for elementary certification are: Introduction to Education, Educational Psychology, Developmental Psychology, Teaching the Young Learner, Practice Teaching, Curriculum and Methods Seminar, and a series of workshops in Math, Social

Studies and Science Methods.

REQUIREMENTS FOR SECONDARY TEACHER CERTIFICATION

Students planning to seek secondary certification should take Introduction to Education, Educ. 14, by the end of their Sophomore year and enroll for Practice Teaching, Educ. 16 (a double credit course) and Curriculum and Methods Seminar, Educ. 17 in their senior year or during a ninth semester. In addition, they must complete the following sequence of courses:

- Educational Psychology, Educ. 21
- Adolescence, Educ. 23
- An additional elective course from the following:
 - a. Counseling: Principles and Practices, Educ. 25
 - b. Special Education Issues and Practice, Educ. 26
 - c. Educating the Young Learner, Educ. 42
 - d. Ethnographic Perspectives in Education, Educ. 48
 - e. Gender and Education, Educ. 61
 - f. School and Society, Educ. 63
 - g. Environmental Education, Educ. 65
 - h. Child Development and Social Policy, Educ. 66
 - i. Political Economy of Education, Educ. 67
 - j. Urban Education, Educ. 68

An Honors Seminar in education may be substituted for the elective course.

Students will be admitted to the certification program after submitting their Sophomore Paper and taking Introduction to Education. Students must attain at least a grade point average of C in courses in their major field of certification and at least a grade of C+ in Introduction to Education in order to student teach. In addition, students must be recommended by their major department, by their Cooperating Teacher in Introduction to Education, and by members of the faculty in Education who have taught the student. Placement of students for practice teaching is contingent on successful interviews with the

Director of the Education Program and with appropriate secondary school personnel.

COURSES

1C. The Writing Process.

(See English 1C.)

Fall semester. Blackburn.

14. Introduction to Education.

A survey of issues in education within an interdisciplinary framework. In addition to considering the theories of individuals such as Dewey, Skinner, and Bruner, the course explores some major economic, historical, and sociological questions in American education and discusses alternative policies and programs. The course gives students an opportunity to determine their own interest in preparing to teach, and furnishes them with first-hand experience in current elementary and secondary school practice. Field work is required. This course is normally a prerequisite for further course work in Education.

Primary distribution course.

Each semester. Staff.

16. Practice Teaching.

Supervised teaching in either secondary or elementary schools. Double credit. Students seeking secondary certification must take Education 17 concurrently. (Single credit practice teaching may be arranged for individuals not seeking secondary certification.)

Each semester. Staff.

17. Curriculum and Methods Seminar.

This course will consider theoretical and applied issues related to effective classroom instruction. It must be taken concurrently with Educ. 16.

Each semester. Staff.

21. Educational Psychology.

(Also listed as Psychology 21.) This course focuses on issues in learning and development which have particular relevance to understanding student thinking. Research and theoretical work on student learning and development provide the core readings for the course. In addition, students tutor in local schools and participate in a laboratory section which pro-

vides an introduction to the process of research.

Fall semester. Renninger.

23. Adolescence.

(Also listed as Psychology 23.) This course uses a developmental perspective to examine salient characteristics of adolescence. The goal is to obtain a theoretical understanding of adolescence and an overview of major research. During the first part of the term, students explore various aspects of individual development (e.g., cognitive, affective, physiological, etc.). The second part of the semester focuses on the adolescent's adaptation in major social contexts (e.g., family, peer group, school, etc.).

Spring semester. Smulyan.

25. Counseling: Principles and Practice.

An introductory course which critically examines counseling theories and techniques used within the context of school and community-based counseling agencies. Students will develop and practice counseling skills through case studies, role plays, and other modelling exercises.

Not offered 1998-99. Metherall-Brenneman.

26. Special Education: Issues and Practice.

This course explores current definitions and approaches to the field of Special Education, focusing mainly on the learning disabled and socio-emotionally troubled student populations. Classwork includes readings from both Education and Psychology. Field placement required.

Spring semester. Linn.

42. Educating the Young Learner.

This course explores the ways in which children construct meaning within their personal, community, and school lives. Areas to be explored include conditions of learning, constructivist theory, problem solving, reading, schema theory, the intersection of school, home, and community contexts, ways in which we can learn from the learner, and the similarities and differences in learning in various disciplines. Field placement is required. Required for elementary teaching certification.

Spring semester. Anderson.

Education

48. Ethnographic Perspectives in Education.

This course examines the issues of culture, identity, and learning in a number of current ethnographies of education. Questions of the status of knowledge, teacher-student relations, teacher-administrator relations, and the role of schools will be explored.

Not offered 1998-99.

54. Oral and Written Language.

(See Linguistics 54.)

Not offered 1998-99. Napoli.

61. Gender and Education.

This course uses historical, psychological, and social frameworks to explore the role of gender in the educational process. It examines student, teacher and administrator experience in schools, concentrating on how gender influences experiences of teaching and learning and how schools both contribute and respond to social constructions of gender. It also looks at how curriculum, school structures and patterns of classroom interaction reflect and reinforce gendered constructions of self and knowledge and explores the extent to which schools can be agents of social change. Some fieldwork required.

Fall semester. Smulyan.

63. School and Society.

(Also listed as Soc./Anthro. 69.) This course examines the paradoxical nature of schools as possible agents of social change and as institutions which perpetuate existing social structures. It focuses on the relationships between individuals and schools and the relationships among individuals, institutions, and the larger society within which they operate.

Not offered 1998-99. Smulyan.

65. Environmental Education.

This course will explore the developments in environmental education, earth education and Watershed programs from practical, curricular and philosophical perspectives. We will assess the possibility of making environmental education a central part of the curriculum. We will investigate political and economic issues of environmental racism and the ways in which programs in communities and schools have responded. Students will

survey current programs, curricula and research and consider the role of formal education in generating environmental awareness in light of global ecological crises. Fieldwork is required.

Fall semester. Shumar.

66. Child Development and Social Policy.

This course provides students with an understanding of the implications of developmental psychology for social policy. Literature in child development and educational psychology is used to study particular educational problems and policies. Field research is required.

Not offered 1998-99. Renninger.

67. Political Economy of Education.

(Also listed as Political Science 35.) This course will explore the political economic forces in U.S. society and relate them to the history of American education. In particular, we will examine the ways in which inequalities have been structured in the U.S. economy and the impact of those inequalities on schools.

Not offered 1998-99. Shumar.

68. Urban Education.

(Also listed as Sociology-Anthropology 68.) This course will focus on issues facing urban educators and policy makers, including desegregation, compensatory education, curricular innovation, decentralization, bilingual education, standardized testing, school restructuring, and multiculturalism. Field work is required.

Not offered 1998-99. Travers.

69. Savage Inaccuracies: The Facts and Economics of Education in America.

(Also listed as Economics 5.) This course investigates the relationship between issues of resource allocation and educational attainment. It examines the facts about student achievement and educational expenditures in the U.S. and the relationship between them. It studies what is known about such questions as: Does reducing class size improve student achievement? Does paying teachers more improve teacher quality and student outcomes? The course also investigates the relationship between educational attainment

and wages in the labor market. Finally, it analyzes the effects of various market oriented education reforms such as vouchers and charter schools.

Prerequisites: Economics 1 and any statistics course (or the consent of the instructor), Education 14 is strongly recommended.

Fall semester. Kuperberg.

70. The Arts as Community Service/ Social Change.

(See Dance 70.)

Spring semester. Sepinuck.

91A. Special Topics.

With the permission of the instructor, qualified students may choose to pursue a topic of special interest in education through a field project involving classroom or school practice.

Available as a credit/no credit course only.

Each semester. Staff.

91B. Special Topics.

With the permission of the instructor, students may choose to pursue a topic of special interest by designing an independent reading or project which usually requires a comprehensive literature review, laboratory work, and/or field-based research.

Each semester. Staff.

96-97. Thesis.

One or two credits, normally in conjunction with Special Majors.

Prerequisites: Education 14 and 21.

Spring semester. Renninger.

131. Social and Cultural Perspectives on Education.

In this seminar, students examine schools as institutions that both reflect and challenge existing social and cultural patterns of thought, behavior, and knowledge production.

Not offered 1998-99. Smulyan.

141. Educational Policy.

This seminar will analyze and evaluate educational policy issues and implementation at the federal, state and local levels. Field work in a policy-related educational organization will be required.

Not offered 1998-99. Travers.

180 Honors Thesis.

A two-credit thesis is required for students completing Special Honors Majors including Education. The thesis may be counted for two credits in Education or for one credit in Education and one credit in the other discipline in the student's Honors program.

SEMINARS

121. Child Psychology and Practice.

Selected topics in child psychology will be read and their implications for theory, method and practice will be considered. Students will be involved in: a) developing an understanding of the relation between change and development through study of the constraints and conditions necessary for learning; b) designing a tutorial setting which responds to the needs of students, parents and the school; and c) articulating links between issues in cognitive science and topics in education.

Engineering

H. SEARL DUNN, Professor
NELSON A. MACKEN, Professor²
ARTHUR E. McGARITY, Professor
FREDERICK L. ORTHLIEB, Professor³
FARUQ M.A. SIDDIQUI, Professor and Chair
ERIK CHEEVER, Associate Professor
ERICH CARR EVERBACH, Associate Professor
LYNNE A. MOLTER, Associate Professor
BRUCE A. MAXWELL, Assistant Professor
ROSE E. MARTIN, Administrative Assistant

2 Absent on leave, spring semester, 1999.

3 Absent on leave, 1998-99.

The professional practice of engineering requires creativity and confidence in applying scientific knowledge and mathematical methods to the solution of technical problems of ever-growing complexity. The pervasiveness of advanced technology within our economic and social infrastructures demands that engineers more fully recognize and take into account potential economic and social consequences that may follow from resolving significant and analytically well-defined technical issues. A responsibly educated engineer must therefore not only be in confident command of current analytic and design techniques, but also have a thorough understanding of social and economic influences and an abiding appreciation for cultural and humanistic traditions. Our program supports these needs by offering each engineering student the opportunity to acquire a broad yet individualized technical and liberal education.

Mission of the Engineering Program: As stated in the Introduction page of this catalog, Swarthmore seeks to help its students realize their fullest intellectual and personal potential, combined with a deep sense of ethical and social concern. Within this context, the Department of Engineering seeks to graduate students with a broad, rigorous education emphasizing strong analysis and synthesis skills. Our graduates will be well-rounded and responsible, and able to adapt to new technical challenges, communicate effectively and collaborate well with others.

Objectives of the Engineering Program: Graduates

with the BS degree in Engineering will have:

1. proficiency in the analysis of engineering systems;
2. proficiency in engineering design;
3. a broad background in the liberal arts;
4. effective oral and written communications skills; and
5. the ability to adapt to changing situations and new technical challenges.

Our departmental major program leading to the degree of Bachelor of Science in Engineering is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

The structure of the Department's curriculum permits engineering majors to devote as much as three eighths of their course work to the humanities and social sciences. About half our majors pursue either a concentration or a double major leading to two degrees, the Bachelor of Science in Engineering and a Bachelor of Arts in a second academic discipline within their four-year course of study. Departmental approval of a Double Major requires a B average among courses in Mathematics, Science and Engineering.

The Department's physical facilities include laboratories for general instruction and individual student projects in electronics, electromagnetism, optics, systems dynamics and control, communications, engineering materials, solid and structural mechanics, fluid mechanics, fossil and solar energy conversion, acoustics, non-linear dynamics, and environ-

mental water and air pollution control. Within these laboratories is a wide variety of modern measurement equipment configured for computer-assisted data acquisition and process control; data files are directly accessible from the college computer network. A workstation laboratory with high performance color graphics and industry-standard engineering design, analysis and graphics software is also part of our departmental facilities. Electronics, metal and woodworking shops that support our courses and laboratories are also available for student use.

Courses Readily Available to Non-Majors

High Performance Composites (1), Exploring Acoustics (2), Problems in Energy Technology (3), and Art and Science of Structures (7) are designed chiefly for students contemplating only an introduction to engineering. Mechanics (6) is primarily for prospective majors, but other interested students, particularly those preparing for a careers in architecture or biomechanics, are encouraged to enroll. Introduction to Environmental Protection (32), Operations Research (57), Solar Energy Systems (35), Water Quality and Pollution Control (63), Swarthmore and the Biosphere (64), Environmental Systems (66), and Environmental Policy (68) appeal to many students majoring in other departments, particularly those pursuing the Environmental Studies concentration. Students interested in computers, including those in the Computer Science concentration, may wish to consider Digital Logic Design (21), Microprocessors and Computer Architecture (22) and Computer Graphics (26). Students majoring in the physical sciences or mathematics may enroll routinely in advanced engineering courses.

Students may major or minor in the Honors Program in the Engineering Department by taking appropriately related advanced engineering courses in preparation for external examinations. Department faculty also support concentrations in Computer Science and Environmental Studies and a special major with the Program in Linguistics.

Program for Engineering Majors

General departmental requirements fall into three categories: successful completion of at least (i) twelve engineering courses, (ii) four courses in the sciences which must include

Physics 3 & 4 or 7 & 8 (taken or begun in the freshman year) and Chemistry 10 (or a more advanced chemistry course), and (iii) four courses in mathematics, including Math 5 and 6 (to be taken in the first year), Math 18, and Math 30 (normally taken in the sophomore year). No courses intended to satisfy these departmental requirements, except those taken Fall semester in the first year, may be taken Credit/No Credit. The unspecified science course in category (ii) should be chosen to complement the student's overall program of study; only courses acceptable for credit toward a minimal major in the offering department are admissible toward an Engineering major. Within category (i), the following core courses are required of all students: Mechanics, Physical Systems Analysis I and II, Experimentation for Engineering Design, Thermofluid Mechanics, and Engineering Design. Of these, the first four are normally taken as follows: Mechanics in the spring semester of first year, Physical Systems Analysis I in the fall semester of sophomore year and the next two in the spring semester of sophomore year. Thermofluid Mechanics is normally taken in the fall of junior year, and Engineering Design, the culminating experience for engineering majors, must be taken in the spring of senior year. Submission and oral presentation of the Final Project Report in Engineering Design constitutes the comprehensive examination for majors in Engineering.

Elective Program for Course Majors: In consultation with his or her advisor, each student devises a program of advanced work in the Department. These programs, normally including six courses, are submitted for Departmental approval as part of the formal application for a major in engineering during the spring semester of sophomore year.

A student's elective program may or may not conform to some traditional or conventional area of engineering specialization, e.g., electrical, mechanical, civil. Thus, for each plan of advanced work, the Department requires a coherent, well-justified program that, in its judgment, meets the student's stated educational objectives.

Typical elective program plans include:

- (1) electrical engineering group: Electronic Circuit Applications, Physical Electronics, Semi-conductor Devices and Circuits,

Electrodynamics, and Control Theory and Design. Students having an interest in digital systems might replace one or more of these courses with Digital Logic Design, Microprocessors and Computer Architecture, or Computer Graphics;

- (2) computer engineering group: Digital Logic Design, Microprocessors and Computer Architecture, and Computer Graphics. Students with an interest in computer hardware may include Electronic Circuit Applications, Semiconductor Devices and Circuits, Physical Electronics or Control Theory and Design;
- (3) mechanical engineering group: Mechanics of Solids, Engineering Materials, Fluid Mechanics, Heat Transfer, Thermal Energy Conversion, Solar Energy Systems, or Control Theory and Design;
- (4) civil and environmental engineering group: basic preparation includes Mechanics of Solids, Structural Theory and Design I, Soil and Rock Mechanics, and Water Quality and Pollution Control. Additional courses include Operations Research and Environmental Systems for those interested in the environment or urban planning, or Structural Theory and Design II for those interested in architecture or construction. Other recommended courses include Solar Energy Systems, Fluid Mechanics, and Engineering Materials.

Note that High Performance Composites, Exploring Acoustics, Problems in Energy Technology, Art & Science of Structures, Introduction to Environmental Protection, Swarthmore & the Biosphere, and Environmental Policy are not admissible as technical electives within an Engineering major but may be taken as free electives subject to the 20-Course Rule.

Honors Program in Engineering: Students with a B+ average among courses in engineering, science, and mathematics may apply to stand for honors in engineering. Honors majors must complete all of the regular math, science, and core engineering requirements and accumulate at least 12 full course credits in engineering; an honors thesis taken in the Fall of senior year may substitute for one of the usual six engineering electives. One of the three engineering preparations required for every honors degree

in engineering must include E90. Examination is normally offered for two-credit preparations in areas listed following the course descriptions; others are possible by special arrangement.

More specific information about honors and course programs is distributed by the department to prospective engineering majors in December of each year.

COURSES

1. High Performance Composites.

Introduction to the structure, properties and performance of modern composites in sports equipment, automotive and aerospace applications. Simple models of material behavior are developed and used to examine products like ski poles, fishing rods, tennis racquets, radial tires and human-powered aircraft. Labs include making and testing a number of polymer and ceramic matrix composites, plus a research project of the student's choice. Primarily for students not majoring in engineering.

High School Physics recommended.

Primary distribution course.

Not offered 1998-99.

2. Exploring Acoustics.

(Also listed as Linguistics 2) A course to provide students with exposure to basic scientific and engineering principles through an exploration of the acoustics of musical instruments, the human voice, structures, and the environment. Emphasis on hands-on analysis with a minimum use of mathematics. For students not majoring in engineering. Includes laboratory.

Spring semester. Not offered 1998-99.

3. Problems in Technology.

For students not majoring in science or engineering. This year, the course will concentrate on the automobile and its impact on society. Technical, political and socioeconomic aspects will be discussed. Class members will also work on teams with engineering students in designing, building and testing a hybrid electric car. Enrollment limited.

Primary distribution course.

Fall semester 1998.

5. Engineering Methodology.

A fall half-credit course for those interested in engineering, presenting techniques and tools that engineers use to define, analyze, solve, and report technical problems and an introduction to department facilities. Designed for students who are potential majors as well as those interested only in an introduction to engineering. While E5 is not a required course for prospective engineering majors, it is strongly recommended.

Fall semester.

6. Mechanics.

Fundamental areas of statics and dynamics. Elementary concepts of deformable bodies including stress-strain relations, beam, torsion, and stress transformations. Laboratory work is related to experiments on deformable bodies, and includes a MATLAB workshop.

Prerequisite: Physics 3 or equivalent.

Primary distribution course.

Spring semester.

7. Art and Science of Structures.

An introduction to the basic principles of structural analysis and design including an emphasis on the historical development of modern structural engineering. Suitable for students planning to study architecture, architectural history, or with an interest in structures. Includes laboratory. For students not majoring in engineering.

Fall semester. Not offered 1998-99.

9. How Things Change.

A study of dynamic systems requiring no formal mathematics. The course will be based upon a Macintosh simulation program (STELLA II) that is entirely icon driven and which relies upon a metaphoric description to envision and model even the most complicated situations. Examples will be taken from many fields of study; representative topics include the dynamics of competing populations, the spread of epidemics, the evolution of business cycles, the operation of automobile cruise control systems, and examples of chaotic systems. Though no knowledge of calculus is necessary, some familiarity with mathematical operations and confidence in using numbers, e.g., birth rates, growth rates, interest rates, etc., is assumed.

Spring semester. Not offered 1998-99.

11, 12. Physical Systems Analysis I and II.

The study of engineering phenomena which may be represented by a linear, lumped-parameter model. E11 (fall semester) is oriented mainly toward electrical devices and the development of mathematical techniques for the analysis of their linear behavior. E12 (spring semester) is more concerned with mechanical, thermal, and fluid systems. Includes laboratory. Credit may be given for either semester, or both. Prerequisites: Math 6 and Physics 4 (or equivalent) or permission of instructor.

E11: *Fall semester.*

E12: *Spring semester.*

14. Experimentation for Engineering Design.

Introduction to probability, statistical analysis, measurement errors and their use in experimental design, planning, execution, data reduction and analysis. Techniques of hypothesis testing, single and multivariable linear and nonlinear regression, process simulation and methods of engineering economics. Includes laboratory.

Co-Prerequisites: E11 and 12.

Spring semester.

21. Digital Logic Design.

Systematic techniques for designing combinatorial (time-invariant), sequential (clocked) and asynchronous (non-clocked) digital circuits, based on principles of Boolean algebra. Use of standard TTL logic gates and higher level integrated circuits such as memories, programmable-logic devices, and analog/digital converters. Emphasis on CAD programs for logic simulation and minimization.

Prerequisites: none.

Fall semester.

22. Microprocessors and Computer Architecture.

An in-depth tour of current computer technology, including selected RISC and CISC microprocessor instruction sets and addressing modes, superscalar architectures, interrupts and DMA, peripherals, memory system hierarchy, virtual memory, and computer networks. Fundamental operating system

concepts Parallel and distributed computer systems. The laboratory will include studies of specific machines from microcontrollers to workstations.

Prerequisites: CS21, some experience with UNIX and 'C', or permission of instructor.

Cross-listed with CS23.

(<http://engin.swarthmore.edu/~web/courses/e22>).

Spring semester.

26. Computer Graphics.

Techniques used to model and display three-dimensional scenes. Topics include 2D and 3D transformations, clipping, scan conversion, projections, coordinate systems, rendering, ray tracing, representing curves/surfaces/solids, color, lighting, and software and hardware for graphics systems. A laboratory will involve programming user-interface systems and images using the X11 package, an interactive X toolkit, and PEX.

Prerequisites: CS21, extensive familiarity with 'C', or permission of instructor. Linear algebra and some calculus is helpful.

Cross-listed with CS40.

(<http://engin.swarthmore.edu/~web/courses/e26>).

Fall semester, alternate years. Not offered 1998-99.

32. Introduction to Environmental Protection.

Primarily for those not majoring in engineering, this course focuses on solutions to environmental problems in the areas of water supply, water pollution, air pollution, and energy supply. Local and global pollution control and solar energy technologies are examined. Public policy developments and alternative perspectives are explored. Methods of computer-based systems analysis are introduced for developing economically effective environmental protection policies.

Fall semester. Not offered 1998-99.

35. Solar Energy Systems.

Fundamental physical concepts and system design techniques of solar energy systems. Topics include solar geometry, components of solar radiation, analysis of thermal and photovoltaic solar collectors, energy storage, computer simulation of system performance,

computer aided design optimization, and economic feasibility assessment. Includes laboratory.

Prerequisites: E12 or equivalent or consent of instructor.

Fall semester, alternate years. Not offered 1998-99.

41. Thermofluid Mechanics.

Introduction to macroscopic thermodynamics; first and second laws, properties of pure substances, applications using system and control volume formulation. Introduction to fluid mechanics; development of conservation theorems, hydrostatics, dynamics of one-dimensional fluid motion with and without friction. Includes laboratory.

Prerequisites: E12 and E14 (or equivalent background).

Fall semester.

57. Operations Research.

(Also listed as Economics 32). Introduces students to computer based modeling and optimization for the solution of complex, multivariable problems such as those relating to efficient manufacturing, environmental pollution control, urban planning, water and food resources, and arms control. Includes case study project.

Prerequisites: elementary linear algebra.

Primary distribution course, Natural Sciences only; and only if enrolled for Engineering 57.

Fall semester.

58. Control Theory and Design.

Introduction to the control of engineering systems. Analysis and design of linear control systems using root locus and frequency response techniques. Over-driven operation of first- and second-order controlled systems. Digital control techniques, including analysis of A/D and D/A converters, digital filters, and numerical control algorithms. Includes laboratory.

Prerequisite: E12 or equivalent.

Spring semester.

59. Mechanics of Solids.

Internal stresses and changes of form that occur when forces act on solid bodies or when internal temperature varies. State of stress and strain, strength theories, stability,

deflections, and elementary design. Measurement of strain. Includes laboratory.

Prerequisite: E6 or equivalent.

Fall semester.

60. Structural Theory and Design 1.

Fundamental principles of structural mechanics. Statically determinate analysis of frames and trusses. Approximate analysis of indeterminate structures. Virtual work principles. Elements of design of steel and concrete structural members. Includes laboratory.

Prerequisite: E59, or permission of instructor.

Spring semester, alternate years. Offered 1999.

61. Geotechnical Engineering: Theory and Design.

Soil and rock mechanics, including soil and rock formation, soil mineralogy, soil types, compaction, soil hydraulics, consolidation, stresses in soil masses, slope stability and bearing capacity. Application to engineering design problems. Includes laboratory.

Prerequisite: E6 or permission of instructor. May be taken concurrently with E59.

Fall semester, alternate years. Offered Fall 1998.

62. Structural Theory and Design II.

Advanced structural analysis. Classical and matrix methods of analysis. Digital computer applications. Design of steel and concrete structures. Includes laboratory.

Prerequisite: E60.

Fall semester. Not offered 1998-99.

63. Water Quality and Pollution Control.

Elements of water quality management and treatment of wastewaters. Measurement of water quality indicators. Analysis of wastewater treatment processes. Sewage treatment plant design. Computer modeling of the effects of waste discharge on rivers and estuaries. Environmental impact assessment. Laboratory and field studies included.

Prerequisite: E12 or equivalent or consent of instructor.

Fall semester, alternate years. Offered 1998.

64. Swarthmore and the Biosphere.

An interdisciplinary seminar-style investigation of the role of Swarthmore College and its community within the biosphere, including an intensive field-based analysis of one major

aspect of Swarthmore's interaction with its environment, such as food procurement, waste disposal, or energy use. The selected topic is explored from various perspectives by student project groups, and the class proposes and attempts to implement solutions. Faculty from various departments provide background lectures, lead discussions of approaches outlined in the literature, and coordinate project groups. Classes meet once weekly for lectures, student progress reports, and project planning. Cross-listed in the instructors' departments.

Not offered 1998-99.

66. Environmental Systems.

Mathematical modeling and systems analysis of problems in the fields of water resources, water quality, air pollution, urban planning and public health. Techniques of optimization including linear and integer programming are used as frameworks for modeling such problems. Dynamic systems simulation methods included. Laboratory included.

Prerequisite: E57, or equivalent.

Spring semester, alternate years. Offered 1999.

68. Environmental Policy.

(Also listed as Political Science 43). Topics in environmental analysis, policy formulation and pollution regulation.

Offered when demand and staffing permit.

71. Discrete Time Systems.

Review of mathematical methods and system models for linear continuous time systems. Introduction to difference equations and discrete-time transform theory; the Z-transform and Fourier representation of sequences; fast Fourier transform algorithms. Discrete-time transfer functions and filter design techniques. Laboratory included.

Prerequisite: E12.

Fall semester. Offered 1998.

72, 72(a). Electronic Circuit Applications.

Of interest to a broad range of students in the sciences; E72(a) is a half credit course comprising only the laboratory section of E72. The student will learn the fundamentals of electronic circuit design starting with a brief survey of semiconductor devices including diodes, and bipolar and field effect transistors. The course continues with op-amp applications, including instrumentation and filter design. The use of

digital logic is also explored. The second half of the course introduces more advanced topics and more sophisticated design techniques. Throughout the course practical considerations of circuit design and construction are covered, including grounding and shielding and several construction techniques (point-to-point, wire-wrap, printed circuits). Includes laboratory.

Prerequisite : E11 or Physics 8.

Fall semester.

73. Physical Electronics.

Physical properties of semiconductor materials, semiconductor devices, and simple circuits. The physics of electron/hole dynamics; band and transport theory; and electrical, mechanical and optical properties of semiconductor crystals. Devices examined include diodes, transistors, FET's, LED's, lasers and pin photo-detectors. Modeling and fabrication processes. Includes laboratory.

Prerequisites: E11 or Physics 8.

Not offered 1998-99.

74. Semiconductor Devices and Circuits.

Operation and application of semiconductor devices, including diodes, transistors (bipolar and field effect) and other devices such as CCD's, SCR's, and TRIAC's. The terminal characteristics of the semiconductor devices and circuits, including small signal models of single transistor audio amplifiers, multi-transistor amplifier stages and a transistor-level understanding of operational amplifiers. A comparative analysis of the different logic families, at the transistor level, is given along with power circuits and problems of stability and oscillations in electronic circuits. Includes laboratory.

Prerequisites: E11 or Physics 8.

Spring semester, alternate years. Not offered 1999.

75, 76. Electromagnetic Theory I and II.

Static and dynamic treatment of engineering applications of Maxwell's equations. Macroscopic field treatment of interactions with dielectric, conducting, and magnetic materials. Analysis of forces and energy storage as the basis of circuit theory. Electromagnetic waves in free space and guidance within media; plane waves and modal propagation. Polarization, reflection, refraction, diffraction,

and interference. Engineering 76 will include advanced topics in optics and microwaves, such as laser operation, resonators, Gaussian beams, interferometry, anisotropy, nonlinear optics, modulation and detection, and current technologies such as holography. Laboratories for both courses will be oriented toward optical applications using lasers, fiber and integrated optical devices, modulators, nonlinear materials, and solid state detectors.

Prerequisite: E12 or equivalent. E75 or Physics equivalent is a prerequisite for E76.

E75: *Fall semester, alternate years. Not offered 1998.*

E76: *Spring semester, when demand and staffing permit.*

78. Communication Systems.

Theory and design principles of analog and digital communication systems. Topics include frequency domain analysis of signals; signal transmission and filtering; random signals and noise; AM, PM, and FM signals; sampling and pulse modulation; digital signal transmission; PCM; coding; and information theory. Applications to practical systems such as television and data communications. Includes laboratory.

Prerequisite: E12 or equivalent.

Offered when student interest and staffing permit. Offered Spring 1999.

81. Thermal Energy Conversion.

Development and application of the principles of thermal energy analysis to energy conversion systems, including cycles and solar energy systems. The concepts of availability, ideal and real mixtures, chemical and nuclear reactions. Includes laboratory.

Prerequisite: E41.

Spring semester, alternate years. Not offered 1999.

82. Engineering Materials.

Introduction to material structure, properties and processing. Analysis of microstructures, physical properties, thermal and mechanical transformation of metals, polymers, concrete, wood and a variety of composites. Material selection in design, laboratory testing for quality assurance and performance evaluation in service are included through labs and a semester project.

Co-Prerequisite: E59 or permission of instructor.

Fall semester, alternate years. Not offered 1998.

83. Fluid Mechanics.

Fluid mechanics is treated as a special case of continuum mechanics in the analysis of fluid flow systems. Conservation of mass, momentum and energy. Applications to the study of inviscid and viscous, incompressible and compressible fluids. Includes laboratory.

Prerequisite: E41.

Spring semester, alternate years. Offered 1999.

84. Heat Transfer.

Introduction to the physical phenomena involved in heat transfer. Analytical techniques are presented together with empirical results to develop tools for solving problems in heat transfer by conduction, forced and free convection and radiation. Numerical techniques are discussed for the solution of conduction problems. Includes laboratory.

Co-Prerequisite: E41.

Fall semester, alternate years. Offered 1998.

90. Engineering Design.

Students work on a design project which is the culminating exercise for all senior Engineering majors. Under the guidance of a faculty member, students investigate a problem of their choice in an area of interest to them. A written report and an oral presentation are required.

Spring semester.

91. Special Topics.

Subject matter dependent upon a group need or individual interest. Normally restricted to seniors and offered only when staff interest and availability make it practicable.

93. Directed Reading or Project.

With the permission of the Department and a willing faculty supervisor, qualified students may do special work with theoretical, experimental, or design emphasis in an area not covered by regular courses.

96. Honors Thesis.

With approval of the Department and a faculty advisor, an honors major may undertake in addition to E90 an Honors Thesis in the Fall semester of senior year. A prospectus of the thesis problem must be submitted and approved not later than the end of junior year.

PREPARATION FOR HONORS EXAMINATIONS

The Department will arrange Honors Examinations in the following areas to be prepared for by the combinations of courses indicated. Other preparations are possible by mutual agreement.

Communications

Communication Systems
Electromagnetic Theory

Computer Design

Microprocessors and Computer Architecture
Computer Graphics

Continuum Mechanics

Mechanics of Solids
Fluid Mechanics

Control Theory and Digital Laboratory Applications

Computer Graphics
Control Theory and Design

Digital Systems

Digital Logic Design
Microprocessors and Computer Architecture

Electronics

Electronic Circuit Applications
Semiconductor Devices and Circuits

Electromagnetic Theory

Electromagnetic Theory I and II

Environmental Systems

Operations Research
Environmental Systems

Materials Engineering

Mechanics of Solids
Engineering Materials

Solar Thermal Systems

Solar Energy Systems
Thermal Energy Conversion or Heat Transfer

Structural Analysis and Design

Structural Theory and Design I and II

Structures and Soils

Structural Theory and Design I
Geotechnical Engineering

Engineering

Thermal Energy Conversion

Thermal Energy Conversion

Heat Transfer

Water Quality and Supply Systems

Water Quality and Pollution Control

Environmental Systems

English Literature

NATHALIE ANDERSON, Professor¹
THOMAS H. BLACKBURN, Professor
CHARLES L. JAMES, Professor and Chair
PETER J. SCHMIDT, Professor
PHILIP M. WEINSTEIN, Professor²
CRAIG WILLIAMSON, Professor²
HERMAN BEAVERS, Visiting Associate Professor (part-time)⁵
ABBE BLUM, Associate Professor²
ELIZABETH BOLTON, Associate Professor³
LISA COHEN, Visiting Assistant Professor
RAIMA EVAN, Visiting Assistant Professor (part-time)
NORA JOHNSON, Assistant Professor
CAROLYN LESJAK, Assistant Professor
RUTH LINDBORG, Visiting Assistant Professor (part-time)⁵
EMILIE PASSOW, Assistant Professor (part-time)
PATRICIA WHITE, Assistant Professor
MICHELLE HERMANN, Visiting Instructor⁵
FRANK K. SARAGOSA, Instructor
CAROLYN ANDERSON, Administrative Assistant

THEATRE STUDIES

LEE DEVIN, Professor
ALLEN KUHARSKI, Associate Professor, Resident Director, and Director of Theatre Studies
WILLIAM MARSHALL, Associate Professor and Resident Designer
ABIGAIL ADAMS, Visiting Lecturer (part-time)
ROGER BABB, Visiting Lecturer (part-time)⁵
CARLA BELVER, Visiting Lecturer (part-time)
MARCIA FERGUSON, Visiting Lecturer (part-time)⁴

1 Absent on leave, fall semester, 1998.

2 Absent on leave, spring semester, 1999.

3 Absent on leave, 1998-99.

4 Fall semester, 1998.

5 Spring semester, 1999.

This Department offers courses in English literature, American literature, African and Caribbean literatures, and Asian-American literatures, Gay and Lesbian literatures, theatre, film, some foreign literatures in translation, creative writing, and critical theory. The departmental curriculum includes the intensive study of works of major writers, major periods of literary history, and the development of literary types; it also provides experience in several critical approaches to literature and dramatic art and explores certain theoretical considerations implicit in literary study, such as the problematics of canon formation and the

impact of gender on the creation and reception of literary works. In addition, the Theatre Program offers both practical and theoretical courses in performance studies.

ENGLISH LITERATURE REQUIREMENTS AND RECOMMENDATIONS

Any introductory course—English 5A through 5Y—is the prerequisite for all other courses in literature. (Exempted from this prerequisite are seniors, juniors, and students who wish to take

English Literature

only studio courses.) Introductory courses attempt in a variety of ways to reflect the diversity of interests—with respect to subject matter, theoretical approach, literary genre, historical period, race and gender—characteristic of the departmental offerings as a whole. Introductory courses are characterized by syllabi with less reading than in advanced courses, by frequent short papers with some emphasis upon rewriting, by self-conscious examination of methodology, and by considerable attention to class discussion; they are viewed by the Department as particularly appropriate for freshmen; they are Primary Distribution Courses. Enrollment will be limited to 25 students per course; priority is given to freshmen and sophomores. Students will not normally take a second introductory course. Only one such course may be counted towards the major. The minimum requirement for admission as a major or as a minor in English is two semester-courses in the Department—normally an introductory course and an advanced literature course. (Students with AP scores of 4-5 in English Literature and/or English Composition receive credit toward graduation. Only the credit for English Literature may count toward the major requirements. AP credit does not satisfy the prerequisite for upper-level courses. Scores of 6 or 7 on the International Baccalaureate are treated in the same way.)

Students considering a major in English are strongly urged to take one or two additional English courses during the sophomore year. Majors and prospective majors should consult a member of the English Department for information about courses in other departments complementary to their work in English; work in foreign languages is especially recommended.

Students who plan to do graduate work, to follow a course of professional training, or to seek teacher certification in English, should see a member of the Department for early help in planning their programs, as should students who plan to include work in English literature in a special or cross-disciplinary major or in a program with a concentration. Students planning to qualify for teacher certification in English are reminded that work in American literature, in linguistics or the history of the English language, and in theatre or film is required in addition to other requirements of

the major. Non-majors who wish to be certified in English must meet all the course requirements noted above (e.g., requirements for the major except for the Senior Essay, plus the additional courses required for certification) as well as maintaining a grade point average of 2.5 or better in courses taken in the English Department.

Students wishing to study abroad should consult with the Departmental Chair far enough in advance of such study to effect proper planning of a major or minor. In determining which courses of study abroad will meet Department criteria for requirements or to receive credit toward a major or minor, the Department will rely both on its experience in evaluating the work of students returning from these programs and on careful examination of course descriptions, syllabi and schedules. Students may undertake preparations for papers in the Honors Program while studying abroad, but should consult carefully in advance with the appropriate Department faculty. For further details concerning Department policies for study abroad, consult the Department statement filed with the Office of Foreign Studies.

Major in the Course Program: The work of a major in Course consists of a minimum of eight units of credit in the Department including at least three units in literature written before 1830 (such courses are marked with a *), three in literature written after 1830, and one unit featuring critical theory (such courses are marked with a **). Courses marked with a *** may be counted as pre-1830 or post-1830 but not both. Courses marked with a */** may be counted as pre-1830 or critical theory, but not both. Introductory courses may not be counted as part of the pre- or post-1830 requirement. Students must also write a senior essay. Details about the essay are available in the Department Office.

Major in the Honors Program: Majors in English who seek a degree with Honors will in the spring of their sophomore year propose for external examination a program consisting of four fields, three in English and one in a minor. The three preparations in the major (constituting six units of credit) will be constituted as follows: All three preparations will normally be done through seminars (if approved by the department, one preparation may be a thesis or creative writing project); the program must

include at least one Group I and one Group II seminar. Honors majors, as part of their overall work in the Department, must meet the general major requirement of three units of credit in literature written before 1830 and three units of credit in literature written after 1830, as well as a course or seminar that features critical theory. The departmental requirements for Honors, including instructions about Senior Honors Study, are spelled out in detail in a departmental handout.

Students who wish to write a thesis or pursue a creative writing project under faculty supervision as part of their Honors program must submit proposals to the department; the number of these ventures the department can sponsor each year is limited. Students who propose creative writing projects will normally be expected to have completed at least one writing workshop as part of, or as a prelude to, the project; the field presented for examination will thus normally consist of a one-credit workshop plus a one-credit Directed Creative Writing Project. For further information, including deadlines for Directed Creative Writing proposals, see rubric under 70K.

Minor in the Honors Program: Minors must do a single, two-credit preparation in the department by means of a seminar (or under special circumstances, a creative writing project). Minors are required to do a total of at least five units of work in English (including their Honors preparation).

Students interested in pursuing Honors within a faculty approved interdisciplinary major, program, or concentration that draws on advanced English courses or seminars should see the Chair for early help in planning their programs.

Creative Writing Emphasis: Students who want to major in English with an emphasis in creative writing—whether regular or honors majors—must complete three units of creative writing in addition to the usual departmental requirements of pre- and post-1830 units and the critical theory requirement. The creative writing credits will normally consist of two workshops and English 70K, the Directed Creative Writing project. Students may count towards the program no more than one workshop offered by departments other than English Literature. Admission into the program will depend upon the quality of the stu-

dent's written work and upon the availability of faculty to supervise the work. Students who are interested in the program are urged to talk both with the department chair and with one of the department faculty who regularly teach the workshops.

The English Department Curriculum

The English Department courses are grouped together by historical period, genre, or course level as follows:

- 1.A, B, C: Special courses which do not count toward the major
- 5.A, B, C etc.: Introductory: all PDC's
- 10-99: Advanced courses
- 10,11: Survey courses in British Literature
- 14-19: Medieval
- 20-29: Renaissance and 17th Century
- 30-39: Restoration, 18th Century, Romantic
- 40-49: Victorian to Modern
- 50-69: American (including African American and Asian American)
- 70.A, B, C etc.: Creative Writing
- 71.A, B, C etc.: Genre Studies
- 72-79: Comparative Literature/Literature in Translation
- 80-95: Critical Theory, Film and Media Studies
- 96-99: Independent Study and Culminating Exercises
- Over 100: Honors Seminars, Theses, etc.

1: SPECIAL COURSES

These courses are special writing intensive courses which count toward graduation credit but not toward the English major. They may not be substituted for the English introductory course requirement and they are not PDC's.

English Literature

1A. Thinking and Writing Analytically (Workshop).

What writing strategies can generate powerful ideas, solid support, coherent organization, and clear syntax? English 1A, Thinking and Writing Analytically, helps students acquire a conceptual grasp of the writing process applicable across the curriculum. Short assignments in response to a range of readings, and frequent conferences with the instructor allow students to improve specific elements of their own styles. Does not meet distribution requirements or count toward the major.

Each semester. Passow.

1B. English for Foreign Students.

Individual and group work on an advanced level for students with non-English backgrounds. Does not meet distribution requirements or count toward the major.

Each semester. Evans.

1C. The Writing Process.

This course combines study of theories of composition and the teaching of writing with supervised experience applying the skills derived from that study in paper comments and conferences. Enrollment limited to students selected as Writing Associates. Does not meet distribution requirements or count toward the major.

Cross-listed as Education 1C.

Fall 1998 and 1999. Blackburn.

5: INTRODUCTORY COURSES

These courses are all introductory courses and PDC's. Freshmen and Sophomores must take one of these courses before taking an advanced course. Normally a student is allowed to take only one introductory course.

5A. Technology and the Text.

In this course we will explore the changing nature of literary texts and our conceptions of them from what we might call the "zero technology" of the oral tradition, through the age of manuscript transmission, into the age of print and the development of printing technologies and the publishing industry, and beyond into our own new world of electronic texts and hypertexts. Our reading will range

from Beowulf to Shakespeare, to Dickens and out into the contemporary world of fictions and hyperfictions.

Primary distribution course.

Spring 1999 and 2000. Blackburn.

5B. Science and the Literary Imagination.

An introduction to the critical reading of literature, using texts (in prose and verse from the 16th century to the present) which are concerned with or reflect the impact of science and scientific thinking on individual and society.

Primary distribution course.

Blackburn.

5C. Cultural Practices and Social Texts.

What constitutes 'culture'? Who is entitled to it? What are the effects of not having it? This course will look at how different conceptualizations of culture—in theory and in practice—have at stake questions of identity (individual and collective), political practice and agency, structures of power, and possibilities for social transformation. Authors will include Shakespeare, Arnold, Kipling, Raymond Williams, Brecht, and Zora Neale Hurston.

Primary distribution course.

Fall 1998 and 1999, Spring 1999. Lesjak.

5E. The Subject in Question.

How do we become who we are? What social discourses and practices enable the shaping of identity? How does reading affect this process? This course will explore the ways in which subjectivity and ideology interpenetrate within a range of texts and our commentary upon them. Writers will include Shakespeare, Flaubert, Kafka, Faulkner, Rich, Kingston, and Morrison. Theoretical essays may also be assigned.

Primary distribution course.

Fall 1999. Weinstein.

5G. Rites of Passage.

The course will focus on various rites of passage, symbolic actions which chart crucial changes in the human psyche, as they are consciously depicted or unconsciously reflected in different literary modes and will examine the shared literary experience itself as ritual process. Authors will include Shakespeare, Blake, Conrad, Lawrence, and Walker.

Primary distribution course.
Williamson.

5H. Portraits of the Artist.

We will study a wide variety of works portraying artists in different cultures and contexts and media. Writers will tentatively include Dante's *Inferno*, William Blake, Salman Rushdie, Charles Johnson, Judith Ortiz Cofer, and Octavia Butler. The syllabus also contains movies: *Basquiat* and *The Piano and Dead Man*, plus work by the filmmakers Rea Tajiri and Gregory Nava and a documentary on Maya Lin.

Primary distribution course.
Fall 1998 and Spring 2000. Schmidt.

5J. The Ironic Spirit.

This course is interested in the risky business of irony as discursive practice or strategy—why and how ironies are used and understood and the consequences of attributing interpretations. 'Ironists' include Shakespeare (*Othello*) Toni Morrison (*Sula*), Emily Dickinson (poetry), Mark Twain (*Pudd'nhead Wilson*), Ralph Ellison (*Invisible Man*), Stephen Crane (stories) and Audre Lorde (poetry). Required viewing: *Apocalypse Now*.

Primary distribution course.
Fall 1998 and 1999. James.

5K. Literature and the Grotesque.

Exploring ways the grotesque may be used to redefine the human or dramatize the limits of human understanding, this course tracks the comic, uncanny and generative elements of the grotesque through works by García-Márquez, Shakespeare, Baudelaire, Browning, Kafka, Wright and O'Connor.

Primary distribution course.
Bolton.

5M. Ways of Seeing.

A study of the cultural codes by which we "see" and locate ourselves in the world—from love at first sight to cyborg vision; siting home to re-visioning gender/sexuality; from "classic" to "popular" texts. Works include *A Midsummer Night's Dream*, *Do Androids Dream of Electric Sheep*, *Bladerunner*, *Love Medicine*, *Kindred*, *The Simpsons*, *Seinfeld*; shorter works: Jen, Berger, Haraway, Russ; poetry by Soto and Olds.

Primary distribution course.
Fall 1998 and 1999. Blum.

5N. Illicit Desires in Literature.

We will examine some differences that race and gender have made in the literary expression of a range of sexual desires, noting for instance that works by canonical writers can depict and even celebrate forms of sexuality that are much more problematic for those who speak from positions of less privilege. Authors may include Aphra Behn, Samuel Richardson, Charlotte Brontë, Harriet Jacobs, Christina Rossetti, David Henry Hwang, Dorothy Allison, Essex Hemphill, and Adrienne Rich.

Primary distribution course.
Fall 1998. Johnson.

5Q. Subverting Verses.

Once history, biography, fiction, philosophy, even science could be written in verse without seeming peculiar or affected, but today the line between poetry and prose is sharply drawn. Or is it? This course will examine unconventional forms and uses of poetry—from Chaucer's *Tales* to Cocteau's *Orpheus*, from Barrett Browning's *Aurora Leigh* to Dove's *Darker Face of the Earth*, from Darwin's *Loves of the Plants* to Seth's *Golden Gate*—to explore our assumptions about the nature of genre.

Primary distribution course.
Fall 1999. Anderson.

5R. Fictions of Identity.

What are the assumptions behind and limits to the modern Western understanding of the individual? How can we reconcile psychoanalytic and postmodern conceptions of the fragmented subject with the urgency of identity politics for people of color, women, lesbians and gay men? We will examine how identity and difference are constructed, communicated, and contested through language and literature and through structures of seeing and being seen in film and video. Texts by Shakespeare, Mary Shelly, Freud, Woolf, Baldwin, Hitchcock and others.

Primary distribution course.
Fall 1998 and 1999. White.

5T. The Mask of Love.

This course will examine the relationship between love and performance. How does the

search for a loved one involve the creation of a mask or persona? What is the mask's relation to the self? Can this character be repeatedly performed and sustained? How is the mask a response to the desired Other? Selected authors: Shakespeare, Hwang, Pinter, Wharton, Walker. Films by Nunn and Wenders. Versions of *Cinderella* and *Beauty and the Beast*.

Primary distribution course.

Fall 1998 and 1999, Spring 1999 and 2000. Evan.

5V. Literature and Poverty.

How do literary genres influence our perceptions of poverty? This course explores the pastoral, romanticism, realism, and magic realism while we talk about how representations of poverty are related to the historical phenomenon.

Primary distribution course.

Fall 1999. Johnson.

5X. The Colonizer and the Colonized.

The arrival of Europeans in the Americas, Africa, and Asia created crises of language, cultural identity, and historical continuity for Europeans as well as for the indigenous peoples they conquered. This course explores the effects of the colonial encounter on European models of representation (literary and historical), subjectivity and sexuality. Readings include Shakespeare, *The Tempest*; Conrad, *Heart of Darkness*; Forster, *Passage to India*; Achebe, *Things Fall Apart*; Walcott, *Dream on Monkey Mountain*; Rushdie, *Shame*; Dangarambga, *Nervous Conditions*; Philip, *She Tries Her Tongue, Her Silence Softly Breaks*.

Primary distribution course.

Spring 1999. Lindeborg.

5Y. Reading and Writing the Body.

In this class we will analyze various 20th-century writings (fiction, poetry, and essays) on reading, eating, illness, sex, and clothing (among other things), and we will ask how these texts define the body as subject to and/or the subjects of language and history. What does it mean to think of the body as both a physical and a textual entity? Shakespeare's *Measure for Measure* will serve as a backdrop for some of these questions. Writers studies include: Eileen Myles, Jamaica Kincaid, Nella Larsen,

Gertrude Stein, Franz Kafka, and Virginia Woolf.

Primary distribution course.

Fall 1998. Cohen.

10-99: ADVANCED COURSES

These courses are open to freshmen and sophomores who have successfully completed an introductory course and to juniors and seniors without the introductory prerequisite.

10-11. SURVEY COURSES IN BRITISH LITERATURE

10. Survey I: Beowulf to Milton.*

A historical and critical survey of poetry, prose, and drama from *Beowulf* to Milton. This will include British literature from the following periods: Anglo-Saxon, Middle English, Renaissance, and 17th Century.

Fall 1998 and 1999. Williamson.

11. Survey II: Neo-Classical to Post-Colonial.

An historical and critical survey of poetry, prose and drama from Pope to Rushdie, focussing on progress, modernity and the subject as central concepts which British literature of this period confronts whether in form or content.

Spring 2000. Lesjak.

14-19: MEDIEVAL

14. Old English/History of the Language*

A study of the origins and development of English—sound, syntax, and meaning—with an initial emphasis on learning Old English. Topics may include writing and speech, a history of morphology, the changing phonology from Old to Middle English, Shakespeare's puns and wordplay, a history of sounds and spellings, modern coinages and creoles. We range from *Beowulf* to Cummings, from Chaucer to Chomsky. This course may be taken without the usual prerequisite course in

English; however, it may not serve in the place of a prerequisite for other advanced courses. Crosslisted as Linguistics 14.

Williamson.

16. Chaucer.*

Readings in Middle English of most of Chaucer's poetry with emphasis on *The Canterbury Tales* and *Troilus and Criseyde*. We place the poems in a variety of critical and cultural contexts—both medieval and modern—which help to illuminate Chaucer's art. In the manner of Chaucer's Oxford Clerk, we hope to gladly lerne and gladly teche.

Williamson.

17. Chaucer and Shakespeare.*

A study of selected pairs of works which reveal common sources, themes, or critical concerns. How do the authors unlace the ideal in *A Midsummer Night's Dream* and *The Miller's Tale*? How do they portray and problematize gender in *The Taming of the Shrew* and *The Wife of Bath's Tale*? How do they catch self-consciousness in *Hamlet* and *The Merchant's Tale*? Whose Cressida is more crafty or capable?

Williamson.

20-29: RENAISSANCE & 17TH CENTURY

20. Shakespeare.*

We'll cover many topics in this survey of Shakespeare's plays, including kingship, comedy and tragedy, father-daughter relationships, sexuality, race, performance, the roles of women, language, and the rewriting of history. We will frequently return to the question of theater's place in sixteenth and seventeenth century England as represented on stage and in other writings of the period. We will also examine Shakespeare's place in the cultures we inhabit.

Fall 1998 and 1999. Johnson.

21. Shakespeare and Critical Theory: "Our Shakespeares".*/**

Who or what is "Shakespeare" as the plays are approached today? An intensive study of *Macbeth*, *Twelfth Night*, *Henry V*, *Hamlet*, and one play performed in the Philadelphia area in the context of current critical approaches including deconstruction, performance studies,

gender, feminist and queer studies, New Historicism and cultural materialism, treatments of nationalism, race and class.

Blum.

22. Literature of the English Renaissance.*

This course will begin with More's *Utopia* and end with selections from *Paradise Lost*, paying particular attention to literature's political contexts, gender, genre, and the relation of women's writing to the male canon. Among the other writers included will be Wyatt, Surrey, Philip Sidney, Mary Herbert, Mary Wroth, Spenser, Elizabeth Cary, Jonson, Bacon, Donne, Herrick, George Herbert, and Marvell.

Spring 2000. Johnson.

23. Renaissance Sexualities. */**

The study of sexuality allows us to pose some of the richest historical questions we can ask about subjectivity, the natural, the public and the private. This course will explore such questions in relation to Renaissance sexuality, examining several sexual categories—the homoerotic, chastity and friendship, marriage, adultery, incest—in a range of literary and secondary texts.

Spring 1999. Johnson.

24. Inscriptions of the Feminine in 16th and 17th Century England. */**

Writings about and by English women when very few women published or had rooms of their own. Works from sonnets to closet dramas, spiritual narratives to fiction by (among others) Queen Elizabeth, Elizabeth Cary, Aphra Behn, Aemilia Lanier, Shakespeare, John Milton, Thomas Middleton, and Virginia Woolf. Close reading of texts; class, gender, nationalism, and sexuality in historical and cultural contexts.

Blum.

26. English Drama Before 1642.*

English drama began as a communal religious event, but the theaters were shut down in 1642 because of their reputation for impiety and social disorder. This course will trace the drama from its medieval forms up through its commercial success in the Renaissance and its ultimate dissolution in the Civil War.

Johnson.

27. Tudor-Stuart Drama.*

A survey of plays and masques written by Christopher Marlowe, Ben Jonson, Thomas Middleton, Thomas Dekker, John Webster, Elizabeth Cary, John Ford, and others. The course will consider historical, socio-political and literary contexts; just as important, we will look at how the plays have been and continue to be performed.

Fall 1999. Blum.

28. Milton.*

Study of Milton's poetry with particular emphasis on *Paradise Lost*.

Spring 2000. Blackburn.

30-39: RESTORATION, 18TH CENTURY, ROMANTIC

30. Restoration Drama.*

The restoration of the monarchy reopened London theatres and brought actresses to the English stage for the first time. We'll explore the new forms produced in this historical context—heroic drama, comedy of manners, farce, the drama of sentiment—along with the audiences, theatres, players and critics that helped shape those forms.

Bolton and Johnson.

31. Topics in the "New" Eighteenth Century.*/**

The eighteenth century has been seen as the age of reason and the age of exaggerated emotion; an era of imperialism *and* expanding political participation; a time of progress *and* melancholy, technical advances *and* spiritual necrophilia. We'll examine the eighteenth century's schizophrenic 'spirit of the age' and its implications for our own time. Specific topics: *The Haunting of the Public Sphere* (1999); *Transatlantic Conversations* (2001).

Bolton.

33. The Romantic Sublime.*

"The essential claim of the sublime is that man [sic] can, in speech and feeling, transcend the human" (Weiskel). What does this transcendence look like? How is it achieved? What resources does it offer us, and at what cost? Authors: Burke, Blake, the Wordsworths, Coleridge, Byron, the Shelleys, Keats.

Bolton.

34. Restaging Romanticism.*

During the Romantic period, the number of women writing in all genres increased dramatically: many of these women writers were connected with the stage as actresses, dramatists or critical spectators. This course explores some of the connections between theatre and politics, between genre and gender in the work of both male and female writers of the period.

Bolton.

35. Rise of the Novel.*/**

This course will look at classic 18th-century novels considered to constitute the origins of the novel in relation to less canonical texts—mainly by women—in order to examine the debate over the cultural legitimacy of the novel and questions regarding high/low art (and concomitant distinctions of gender) raised by it. Novelists include: Behn, Burney, Defoe, Richardson, Fielding, Haywood, Austen.

Spring 2000. Lesjak.

36. The Age of Austen.*

First we'll read Austen's novels and other relevant texts in order to sketch the general contours of "The Age of Austen." Then we'll turn to recent film and television remakes of Austen novels to explore what's gained and lost in the translation to film—and the reasons behind Austen's resurgent appeal to late 20th century audiences.

Bolton.

40-49: VICTORIAN TO MODERN

40. Victorian Studies.

An interdisciplinary study of British cultural formation during the Victorian period. This semester will focus on how and why certain cultural boundaries were drawn between civilized and savage, man and machine, normal and deviant, paying particular attention to some of the more unsuspecting forms (gothic horror, 'sensational' mysteries, the detective story, children's literature)—in and through which ideas of gender, sexuality, domination and violence are approached.

Spring 1999. Lesjak.

41. The Victorian Poets: Eminence and Decadence.

A study of the poetry of Tennyson, Robert and Elizabeth Barrett Browning, Arnold, Meredith, the Rossetts, Wilde, and others, with particular attention to each artist's response to the stresses of the era.

Anderson.

44. Modern Bodies in the Making: The 19th-Century Novel.

Covering a wide range of Victorian novels, this course will examine how these narratives understand and represent class and gender formation; national and racial definition; productive and reproductive labors and sexualities; and issues of representation as they are redefined through these narratives. Authors will include Austen, the Brontës, Dickens, Eliot, Hardy, Wilkie Collins, William Morris and Wilde.

Lesjak.

45. Modern British Poetry.

A consideration of British poets—and some American expatriates—from Thomas Hardy to Dylan Thomas, with particular attention given to each poet's individual response to the circumstances of modern life.

Anderson.

46. Stein and Woolf.

This course is an intensive consideration of two icons of modernism, as well as of some of the critical writing on their work. Texts include: Stein's *Three Lives*, *Lectures in America*, *Geography and Plays*, and "The Mother of Us All," and Woolf's *Mrs. Dalloway*, *Orlando*, *To the Lighthouse*, and various essays.

Spring 1999. Cohen.

48. Contemporary Women's Poetry.

A consideration of the great variety of poetic styles and stances employed by women writing in English today: Adrienne Rich, Audre Lorde, Rachel Blau DuPlessis, Ai, Janice Mirikitani, Olga Broumas, Medbh McGuckian, Joy Harjo, Cherrie Moraga, Cathy Song, Jo Shapcott, and Cyn Zarco, for example.

Spring 2000. Anderson.

49. Contemporary Irish Poetry.

Ireland's complicated historical divisions have provided fertile ground for extraordinary poet-

ry, both in the Republic and in the North. This course will consider poetry by Heaney, Boland, Carson, McGuckian, Muldoon, and ni Dhomnaill (among others) within the socio-political contexts of contemporary Ireland.

Anderson.

50-69: AMERICAN (INCLUDING AFRICAN AMERICAN AND ASIAN AMERICAN)

51. Fictions in American Realism.

By combining the standards with nontraditional texts and with attention to contemporary issues of race, class, and gender, this course examines unifying themes and contradictions between 1880 and 1920 and considers the ways art and social conscience intersect in America. Writers may include Howells, Chopin, Wharton, Dreiser, Crane, Twain, and DuBois.

Spring 2000. James.

52A. Studies in American Prose.

A study of nineteenth- and twentieth-century American narratives exploring the consequences of forbidden border crossings—cultural, racial, sexual. Nineteenth-century texts: a feminist look at the Puritans and Indians (*Hobomok*); Douglass' *The Heroic Slave*; Hawthorne's *Scarlet Letter*; and James' *Portrait of a Lady*. More modern works: Cather's *The Professor's House*; Hemingway's *The Garden of Eden*; Charles Johnson's tribute to Douglass and Melville (*Middle Passage*); and Bharati Mukherjee's *Holder of the World*.

Spring 1999. Schmidt.

52B. American Fiction: Melville and Pynchon.

A study of two writers with many shared ambitions, interests, and compulsions, with emphasis on their work in shorter forms as well as the epic-length novel. Melville readings will include "Bartleby the Scrivener" and "Benito Cereno" and the short novel *Israel Potter* as well as *Moby-Dick*. Pynchon readings will be "Entropy," "The Secret Integration," *The Crying of Lot 49*, and *Mason & Dixon*.

Fall 1998. Schmidt.

52C. American Women's Fiction.

A look at romance and realism and race in women's fiction over two centuries. Tentative

syllabus: Lydia Maria Child's *A Romance of the Republic* (1867); the "local color" short stories of Mary Wilkins Freeman; María Amparo Ruiz de Burton, *Who Would Have Thought It?* (1872); Edith Wharton, *The Age of Innocence* (1920); Zora Neale Hurston, *Their Eyes Were Watching God* (1937); Eudora Welty's short stories; Toni Morrison, *Paradise* (1997); and work by Dorothy Allison, perhaps her latest novel, *Cavedweller* (1998).

Schmidt.

53. American Poetry.

A study of the poetry and prose of selected U.S. writers, including Whitman, Dickinson, Williams, Stevens, Hughes, and H.D.

Spring 2000. Schmidt.

54. Faulkner, Morrison, and the Representation of Race.

This course has two aims: to explore in some depth the fiction of two major American novelists, and to work towards aesthetic criteria attentive to both racial dynamics and formal achievement.

Fall 1999. Weinstein.

57. The African American Writer.

This century-long overview considers the way African American writing frames its double-faced culture, foregrounds its history and heritage, and reflects the community's way of knowing itself. Writers range from Chesnut to Morrison and may include Johnson, DuBois, Toomer, Wright, Hughes, Brooks and Walker.

Fall 1998. James.

58. Intimacy and Distance: William Faulkner, Zora Neale Hurston, Eudora Welty, and Richard Wright.

From a distance, the South is characterized by segregation, racial acrimony, and class warfare. But when we examine it closely, the South reveals itself to be a site of complexity and ambivalence. Looking at the fictions written between 1900 and 1950 of William Faulkner, Zora Neale Hurston, Eudora Welty, and Richard Wright we will explore the South from four divergent points of view. The course opposes Wright's depiction of racial animosity against Hurston's refusal to depict Black victimization; Faulkner's gothicism is opposed to Welty's resistance to plantation nostalgia. Do their fictions produce a new way to understand

the South? Are these writers trying to maintain relations across racial, gendered, and class lines or are they trying to disrupt them? Readings will include *Black Boy*, *Mules and Men*, *A Curtain of Green*, and *Absalom, Absalom*. There will also be screenings of D.W. Griffith's *The Birth of a Nation* and *Gone With the Wind*.

Spring 1999. Beavers.

59. The Harlem Renaissance.

Through the lens of the Harlem Renaissance era, this course considers African American modernism and cultural nationality in the decade following World War I. We will focus largely on writings, but lectures on art and music are included and views concerning the meaning of Harlem as locale are pertinent. A day trip to Harlem will be arranged.

James.

60. The Contemporary African American Writer.

This course will review reviews, examine the critical literature, and read the journals about prevalent African American writing. 'Primary' texts will be selected to represent what is current.

Fall 1999. James.

62. Native American Autobiography.

This course is designed to acquaint students with the varieties of self-life-narration in native North America. We will examine issues such as the construction of Native American images, 'Indianness', literary nationalism, violence, contemporary storytelling, and notions of the 'self'. We will be reading critical and cultural theory alongside primary texts in order to understand the ways in which Native American personal narratives are read and discussed in the academy and in tribal communities.

Spring 1999. Hermann.

63. Asian American Literature.

This course is designed to introduce you to the common texts and critical issues in the study of Asian American literature in the context of the various and changing circumstances of Asian immigration to the United States. We will think about such issues as "authentic" identity, assimilation, remembering or imagining a homeland, and how these issues may be influenced by differences in generation, gender and sexuality.

Fall 1998. Saragosa.

64. The Asian American Miscegenation.

The historical circumstances of Asian immigration to America, and American and European involvement in Asia, will be occasions to think about how the representation of interracial romance is deployed to mediate broader cultural fears. We will examine the sexual stereotypes of Asian men and women; we will think about how the people concerned maneuver within a very loaded cultural minefield; and we will look at political racial mixing, thinking about the possibilities for cross-racial coalition building.

Fall 1999. Saragosa.

66. Oriental Visions and Asian Eyes: Asians on Stage and Screen.**

The history of representations of Asians will provide the basis for our interrogation of race in the popular American imagination. We will, however, spend more time on the recent history of Asian American theater, film and performance. Topics will include racial performance and performance theory; representational strategies of containment and resistance; questions of production, distribution and reception; and the viability of theater and film as locations from which to imagine an alternative political reality.

Saragosa.

67. (Asian) Ethnicity and (Hetero)Sexual Normativity.**

In this class, we will examine a variety of literary texts and performance pieces to think about how ideas of sexual normativity are deployed to police not only gender identity, but a whole range of political identifications. While we will be looking at these issues in the specific context of Asian American ethnicity, the theoretical issues we raise will have implications in our broader understanding of race and ethnicity.

Spring 1999. Saragosa.

70: CREATIVE WRITING WORKSHOPS

Regular creative writing workshops are limited to 12 and require the submission of writing samples in order for students to apply for them. Workshops marked with a # combine a balance of substantial

literary analysis of models along with creative writing exercises geared to the models; these workshops are limited to 20, do not require the submission of manuscripts, and have as their prerequisite (for freshmen and sophomores but not for juniors or seniors) an English introductory course. Students may normally take only one workshop at a time.

70A. Poetry Workshop.

A class, limited to twelve, in which students write, read, translate, and talk about poetry. We will emphasize the discovery and development of each individual's distinctive poetic voice, imagistic motifs, and thematic concerns, within the context of contemporary poetics. Students should submit 3-5 pages of poetry for admission, at a time announced during fall semester. The workshop will meet once a week for four hours. Admission and credit are granted at the discretion of the instructor.

(Studio course.)

Spring semester each year.

Spring 1999 and 2000. Anderson.

70B. Fiction Writers' Workshop.

We'll approach the challenge of constructing compelling narratives through a series of formal exercises and experiments. Students will read and comment on each others' writing as they work to hone their own style and clarify their central thematic concerns. Twelve students are admitted to the class on the basis of a writing sample submitted during fall semester.

Spring semester each year.

Spring 1999. Cohen.

70C. Advanced Poetry Workshop.

Intensive volumes of poetry often represent their authors' conscious statements, made through selection, organization, and graphic presentation. This course is intended as an advanced workshop for students who have taken the Poetry Workshop or have completed a substantial body of work on their own. Limited to twelve. Admission and credit are granted at the discretion of the instructor. (Studio course)

Fall 1998. Schmidt.

70D. Grendel's Workshop (New Texts From Old).#

John Gardner rewrote the ancient epic *Beowulf* in modern idiom from the monster's point of view. Caryl Churchill brought the Greek

English Literature

Bacchae into contemporary London. Angela Carter's *Beauty liked the Beast better than the Prince*. Students will study old texts and their modern revisions and then, using these models as starting points, reshape their own beautiful or beastly visions.

Fall 1998. Williamson.

70E. Lyric Encounters.#

Matthew Arnold called it "a criticism of life"; Dylan Thomas, "a naked vision." Emily Dickinson defined it as a blow: "If I feel physically as if the top of my head were taken off, I know that it is poetry." Students will examine varieties of the lyric, and then shape their own criticisms, visions, cerebral explosions in response.

Fall 1999. Anderson.

70K. Directed Creative Writing Projects.

Students—whether regular or honors majors—who plan a directed writing project in fiction or poetry must consult with the Department Chair and with a member of the Department's writing faculty who might supervise the project, and must submit a prospectus to the Department by way of application for such work before the beginning of the semester during which the project is actually done. The number of these ventures the Department can sponsor each year is limited. Deadlines for the receipt of written applications are the second Monday in November and the first Monday in April. Normally limited to juniors and seniors who have taken an earlier workshop in the department.

For creative writing projects in the Honors Program, the approximate range of pages to be sent forward to the examiners will be 20 to 30 pages of poetry, or 30 to 50 pages of fiction. There will be no written exam for the creative writing project; the student's portfolio will be sent directly to the examiner, who will then give the student an oral exam during Honors week. For purposes of the transcript, the creative writing project will be assigned a grade corresponding to the degree of Honors awarded it by the external examiner. Students are advised that such independent writing projects must normally be substantially completed by the end of the fall semester of the senior year as the spring semester is usually the time when the Senior Honors Study essay must be written. Staff.

71: GENRE STUDIES

See also 81. *Theory of the Novel*.

71A. Tragedy.***

A study of tragedies from the Greeks to the postcolonial world. We'll examine the history of the genre, theories of the tragic, and the ongoing effort to rewrite tragedy in changing historical circumstances. Note: by arrangement with the professor, this course may be counted as either pre-1830 or post-1830, but not both.

Johnson.

71B. The Lyric in English.***

A history of the lyric poem in English from its origins in Old and Middle English to contemporary poetry, with emphasis on comparing particular lyric genres like the elegy, the love poem, the pastoral lyric. Note: by arrangement with the professor, this course may be counted as either pre-1830 or post-1830, but not both.

Spring 1999. Schmidt.

71C. The Short Story.

As we read widely in the nineteenth- and twentieth-century short story, we'll focus on technical developments as well as certain recurring preoccupations of the genre: fragmentation and reconstruction; the staging of an encounter between the ordinary and the extraordinary; the refutation of time and mortality.

Bolton.

71E. Autobiographical Acts.

What compels the act of writing the self? What do the acts have in common across race, culture or gender? This course examines impulses to testify and considers a range of ethnic and cultural instances in its questioning, but examples will vary from time to time.

James.

71F. Gothic Possibilities.

"High Gothic" flourished in England in the 1790's; "Southern Gothic" adapted the conventions of the form to the demands of modernist fiction and the culture of the American South. Among the Gothic possibilities we will consider: sensationalism (Lewis), domestication (Radcliffe), parody (Austen), autobiogra-

phy (Porter), fragmentation (Faulkner), and cultural critique (Toomer).

Bolton.

71G. Satire: Spirit and Art.

This course speculates about the nature and aims of satire and its problematical standing. How valid are claims to moral purpose? To power or influence? We will question whether satires ranging from toasts in verse to narratives in fiction and film are 'open' or 'closed' forms. Authors will include Atwood, Huxley, Charles Johnson, Pope, Ishmael Reed, Swift, John Kennedy Toole, and Nathanael West.

James.

71H. Science Fiction.

An exploration of origins, genres, themes, and contexts in a dozen or so works of science-based speculative fiction from several ages. We will be concerned not only with the workings of the literary imagination in these novels (and a few plays), but also with shifting ideas about what science is, of the relation of science to human affairs (religious, political, economic and even psycho-sexual), and of the perceptible shape of the universe itself. Authors may include Bacon, Swift, Mary Shelley, Verne, Wells, Stapledon, Asimov, Clarke, Brunner, Gibson, LeGuin, Piercy, etc.

Blackburn.

71J. Cherchez la femme: The "Mystery" of Women in the Mystery Genre.

From Eden on, our cultural narratives of deception and discovery have often centered on Woman, vulnerable, culpable, and duplicitous. The concept of woman as potential victim and perpetrator powered many detective novels popular in the 19th and 20th centuries and has paradoxically enabled startling re-visions of the genre by contemporary women writers. Our investigation of this "mystery" will involve male authorities—Conan Doyle, Chandler, Hammett—and female private "I"s—Sara Paretsky, Sue Grafton, Barbara Wilson.

Anderson.

71K. Lesbian Novels Since World War Two.

This course will examine a wide range of novels by and about lesbians since World War Two. Of particular concern will be the representation of recent lesbian history; how, for

instance, do current developments in cultural studies influence our understanding of the lesbian cultures of the fifties, sixties, and seventies? What is at stake in the description of the recent lesbian past?

Johnson.

71M. James Merrill & the Epic Poem.

An introduction to what may be the most important epic poem published in our lifetime, James Merrill's *The Changing Light at Sandover* (1984). It is a moving mixture of tragedy and comedy featuring conversations with the dead via an Ouija board and the heroic exploits of God Biology recycling souls and cloning genius. We will begin the course with a brief look at Dante's *Inferno*, one earlier epic poem important to *Sandover*.

Enrollment limited to 15.

Schmidt.

71N. Narratives of Spiritual Quest. ***

A study of how writers from the 16th century to the present explore spirituality and unlock the conscience within through particular forms—from allegory to lyric, fiction to autobiography. Works by Spenser, Milton, Herbert, Dickinson, Merton, Kerouac, Tolstoy, Goldberg, Morrison, Butler, Hillesum, Hooks and others. Popular film and TV may include *The Rapture*, *Ghost*, *Breaking the Waves*, *Touched by an Angel*, and the *X-Files*. Note: by arrangement with the professor, this course may be counted as either pre-1830 or post-1830, but not both.

Blum.

72-79: COMPARATIVE LITERATURE/ LITERATURE IN TRANSLATION

72. Proust, Joyce and Faulkner.

Selections from Proust's *Remembrance of Things Past*, Joyce's *Dubliners* and *Ulysses* entire, and Faulkner's *The Sound and the Fury* and *Absalom, Absalom!* Emphasis on the ideological and formal tenets of modernism.

Spring 2000. Weinstein.

73. Modernism: Theory & Practice. **

Drawing on a range of theorists and practitioners, this course will explore some salient ener-

gies and problems of modernism. Theorists will include Nietzsche, Freud, Weber, Simmel, Adorno, Benjamin, Bakhtin, and de Certeau, among others. Practitioners will be chosen from among the following writers: Joyce, Kafka, Proust, Rilke, Mann, Woolf, and Faulkner.

Weinstein.

73A. Mapping The Modern.

The course seeks to explore some of the salient issues, achievements, and problems that serve to map Western modernity. Beginning with "prophetic voices" from the mid-19th century, we then concentrate upon "urban fables" of early-20th century high modernism, concluding briefly with late-20th century "postmodern lenses." Texts will be chosen from among the following writers: Marx, Baudelaire, Nietzsche, and Dostoevsky; Rilke, Kafka, Freud, Joyce, and Woolf; Weber, Simmel, Adorno, Benjamin, and Lukacs; Bakhtin, Arendt, Canetti, and de Certeau; Calvino and Borges; Berman and Harvey. The central topics under study are the phenomena of the modern subject and the modern city, as expressed in literature, analyzed in sociology and critical theory, and represented in a range of cultural practices.

(crosslisted as Sociology 52)

Weinstein and Wagner-Pacifici.

74. Modern Epic: Tolstoy, Joyce, and García-Márquez.

This course will examine three "encyclopedic" texts (*War and Peace*, *Ulysses*, *One Hundred Years of Solitude*) that rehearse and transform inherited paradigms of cultural identity, purpose, and destiny. Through sustained attention to formal and ideological tenets of these specific texts, we will also seek to interrogate some of the salient procedures of realism, modernism, and postmodernism.

Weinstein.

75. Studies in Comparative Fiction.

This course will explore the relationships between desire and law, as well as the social construction of identity, in a range of 19th- and 20th-century novels. Writers will include Flaubert, Dostoevsky, Tolstoy, Kafka, Faulkner, and Morrison.

Weinstein.

76. Studies in Modern Drama.

The course will focus on selected modern playwrights who have been instrumental in reconceiving dramatic form and in shaping the modernist (or post-modernist) tradition. Major topics may include: text and subtext, realism and expressionism, theatre as self-reflexive form, acting and acting out, language and silence, and ideas of the spectacular. Major authors may include Ibsen, Pirandello, Brecht, Beckett, Pinter, Churchill, and Handke.

Williamson.

77. Literature of the Asian Diaspora.

The political and economic circumstances of immigration and exile have produced a rich body of literature in English by Asians in England, Canada, and the United States. As we read these texts, we will think about how they address common concerns of national and transnational identity, themes of exile and return, and visions of home and homeland. Authors we will read will include Salman Rushdie, Anjee Min, and Teresa Hak Kyung Cha.

Saragosa.

78. The Black African Writer.

This course challenges the reading of African culture as a monolith and—through the imagination of selected writers—considers it variously as a world of hope and delusion, imperialism and independence, tradition and loss. How does time effect the formation of attitudes? What continuities are beneath the surfaces of modernism? And how do female voices fare in a male-dominated tradition?

James.

79. Fictions from the Black Atlantic.

This course focuses on a 'black Atlantic culture' whose themes and techniques complicate and enrich our understanding of Western 'modernism.' Works range from Equiano and Delany to Morrison and Baldwin.

James.

80-95: CRITICAL THEORY, FILM AND MEDIA STUDIES

Courses in critical theory are also listed elsewhere and are noted by a double asterisk.

80. Critical and Cultural Theory.**

An introduction to texts and contexts in contemporary critical theory and cultural studies. We will read narrative, psychoanalytic, marxist, poststructuralist, feminist, queer and postcolonial theory, raising questions of subjectivity, difference, ideology, representation, methodology, and cultural politics.

White.

81. Theory of the Novel.**

A study of novels representative of the novel's development as a form in conjunction with different theories of the novel. We will consider the origins of the novel, the relationship between the history of the novel and the history of sexuality, and debates regarding the novel and the politics of realism, modernism and contemporary postmodernism. Authors include: Watt, Lukacs, Brecht, Armstrong, Jameson, Richardson, Eliot, Woolf.

Spring 1999. Lesjak.

82. Representations of Women's Identity.**

A study of the ways that psychology, literature, film and literary theory illuminate women's identity and self-expression. By examining psychological case studies, prose narratives by male and female authors, psychological and literary theory, we will identify ways women have been represented in our culture, the consequences of this representation, and possibilities for self-awareness and expanding creativity.

Pre-requisite: an introductory course in English.

Cross-listed as Psychology 52.

Blum and Maracek.

83. Feminist Theory.**

Close readings of a range of feminist theory, from early feminist texts which attempt to establish the fact of sex-based oppression to later works addressing psychoanalysis and the problem of "master discourse"; the issue of what is "woman"; and questions of how class, sex, gender, imperialism and race intersect.

Spring 2000. Lesjak.

84. Lesbian Representation.**

Using the framework of feminist theory, we will explore models of lesbian representation in literature and film and the construction of sub-

jectivity and desire in texts authored by lesbians. Works by Radclyffe Hall, Audre Lorde, Chantal Akerman, and others will be read and viewed in the context of psychoanalysis, modernist and postmodern aesthetics, feminist politics, gay history, and popular culture.

White.

85. "Whiteness" and Racial Difference.**

A look at the history of how "racial" identities and differences have been constructed in past and contemporary cultures, especially in the U.S. Includes writings on the subject by cultural critics of all races.

Schmidt.

86. Postcolonial Literature and Theory.**

A comparative study of postcolonial literature and theory within a global framework, emphasizing the political, historical, and cultural dimensions of these texts. Of central concern will be how the "empire writes back": its representations of political and literary histories, nationalism, race and gender. Readings by Said, Aijaz Ahmad, Amin, Rushdie, Emecheta, Ousmane, Dangarembga, Achebe, Nwapa, Mariamma Ba.

Fall 1998. Lesjak.

87. American Narrative Cinema.**

Introduction to film as narrative form, audiovisual medium, industrial product, and social practice, emphasizing the emergence and dominance of classical Hollywood as a national cinema, with some attention to independent narrative traditions such as "race movies." Genres such as the western, the melodrama, and film noir express aspirations and anxieties about race, gender, class and ethnicity in the U.S. Auteurist, formalist, marxist, feminist, and psychoanalytic methods will be explored.

Fall 1998 and 1999. White.

88. American Attractions: Leisure, Technology and National Identity.**

Visual spectacles such as Barnum's museum, minstrel and Wild West shows and vaudeville shaped American "identity" from ethnic, racial, religious, geographical and gender differences and hierarchies, anticipating the national audiences of the Hollywood studio system and television networks. This team-taught interdisciplinary class focuses on the

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history and analysis of U.S. popular culture from the Civil War to the present.

Sharon Ullman (History, Bryn Mawr) and Patricia White.

Spring 1999.

89. Women and Popular Culture: Fiction, Film, and Television.

This course looks at Hollywood "women's films" and television soap operas, their sources in 19th and 20th century popular fiction and melodrama, and the cultural practices surrounding their promotion and reception. How do race, class, and sexual orientation intersect with gendered genre conventions, discourses of authorship and critical evaluation, and the paradoxes of popular cultural pleasures? *Uncle Tom's Cabin*, *Gone with the Wind*, *Rebecca*, *The Joy Luck Club*.

Spring 2000. White.

90. Queer Media.**

How are sexual identities mediated by popular culture? How do lesbian and gay film and video makers "queer" sexual norms and standard media forms? Challenging classic Hollywood's heterosexual presumption and mass media appropriations of lesbian and gay culture, we will examine lesbian and gay aesthetic strategies and modes of address in contexts such as the American and European avant-gardes, AIDS activism, and diasporan film and video movements.

White.

91. Feminist Film and Media Studies.**

This course focuses on critical approaches to films and videos made by women in a range of historical periods, national production contexts, and styles: mainstream and independent, narrative, documentary, video art, and experimental. Readings will address questions of authorship and aesthetics, spectatorship and reception, image and gaze, race, sexual, and national identity, and current media politics.

White.

92. Film Theory and Culture.**

A survey of major paradigms in classical and contemporary film theory and historiography: realism, montage, authorship, genre, narratology, semiotics of image and sound, the cinematic apparatus, spectatorship, feminism, and cultural studies. Directors include: Eisenstein,

Vertov, Welles, Ophuls, Godard, Akerman, Lanzman, Jarman, Trinh.

Fall 1999. White.

93. Studies in Film and Literature.

A study of the complex ways in which film and literature interact. *Heart of Darkness* as the source and inspiration for *Apocalypse Now*. The collaboration of Handke and Wenders on *Wings of Desire*. The self-reflexive meta-forms of Pirandello and Resnais. Dramatic and cinematic treatments of Kaspar Hauser and the *Elephant Man*. The art of Pinter on stage and screen.

Williamson.

97-99: INDEPENDENT STUDY AND CULMINATING EXERCISES

97. Independent Study.

Students who plan an independent study must consult with the appropriate instructor and submit a prospectus to the Department by way of application for such work before the beginning of the semester during which the study is actually done. Deadlines for the receipt of written applications are the second Monday in November and the first Monday in April. Normally limited to juniors and seniors. Staff.

98,98A. Senior Thesis.

Course majors in the Department may pursue a thesis of their own choosing under the supervision of a member of the Department. The thesis may be for one (40-50 pages) or two (80-100 pages) credits. A brief prospectus for the project must be submitted for approval by the Department in April of the junior year. Before submitting this prospectus, Course majors should consult with the Department Chair and with the Department member who might supervise the project. This work must be separate from that of the senior culminating essay, required of every course major for graduation.

99. Senior Culminating Essay.

During the fall and spring terms of the senior year, each course major is required to write a senior essay. Proposals are due in the fall and completed essays are due in the spring. Details about the essay are available in the Department Office. One-half credit will be awarded

for the essay, normally in the spring term; the essay will receive a regular letter grade.
Spring semester. Staff.

SEMINARS

Group I: (Pre-1830)

101. Shakespeare.*

Study of Shakespeare as dramatist and poet. The emphasis is on the major plays, with a more rapid reading of much of the remainder of the canon. Students are advised to read through all the plays before entering the seminar.

Fall 1998 and 1999, Spring 1999. Blackburn.

Fall 1998. Blum.

Spring 1999 and 2000. Johnson

102. Chaucer and Medieval Literature.*

A survey of English literature, primarily poetry, from the 8th through the 15th century with an emphasis upon Chaucer. Texts will include *Beowulf*, *Sir Gawain and the Green Knight*, *The Canterbury Tales*, *Troilus and Criseyde*, *Pearl*, *Piers Plowman*, selected medieval plays, Arthurian materials, and Margery Kempe's autobiography. Chaucer will be read in Middle English; other works will be read in translation or modernized versions.

Fall 1999. Williamson.

104. Milton.*

Study of Milton's works in relation to questions of authorial identity, canon formation, gender and genre politics, spiritual and social revolution and containment. Special emphasis on *Paradise Lost*, and some attention to works by Milton's male and female contemporaries.
Blackburn or Blum.

106. Renaissance Epic.*

The two major English epics of the period, Spenser's *Farie Queene* and Milton's *Paradise Lost*, considered in contexts of social and literary history, including two epic antecedents, Virgil's *Aeneid* and Tasso's *Jerusalem Delivered*.
Blackburn.

107. Renaissance Literature.*

Covers a range of Renaissance writing, emphasizing relations between texts and their social

realms. We'll study the private exchange of elite poetic texts, the relation between fame and stigma for published authors, the profession of the playwright, the roles of women who wrote, and the uses of writing in the Civil War. Our readings will include significant amounts of Shakespeare, non-Shakespearean drama, criticism and theory.
Johnson.

110. Romantic Poetry.*

We'll read the women poets of the period (Smith, Robinson, Baillie, Wordsworth, Hemans and L.E.L.) alongside their more famous male contemporaries (Blake, Wordsworth, Coleridge, Byron, Shelley and Keats) in order to explore issues of concern to both. Topics may include: revolution, theatricality, hauntings, class conflict, orientalism and empire.
Bolton.

Group II: (Post-1830)

111. Victorian Literature and Culture.

This seminar will treat novels, non-fictional works, and visual art from the Victorian period in the context of Britain's age of empire. We will consider the major issues of the day—the "Condition of England" question, the "woman question", theories of evolution and revolution, the role of aesthetics—and how they are engaged and represented by different media and disciplines. Works by Carlyle, Mill, Marx, Darwin, Gaskell, Eliot, Gissing, Schreiner, Wilde, among others.

Fall 1999. Lesjak.

112. Women and Literature.**

A. Issues of agency and subjectivity as set out by contemporary women writers in current fiction, autobiography, feminist and womanist theory. Topics include body image, narratives of race, nation and strategic essentialism, gender and sexuality, feminist science fiction, and spirituality. Works by Erdrich, Morrison, Tiptree, Allison, Suleri, Sapphire, Winterson, Moraga, Shikeguni, Butler, among others.

Fall 1998 and 1999. Blum.

B. Women's Poetry of the Twentieth Century: "Tell it slant," Emily Dickinson advises, and women poets—whether or not they have read her work—have typically taken her subversive

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advice to heart. How women “slant” their truth, and how their poetic methods differ—if at all—from those of their male counterparts will form the center of this inquiry into Modernist and post-Modernist feminist aesthetics.

Anderson.

115. Modern Comparative Literature.

The fall semester will focus on fiction responsive to colonial and postcolonial conditions. Writers will include Conrad, Forster, Achebe, Emecheta, Faulkner, García-Márquez, Morrison, Silko, Erdrich, and Rushdie.

Fall 1998 and 1999, Spring 2000. Weinstein.

116. American Literature.

This semester we will study southern American prose by both blacks and whites and theories of southern literature as a coherent tradition, or at least a long-running argument, about culture, history, race, progress, freedom, tradition, humor, and other matters that southerners tend to understand differently from the rest of the country. We will begin with representative nineteenth-century works, then move to twentieth-century classics, then conclude with a variety of post-World War II works.

Schmidt.

117. Ethnic Studies in Literature.

This seminar will be an intensive examination of the methodologies and debates within American Ethnic Literary Studies. We will take a comparativist approach to thinking about how African American-, Native American-, Chicano/a-, and Asian American-Studies conceptualize racial identity, political oppression, and oppositional strategies, focussing both on the possibilities and the limitations offered by such identitarian theories. We will also think about Feminism, Queer Theory, and their points of convergence and divergence with Ethnic Studies and Post-Colonial theory.

Fall 1999. Saragosa.

118. Modern Poetry.

A study of the poetry and critical prose of Yeats, Eliot, Stevens, and H.D., in an effort to define their differences within the practice of “Modernism,” and to assess their significance for contemporary poetic practice.

Fall 1999. Anderson.

120. Critical and Cultural Theory.**

“Culture is one of the two or three most complicated words in the English language” concedes Raymond Williams in *Keywords*. The influence of linguistics on philosophy and anthropology will lead us to the subject of culture—and the subject in culture. Marx, Freud, Saussure, Benjamin, Levi-Strauss, Fanon, Irigaray, Foucault, Sedgwick, de Lauretis.

Fall 1998 and Spring 2000. White.

121. The Harlem Renaissance and The Jazz Age.

This study extends and challenges received conceptions of the Harlem Renaissance by reading the era in relation to The Jazz Age—African American modernism side by side with American cultural nationalism. It weighs the effects of focusing on intersections between American/African American (and African) cultural positions and their impact on each following World War I. Texts may range from Hughes and Hurston to Stein and O’Neill.

Spring 1999. James.

180. Thesis.

A major in the Honors Program may, with Department permission, elect to write a thesis as a substitute for one seminar. The student must select a topic and submit a plan for Department approval no later than the end of the junior year. Normally, the student writes the thesis of 80-100 pages, under the direction of a member of the Department, during the fall of the senior year.

Staff.

183. Independent Study.

Students may prepare for an Honors Examination in a field or major figure comparable in literary significance to those offered in the regular seminars. Independent study projects must be approved by the Department and supervised by a Department member. Deadlines for the receipt of written applications are the second Monday in November and the first Monday in April.

Staff.

199. Senior Honors Study. For English majors or minors in the Honors Program.

Honors majors will write one or two essays totaling 7,500 words, using texts, methodologies, or critical problems drawn from at least

two of their Honors preparations. When appropriate, this essay, intended to extend, enhance, or integrate work done in the preparations, may draw on the minor as well as the major fields. One credit.

Honors minors have four options: they may include work in the English minor as part of the SHS project in the major field, write an essay of 2,500 words on a topic pertinent to the minor preparation (either a revised seminar paper or a paper newly written), prepare additional readings with the advice of the seminar instructor, or explore a special topic related to the work of the seminar. One-half credit.

Students should consult with the Department Chair in the fall of the senior year about this work. Additional handouts about Senior Honors Study are available in the Department office.

THEATRE STUDIES

The Theatre Studies major uses the study of all aspects of dramatic art as the center of a liberal arts education. It is intended to be of broad benefit regardless of a student's professional intentions. All courses in the program address the processes of play production, especially as they involve collaborative making; all production for performance in the program is part of course work.

Theatre Studies emphasizes writing as an important aspect of discursive thinking and communication. All courses have a significant writing component, the nature of which varies from course to course.

Since in practice public performance engages theatre artists for less time and is less complicated than rehearsal and other preparations, it receives proportionally less attention in this curriculum. Since all work in theatre eventually issues in a public occasion, classes are usually open to visitors.

REQUIREMENTS AND RECOMMENDATIONS

Planning a program in Theatre Studies can be complicated. First and second year students thinking about a Theatre Studies major should read these Requirements and Recommenda-

tions closely, and should consult with the Director of The Theatre early and often. Leave schedules, a wide variety of intern and apprentice programs, and the importance of course sequences make long-range planning essential.

Courses numbered 1 through 10 are introductory and are prerequisite to intermediate courses.

Courses numbered 11 through 49 are intermediate and are prerequisite to advanced courses numbered 50 through 99.

Seminars carry numbers 100 and above.

Intermediate work in each of the course sequences requires a beginning course in that area. Thus, the prerequisite for Theatre 12 (Acting II) is Theatre 2 (Acting I); for Theatre 14 (Design II), Theatre 4 (Design I) and so on throughout the program.

Some advanced courses carry additional prerequisites which are listed in the course descriptions.

Major in the Course Program: Ten credits of work including Theatre 2 (Acting I), Theatre 4 (Design I), Theatre 5 (Performance Lighting Design), Theatre 15 (Directing I), Theatre 21 (Production Dramaturgy), and Theatre 106 (Theatre History Seminar), and Theatre 99 (Senior Company). In addition, each major will choose an area of specialization and take the intermediate and advanced courses in that area.

The areas of specialization are Acting, Directing, Scenography, Playwriting, Dramaturgy, and Theatre History. Special arrangements will be made for students who seek secondary school certification. Prospective majors should consult with the program Director about their choice.

In addition to these course requirements, the major includes a comprehensive examination in two parts: 1) an essay relating the student's experience in Senior Company to the reading list and course work; and, 2) an oral examination on the essay and related subjects by Theatre faculty and visitors.

Major in Honors: Honors students majoring in Theatre Studies will make three preparations, as follows.

1. Theatre History Seminar; written exam and an oral set by an outside examiner.
2. Thesis attachment to a course; reading by an

outside examiner and an oral.

3. A production project in one of the following fields.

Directing from a script. The student will, under faculty supervision, read in the playwright's work, make a director's preparation for the entire play, and rehearse for public presentation a locally castable portion of the chosen play. The instructor will supervise these activities appropriately, on the model of a special project in Theatre. The external examiner will visit this project several times (depending on schedule and available funds). These visits (to rehearsal or planning session) will not include feedback from the examiner. The examiner attends rehearsal in order to know as much as possible about the student's methods of making the work. The examiner also attends one or more of the public performances. The exam proper will consist of an extended interview directly following the performance and a briefer oral during honors weekend. The subject of the first interview will be the student's processes as they relate to the production. The second oral will concern the student's assessment of the entire process as a part of his or her undergraduate education and future plans. The student will support both interviews with an extensive production journal.

Design from a script. The student will prepare all research, sketches, and preliminary writing for a production in a designated venue. He or she will make renderings, working drawings, and a model, and will prepare detailed budgets, schedules, etc. In addition to the model, the student will supervise the construction of a buildable portion of the design. The local instructor will supervise these activities appropriately, on the model of a special project in Theatre. The external examiner will receive copies of all materials as the student generates them, and will pay special attention to the way in which the project develops under continual revision. During the honors weekend, the examiner will see the full sized portion and the model. The exam proper will be an extensive presentation by the student, of the entire project, with special attention to processes of development and revision. During this presentation, the examiner (probably a professional designer, not necessarily an academic) will question the student, on the model of advanced classes in architecture.

Dramaturgy for production from a script. If possible, this project will be associated either with an honors exam in Directing, or the Playwright's Lab, or Acting III. The student will create the usual writing for a professional play production, including notes on production history and given circumstances, play form, program and press kit notes, study guide, and a grant proposal for production funding. The student will continue to work on the project in rehearsal if that is possible. The external examiner will receive these materials as they are generated, in order to pay close attention to the dramaturg's process of continual reconception of the work. If the work is rehearsed, the external examiner will attend one or more rehearsals, strictly as an observer. If the work is performed, the examiner will attend a performance. The exam proper, given during the honors weekend, will consist of an extended oral presentation of the play as finally conceived, similar to a design presentation. The examiner will question the student, especially as to the relationship between early conceits, the rehearsal process, and the performance.

Acting. This student will play a role in an Acting III class. The external examiner will attend as many rehearsals as possible, in order to observe the work of rehearsal, as distinct from the work of performance. The student will keep an extensive production journal which will support his or her discussion of the project with the examiner in an extended interview immediately following the performance. During the honors weekend the examiner will conduct a briefer oral, concentrating on the actor's reconsideration of the work after some time has passed.

Playwriting. This project will be attached to Theatre 56, the Playwright's Lab. It will include writing a piece of some length for rehearsal and performance. The external examiner will read successive drafts as they are available and will attend some rehearsal of the piece as well as its public performance. The examiner will conduct an extensive interview immediately following the performance, focusing on the script development process and the influence of rehearsal on the writing. On the honors weekend, the examiner will give a briefer oral based on a final revision of the script following performance.

These three exams will be the normal honors

major in Theatre Studies. Honors students will take Senior Company in the fall of senior year, while they are planning their production project. The usual schedule will be: spring of junior year, Theatre History Seminar; fall of senior year, Theatre 99 and project planning; spring of senior year, thesis and production project.

Double majors taking three exams in Theatre will also follow that schedule.

For double majors taking one exam and comps in Theatre, the exam may be a production project, depending on available resources.

Minor in Honors. All Theatre Studies minors are required to take Theatre 106 (Theatre History Seminar). Minors may petition at the end of the junior year to enroll in Theatre 99 (Senior Company) if they have otherwise completed the prerequisites for the course.

Co- and extra-curricular work in Theatre, while not specifically required, is strongly recommended for majors. Opportunities include paid and volunteer staff positions with The Theatre, in-house projects for various classes; production work in The Eugene M. and Theresa Lang Performing Arts Center, and Drama Board production.

For those majors who intend a career in professional theatre, whether academic, not-for-profit, or commercial, internships in local theatres are strongly recommended. The Pig Iron Theatre Company is in residence on campus during the summer. Positions are usually available in production, development, public relations, marketing, box office, and house or stage management. Positions are usually not available in acting, directing, or design.

Because of scheduling difficulties, students should plan and apply for internships, time spent off campus, and community projects as far in advance as possible.

With respect to the twenty course rule, courses in dramatic literature taught in the Departments of English Literature, Classics, or Modern Languages and Literatures may be designated as part of the major. Courses in non-dramatic literatures taught in those Departments will not be considered part of the major.

INTRODUCTORY COURSES

1. Making Theatre.

How theatre is made in the United States: commercial, not-for-profit, academic. Theatre professionals (schedules permitting) meet with the class for discussion and workshops. How to make theatre locally, using collaborative ensemble techniques and available space and material. Weekly lab sessions leading to in-house performance of original work. Short papers based on reading, local rehearsals and performances, and class projects. This course is required of all Theatre Studies majors; it may serve as a prerequisite for dramatic literature courses (not seminars) in English Literature.

Primary distribution course.

Fall 1998. Devin.

2. Acting I.

Work on the self through fundamental exercises in acting: vocal and physical warm-up; focus and release; sense and affective memory; journals. Work toward collaborative models and the use of improvisation as a tool for invention and discovery. Short papers on local rehearsals and performances. This class meets six hours a week.

Fall 1998. Ferguson.

Spring 1999. Devin.

4. Design I: Production Stage Design.

This course is intended to introduce students to the artistic world of theatre design. It includes projects in rendering, model making, and computer aided design. Students will survey selected set designers from the Renaissance to the 20th century. Text: *Designing and Painting for the Theatre* by Lynn Pecktal; Software: *KeyCAD Complete* by Softkey. There is a required three hour lab once a week, either Monday or Wednesday from 1:00-4:00 p.m. This lab visits theatres in the Philadelphia area.

Fall 1998. Marshall.

5. Performance Lighting Design.

This is an exploratory class in the complexities of lighting design. The course objective is to introduce lighting concepts and how to express them. It is intended to demystify an enormously powerful medium. This course will culminate in a fullscale lighting design for a public

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performance of a Directing III project. Text: *Designing with Light* by J. Michael Gillette; Software: Power CADD and MacLux Pro-C.

Prerequisite: Theatre 4.

Spring 1999. Marshall.

6. World Performance Traditions.

A comparative and cross-cultural survey of classical, modern, and contemporary approaches to theatrical performance. The course will combine the classroom study of theatre history, performance theory, and production dramaturgy with practical exercises in acting, playwriting, directing, etc. Assigned materials will include a variety of plays and video tapes as well as historical and theoretical texts relating to performance. A variety of writing required, ranging from playwriting exercises to critical and research papers.

Primary distribution course.

Spring 1999. Babb.

INTERMEDIATE COURSES

12. Acting II.

Work on playscripts through scene study and rehearsal process: given circumstances, character biography; objectives; tasks and behavior; activities and actions; vocal and physical warmup; focus, release, and body awareness. Short papers on local rehearsals and performances. This course meets six hours a week.

Prerequisite: Theatre 2.

Fall 1998, Spring 1999. Belver.

14. Design II: Scenographic Design.

The development of a scenic design in response to a play's symbolic expression. This course will focus on the creative and artistic processes of the scenic designer. It is centered around a project for a major production design. Work will be conducted in areas of research, perspective drawing, model making, and mechanical drawing with computer aided design programs. Text: *Designing and Painting for the Theatre* by Lynn Pecktal; Software: PowerCADD. Required readings include *Sceno-Graphic Techniques* by Owen Parker, and *Theory and Craft of the Scenographic Model* by Darwin Payne.

Prerequisite: Theatre 4.

Fall 1998. Marshall.

15. Directing I.

This course covers a series of major texts on performance theory and practice, with emphasis on directing and acting. Assigned readings will focus on theoretical writings by or about the performance work of artists such as Zeami, Stanislavsky, Artaud, Brecht, Grotowski, Mnouchkine, Chaikin, Suzuki, and Robert Wilson, as well as selected theoretical and critical texts by non-practitioners. The course includes units on performance traditions and genres outside of Europe and North America. Weekly video screenings required.

Prerequisite: Theatre 1 or the instructor's consent.

Spring 1999. Kuharski.

16. Playwright's Lab.

Exercises in writing, improvisational rehearsal, plotting and dramaturgy which result in a performance. This class includes weekly lab sessions with New Voices, an acting ensemble composed of high school students from the City of Chester and Chester County, and artists from the People's Light and Theatre Company. Traditional playscript construction, as well as organizing and recording improvisations.

Prerequisite: Theatre 1 or the instructor's consent.

Fall 1998. Adams.

21. Production Dramaturgy.

Dramaturgy as a part of play production. Exercises in playscript conception, analysis, and preparation; discovery of given circumstances and support materials; conception and analysis of rehearsal process. Weekly lab sessions.

Prerequisite: Theatre 1.

Fall 1998. Devin.

35. Directing II.

This course focuses on the theatre director's role in a collaborative ensemble and on the ensemble's relation to the audience. Units cover the director's relationship with actors, designers, composers, technicians, choreographers, as well as playwrights and their playscripts. The student's directorial self-definition through this collaborative process is the laboratory's ultimate concern. Final project

consists of an extended scene to be performed as part of a program presented by the class.

Prerequisites: Theatre 2, 4, and 15.

Fall 1998. Kuharski.

ADVANCED COURSES

52. Acting III.

An advanced scene study studio; given circumstances and dramaturgy; vocal and physical character making.

Prerequisite: Theatre 12, Acting II.

Spring 1999. Devin.

54. Design III: Designing for Performance/The Firm.

As a foundation for The Firm, this course calls upon the teachings of Jo Mielziner and Frank Lloyd Wright. The objective of the course is to create what Jo Mielziner called a "harmony of style." This is accomplished by bringing together theatre design students in a studio-workshop much like those of the Renaissance. Students will develop and design the scenography for a Spring honors project in the Theatre Studies Program. Text: *Designing and Painting for the Theatre* by Lynn Pectal; Software: PowerCadd.

Prerequisite: Theatre 4, 5, and 14.

Spring 1999. Marshall.

55. Directing III.

Director's Lab requires students to apply the exercises from Directing II (Theatre 35) to a variety of scene assignments. These will address a variety of theatrical genres (farce, epic theatre, verse drama, etc.) and various approaches to dramatic text (improvisation, cutting and/or augmentation of playscripts, adaptation of non-dramatic texts for performance, etc.). Projects will usually be presented for public performance.

Prerequisite: Theatre 35.

Spring 1999. Kuharski.

56. Playwright's Lab II.

Continuation of work with New Voices and an emphasis on longer forms. Rehearsal and production of class material for a spring tour.

Prerequisite: Theatre 16.

Spring 1999. Adams.

92. Off-campus Projects in Theatre.

Residence at local arts organizations and theatres. Fields include management, financial and audience development, community outreach, stage and house management.

Prerequisite: Appropriate preparation in the major.

Fall 1998, Spring 1999. Staff.

93. Directed Reading.

94. Special Projects in Theatre.

99. Senior Company.

A workshop course emphasizing issues of collaborative play making across lines of specialization, ensemble development of performance projects, and the collective dynamics of forming the prototype of a theatre company. Work with an audience in performance of a single project, or a series of projects.

This course is required of all Theatre Studies majors in their senior year and will not normally be taken for external examination. Class members will consult with the instructor during spring semester of their junior year, prior to registration, to organize and make preparations. Non-majors and honors minors may petition to enroll, provided they have met the prerequisite.

Prerequisite: Completion of one three course sequence in Theatre Studies.

Fall 1998. Devin.

SEMINARS

106. Theatre History Seminar.

A critical and comparative survey of selected theatrical companies from the early Renaissance through the 20th Century. Emphasis on collaborative relations within a given theatrical company, placement of theatrical performances within specific cultural contexts, and their relevance to contemporary theatrical practice. Readings will include, but not be limited to, dramatic texts as one form of artifact of the theatrical event. The Spring 1999 seminar will focus on the work of Ariane Mnouchkine and the Théâtre du Soleil in France.

Prerequisite: Theatre 15 or consent of instruc-

Theatre Studies

tor..

Spring 1999. Kuharski.

NB: Theatre 106 will be taught in the fall semester in 1999-2000.

Environmental Studies

Coordinator: **CARR EVERBACH** (Engineering)
Committee: **Wendy Horwitz** (Psychology)¹
Rober Latham (Biology)
Arthur McGarity (Engineering)
Carol Nackenoff (Political Science)
Hans Oberdiek (Philosophy)
Frederick Orthlieb (Engineering)¹
Wesley Shumar (Education)
Michael Speirs (Sociology and Anthropology)
Don Swearer (Religion)³
Richard Velely (Political Science)
Mark Wallace (Religion)

1 Absent on leave, fall semester 1998.

3 Absent on leave, 1998-99.

Profound, anthropogenic changes are occurring in the land, water, and air around us, and education needs to respond to these changes. Swarthmore's heritage of social concern compels us to educate students so that they are well informed about vital, current issues, and capable of full political participation. The College has a responsibility to provide means for the study of environmental problems and to encourage students to develop their own perspectives on these problems. The Environmental Studies Concentration is one way that the College meets these responsibilities.

Environmental Studies is truly interdisciplinary and offers numerous opportunities for rigorous interdisciplinary work because environmental issues have scientific, engineering, social, political, economic, literary, and philosophical dimensions, all of which must be addressed. The Concentration helps guide students to the many academic fields that afford a perspective on environmental problems and enables them to explore questions most compelling to them from the vantage point of various disciplines in the natural and social sciences, engineering, and the humanities.

A Concentration in Environmental Studies consists of an integrated program of five courses plus a capstone seminar that a student takes in addition to a regular major.

Concentrators must take five courses from the list below, including at least one course in Environmental Science/Technology, at least

one course in Environmental Social Science/Humanities, and at least one more from either of these two groups for a minimum of three courses in these two categories. Up to two courses may be chosen from the list of Adjunct Courses. Students may petition the Faculty Committee on Environmental Studies to have courses taken at other institutions fulfill some of these requirements. At least three of the five courses must be outside the major. One of the courses may be independent work or a field study (in the U.S. or abroad) supervised by a member of the Committee (Environmental Studies 90). In addition to the five courses, each concentrator will participate in the Capstone Seminar in Environmental Studies (Environmental Studies 91) during the spring semester of the senior year. The capstone seminar will involve advanced interdisciplinary work on one or more issues or problems in environmental studies. Leadership of the Capstone Seminar rotates among the members of the Faculty Committee on Environmental Studies.

COURSES IN ENVIRONMENTAL SCIENCE/TECHNOLOGY

The Environmental Science/Technology category includes courses which emphasize techniques and methodologies of the sciences and engineering and whose subject is central to

Environmental Studies

Environmental Studies. Therefore all concentrators will be familiar with a body of scientific knowledge and scientific approaches to environmental problems.

Chemistry 1: Chemistry in the Human Environment

Biology 36: Ecology

Biology 39: Marine Biology

Biology 121: Physiological Ecology

Biology 130: Behavioral Ecology

Biology 137: Biodiversity

Engineering 32: Introduction to Environmental Protection

Engineering 63: Water Quality and Pollution Control

Engineering 66: Environmental Systems

Geology 103 (Bryn Mawr College): Environmental Geology

COURSES IN ENVIRONMENTAL SOCIAL SCIENCES/HUMANITIES

The Environmental Social Science/Humanities category includes courses which are central to Environmental Studies and which focus on values, their social contexts, and their implementation in policies. Thus, all concentrators will have studied the social context in which environmental problems are created and can be solved.

Economics 76: Economics of the Environment and Natural Resources

Education 65: Environmental Education

Engineering 68/Political Science 43: Environmental Policy

Political Science 222 (Bryn Mawr College): Introduction to Environmental Issues

Psychology 57: Psychology and Nature

Religion 22: Religion and Ecology

Sociology and Anthropology 64: Seeds of Change: The Environmental Consequences of the Agricultural Revolution in Prehistory.

ADJUNCT COURSES

There are other courses which are relevant to Environmental Studies and which can be included in the five courses required for the concentration, but are not central enough to justify their inclusion in the groups above.

Astronomy 9: Meteorology

Biology 16: Microbiology

Biology 26: Invertebrate Zoology

Biology 27: Crop Plants

Engineering 3: Problems in Technology

Engineering 35: Solar Energy Systems

Engineering 64: Swarthmore and the Biosphere

Environmental Studies 90: Directed Reading in Environmental Studies

(Advanced permission of instructor is required.)

Mathematics 61: Modeling

Physics 20: Principles of the Earth Sciences

Political Science 47: Politics of Famine and Food Policy

Political Science 65: Politics of Population

Francophone Studies

Coordinator: **Brigitte Lane*** (French)
Committee: **Jean Vincent Blanchard**¹¹
Robert DuPlessis* (History)
James Freeman (Music)
Sharon Friedler (Dance)
Bruce Grant (Sociology/Anthropology)
Cynthia Halpern (Political Science)
Constance Hungerford* (Art History)
Tamsin Lorraine (Philosophy)
George Moskos* (French)
Micheline Rice-Maximin* (French)³
Robert Roza (French)¹⁰
Mark Wallace (Religion)
Philip Weinstein (English)³

**Members of the Steering Committee*

3 Absent on leave, 1998-99.

10 Program Director, Swarthmore Program in Grenoble, Fall, 1998.

11 Program Director, Swarthmore Program in Grenoble, Spring 1999.

The concentration in Francophone Studies explores areas and peoples significantly influenced by and participant in Francophone cultures throughout the world: Africa, the Americas, Europe, and South-East Asia. It takes a broad view of cultural achievements and thus will examine cultural diversity and identity at all community levels. Through the use of analytical methods drawn from both the humanities and the social sciences, the concentration encourages interdisciplinarity in courses, seminars, and student programs of study. Within a cultural studies approach, various perspectives will be used in order to establish new critical and theoretical paradigms better to understand the complex relations and reciprocal influences between "centers" and "peripheries."

Through the study of an important transnational culture, the Concentration will prepare students for graduate education and careers in international relations, business, law, and academic disciplines, and enable them to participate better in our increasingly globalized world. Besides the study of francophone language, literature, and culture courses offered in the Department of Modern Languages, students

will have the opportunity of using French-language materials in many of the courses and seminars offered by other departments.

General Requirements: A concentration in Francophone Studies consists of five credits from courses designated below. Students should note that most courses have prerequisites, which must be satisfied before courses may be taken. No more than two credits may be from the student's major department, and at least two credits must come from courses marked #. Only one credit taken abroad may count toward the concentration. At least three credits must come from core courses and seminars while only two credits may come from cognate courses or seminars. Students are expected to work in at least 2 departments.

To ensure a strong groundwork for all concentrators, one of the credits must be a core course; we particularly recommend French 25 and History 22 but any of the core courses or seminars can function as an introductory course. In addition to the five credits, each concentrator will complete a 15-20 page independent, interdisciplinary Senior Paper. The initial proposal and bibliography, which are due immediately after the Thanksgiving break, must be

Francophone Studies

approved by two professors in two different departments. The completed paper is due at the end of spring break.

Students are required to be proficient in the French language: to complete French 4 or the equivalent. They are strongly encouraged to study abroad in a French-speaking country. In addition, they must either take an advanced literature or culture course in French, or use French-language sources in the Senior Paper. In any case, students are encouraged to read French-language materials in the original language wherever possible.

Courses and seminars that may be offered for a Francophone Studies Concentration are : (# indicates courses that cover Francophone material outside of France and/or multicultural material).

I. CORE COURSES AND SEMINARS (75%-100% Francophone content): at least three credits required:

Courses in disciplines other than French:

Art History 17: Nineteenth-century European Art

#History 22: Early Modern France & the Francophone New World

History 27: To the Barricades: The European Revolutionary Tradition

History 30: France since 1789: Revolutions, Republics, Empires

Seminars in disciplines other than French:

Art History 145: Gothic Art and Architecture

Art History 160: Eighteenth-Century Western Art

Art History 164: Modern Art Seminar

Philosophy 145: Feminist Theory Seminar

Theatre 106: Theatre History Seminar

French courses numbered 12 and above:

#French 12C: Literature and Culture of Québec

#French 12C: France "Year 2000": Introduction socio-culturelle à la France actuelle

French 12L: Introduction à l'analyse littéraire

French 22: Le Cinéma français

#French 23: Topics in French Civilization: Multicultural France

#French 24: Société et littérature: Cultures de l'exil

#French 25: Centers and Peripheries in the Francophone World

French 30: Topics in 17th and 18th Century Literature

#French 33: Le Monde francophone: résistances et expressions littéraires

#French 36: Poésie d'écritures françaises

#French 37: Ville et exclusion

French 40: French Theatre and Cultural Studies

French 60: Le Roman du 19ème siècle

French 61: Odd Couplings: Writing and Reading Across Gender Lines

French 62: Le Romantisme

French 65: Baudelaire and symbolism

French 70: Théâtre Moderne: Beyond Realism: Meta-Theater in French and European Drama

#French 70F: Caribbean and French Civilizations and Cultures

French 71F: French Critical Discourse: From Barthes to Baudrillard

French 72: Le Roman du 20ème siècle

#French 75F: Haïti and the French Antilles and Guyane in translation

#French 76: Femmes écrivains

#French 77: Prose francophone: Littérature et société

#French 78: Théâtre d'écritures françaises: connaissance et société

French 79F: Scandal in the Ink: Lesbian/Gay Traditions in French Literature

French 80F: Cities and Ghettos in Europe: Comparative Approaches to Ethnic relations in Europe and America

#French 91: Special Topics (Counting as # depending on the topic of the year)

French seminars:

French 102: Baroque Culture and Literature

French 104: Stendhal et Flaubert

French 105: Proust

French 106: Poésie symboliste

French 108: Le Roman du 20ème siècle

French 109: Le Romantisme

#French 110: Ecritures françaises hors de France: Fiction et réel

#French 111: Espaces Francophones: La Ville réelle et imaginaire

#French 112: Ecritures Francophones: Fiction and History in the French-speaking World

#French 113: Voyage et littérature: Exploration, nomadisme et migration

II. COGNATE COURSES AND SEMINARS (30% Francophone content minimum): no more than two credits may count toward the concentration.

A. Cognate courses:

Art History 18: Twentieth-Century Western Art

Art History 29: Film: Form and Signification

Art History 64: Philadelphia and American Architecture

Dance 22: History of Dance: Europe's Renaissance Through 1900

Dance 36: Dance and Gender

#Dance 37: The Politics of Dance Performance

#Economics 82: Political Economy of Africa

#History 8b: Modern Africa, 1880 to Present

History 20: Official and Popular Cultures in Early Modern Europe

Lit 14: Modern European Literature

Lit 22F: French/Italian/Spanish Cinema

Music 4: Opera

Music 22: Nineteenth-Century Music

Music 23: Twentieth-Century Music

Music 38: Color and Spirit

Philosophy 39: Existentialism

Political Science 3: Introduction to European Politics

Political Science 12: Modern Political Thought

Sociology/Anthropology 2: Nations and Nationalisms

Sociology/Anthropology 36: History of the Cultural Concept

B. Cognate Seminars (30% Francophone content minimum):

History 117: State and Society in Early Modern Europe

History 122: Revolutionary Europe 1750-1870

History 124: Europeans and Others since 1750

#History 140: The Colonial Encounter in Africa

Philosophy 139: Phenomenology, Existentialism and Post-Structuralism

Political Science 101: Political Theory: Modern

Religion 112: Postmodern Religious Thought

Sociology/Anthropology 102: History and Myth

Sociology/Anthropology 103: Gift and Fetish

Note: Among all the courses listed above, those satisfying the requirement of at least two credits covering Francophone material outside of France and/or multicultural materials are marked #. These can be courses in French or in other disciplines. French 91 (Special Topics) may count among this category, depending on the topic of the year.

Francophone Studies

THE MINOR IN FRANCOPHONE STUDIES

To be eligible to minor in Francophone Studies for the Honors Program, students must complete all the requirements for the Francophone Studies concentration. This entails the completion of five credits, and the writing of the Senior paper. Candidates for an honors minor will offer a single two-credit preparation outside the designated honors major. The student will follow the requirements for Senior Honors Study for the minor in the department in which the seminar is offered, and take that exam.

German Studies

- Coordinator: **Christopher Pavsek** (German)
Committee: **Richard Eldridge** (Philosophy)¹
Marion Faber (German)
James Freeman (Music)
Pieter Judson (History)
James Kurth (Political Science)
Tamsin Lorraine (Philosophy)
Michael Marisson (Music)
Braulio Muñoz (Sociology/Anthropology)
Sunka Simon (German)¹
Hansjakob Werlen (German)²
-

1 Absent on leave, fall semester, 1998.

2 Absent on leave, spring semester, 1999.

3 Absent on leave, 1998-99.

The concentration in German Studies grows out of the connection between German thought and art of the nineteenth and twentieth centuries. Figures such as Goethe, Wagner, Nietzsche, Marx, and Freud, for example, go beyond the boundaries of particular disciplines. In addition, the study of German history and politics enriches and is enriched by the study of German literature and art. A combination of approaches to German culture introduces the student to a field of knowledge crucial to contemporary society and prepares the student for graduate work in a good number of academic disciplines, as well as for various international careers. The Concentration may be undertaken in the Course Program or in the Honors Program. Concentrators should consult the program coordinator during the sophomore year to plan their work towards the Concentration.

General Requirements: Students are required to take five credits from designated courses in German Studies, three of which must be outside the student's major department. To ensure a common groundwork for all concentrators, students must take the core course, German 14, Introduction to German Studies. To ensure work in depth, at least one credit must be a thesis on an interdisciplinary topic, normally to be proposed at the end of the junior year and written in the fall semester of the senior year. An interdisciplinary thesis for the student's major department may fulfill this requirement.

It is required that students do substantial work in the German language (German 4 or the equivalent). It is also strongly recommended that students study in Germany (for a summer or, preferably, for a semester) if at all possible. After studying abroad, concentrators must take at least one additional class in German Studies. Students who do not take an advanced literature course must either use original German sources in the thesis or add an attachment in German to one course in the concentration.

Note: A student can accomplish a Special Major in German Studies by taking five additional credits from the courses listed below.

German Studies Minor in the Honors Program:

Requirements: The German Studies Concentration offers only a Minor in the Honors Program. Students in the German Studies Honors Program are expected to be sufficiently proficient in spoken and written German to complete all their work in German and are strongly advised to spend at least one semester of study in a German-speaking country. Candidates are expected to have a B average in course work both in the Department and at the College.

Prerequisites: German 14 and an advanced course in German Studies.

Preparations: a seminar in German Studies (or, in lieu of the seminar, two advanced courses in German Studies).

German Studies

Senior Honors Study and Examination:

For Senior Honors Study, students are required to present a 250-word outline (together with a bibliography) by February 15, indicating how they intend to deepen their preparation for the seminar. The approved preparation in the form of a single 3000-word paper will be added to the honors portfolio which will also include the seminar syllabus and student bibliography.

The Honors Examination will take the form of a three hour written exam based on a German Studies seminar or, in lieu of the seminar, two advanced courses in German Studies, the one half credit SHS preparation and a thirty to forty five minute oral exam based on all previous work in the field.

The following courses and seminars may be offered for a German Studies Concentration:

Courses (one credit)

History 34. Europe 1900. Eros and Anxiety.

History 35. The Jew as Other.

History 36. Modern Germany.

History 37. The Holocaust and German Culture./LIT 37G.

Music 22. 19th Century Music.

Music 33. Lieder.

Music 34. Bach.

Music 35. Late Romanticism.

Philosophy 39. Existentialism.*

Sociology-Anthropology 83. Senior Colloquium on Art and Society.*

German courses numbered 3B and above.

Courses on German literature or film, taught in English: LIT 20G, LIT 50G, etc.

Seminars (two-credits)

History 122. Revolutionary Europe.+

History 124. Europeans and Others Since 1750.+

History 125. Fascist Europe.

Music 101. Bach.

Philosophy 114. Nineteenth-Century Philosophy.

Philosophy 137. German Romanticism and Idealism.

Philosophy 139. Phenomenology, Existentialism, and Post-Structuralism.

Religion 106. Contemporary Religious Thought.

Sociology-Anthropology 101. Critical Modern Social Theory.

Sociology-Anthropology 105. Modern Social Theory.

Sociology-Anthropology 115. Freud and Modern Social Theory.

German 104. Goethe und seine Zeit.

German 105. Die deutsche Romantik.

German 108. German Studies Seminar: Wien und Berlin.

German 109. Rise of the Modern German Novel.

German 110. German Literature after World War II.

* Cognate course: No more than two may be counted towards the German Studies Concentration.

+ Cognate seminar: No more than one may be counted towards the German Studies Concentration.

History

ROBERT S. DUPLESSIS, Professor
LILLIAN M. LI, Professor
MARJORIE MURPHY, Professor¹
STEPHEN P. BENSCH, Associate Professor¹
PIETER M. JUDSON, Associate Professor
ROBERT E. WEINBERG, Associate Professor and Chair
TIMOTHY J. BURKE, Assistant Professor
ALLISON DORSEY, Assistant Professor
BRUCE A. DORSEY, Assistant Professor
LAURA GOTKOWITZ, Assistant Professor
THERESA BROWN, Administrative Assistant

¹ Absent on leave, fall semester, 1998.

³ Absent on leave, 1998-99.

COURSE OFFERINGS AND PREREQUISITES

The courses and seminars offered by the Department of History attempt to give students a sense of the past, an acquaintance with the social, cultural, and institutional developments that have produced the world of today, and an understanding of the nature of history as a discipline. The discipline of history is a method of analysis that focuses on the contexts in which people have lived and worked. Our courses and seminars emphasize less the accumulation of data than the investigation, from various points of view, of those ideas and institutions—political, religious, social, economic, and cultural—by which people have endeavored to order their world. The History Department's curriculum introduces students to historical methodology and the fundamentals of historical research and writing.

Courses and seminars offered by the History Department are integral to most interdisciplinary programs such as Black Studies, Francophone Studies, German Studies, Latin American Studies, Peace Studies, and Women's Studies and as well as to the majors in Asian Studies and Medieval Studies. Students interested in these programs should consult the appropriate statements of requirements and course offerings. In addition, we encourage students who wish to obtain teaching certification to major in history (see section on Teaching Certification for more information).

Survey Courses: Survey courses (2-9 and 72) are open to all students without prerequisites and are designed to serve the needs of students who seek a general education in the field, as well as to provide preparation for a range of upper-level courses. Survey courses provide broad chronological coverage of a particular field of history. Although these entry-level courses vary somewhat in approach, they normally focus on major issues of interpretation, the analysis of primary sources, and historical methodology. First-year seminars (10) explore specific historical issues or periods in depth in a seminar setting; they are open to first-year students and are limited to twelve students. Students with scores of 4 or 5 in Advanced Placement examinations receive preference in admission to First-year seminars. Upper-division courses (one credit) are specifically thematic and topical in nature and do not attempt to provide the broad coverage that surveys do. They are generally open to students who have taken 1) one of the courses numbered 2-10 and 72, or 2) who have Advanced Placement scores of 3 in the same area as the course they wish to take, or 3) scores of 4 or 5 in any area, 4) have the permission of the instructor, or 5) students who have taken Classics courses 31, 32, 42, and 44 are eligible to take upper-level courses. Exceptions are courses designated "not open to first-year students" or where specific prerequisites are stated.

Seminars: Admission to double-credit History seminars is selective and based on an evalua-

History

tion of the student's potential to do independent work and to contribute to seminar discussions. A minimum grade of B in at least two History courses is required of all students entering seminars. In addition, the opinions of Department members who have taught the student are solicited.

Sophomores hoping to take History seminars in their junior and senior years should give special thought to the seminars they list in their sophomore papers. The Department will weigh the merit of each request on the basis of the importance of the seminar to the student's proposed program, as well as the student's qualifications. Seminar enrollments are normally limited to nine. If you are placed in a seminar at the end of your sophomore year, you will be one of nine students guaranteed a space and you are, in effect, taking the space of another student who might also like very much to be in the seminar. Consequently, you should not list any seminar in your sophomore paper without being quite certain that you intend to take it if you are admitted. To help you make an informed choice about seminars, a binder entitled "History Department Seminars" containing syllabi of all seminars currently offered by the Department is available in the Department office. You may wish to consult it before writing your sophomore paper.

REQUIREMENTS FOR HISTORY MAJORS

Admission to the Department as a major normally requires at least two history courses taken at Swarthmore and a satisfactory standard of work in all courses. Beginning with the Class of 2002, one of these two courses will normally be a First-year seminar. Courses in Greek and Roman history offered by the Classics Department count toward this prerequisite. Students who intend to continue their studies after graduation should bear in mind that a reading knowledge of one or two foreign languages is now generally assumed for admission to graduate school.

All majors (course and honors programs) in History must take at least nine credits in the Department, chosen so as to fulfill the following requirements:

1. At least six of the nine credits are normally

done at Swarthmore.

2. At least one course or seminar at Swarthmore from each of the following categories: (a) All courses and seminars before 1750 (including Classics 31, 32, 42, and 44) and (b) All courses and seminars in areas outside Europe and the United States, specifically Africa, Asia, Latin America, and the Near East. This distribution requirement is designed to have students explore various fields of history and engage in comparative historical analysis. The Department has a list of these distribution courses on file in the Department office. The Department expects students to concentrate in topics or areas of special interest to them and to specify them in their Sophomore Papers.

Course Major:

- (a) Complete the Senior Research Seminar (History 91) in which students write a 25-page paper based on primary and secondary sources. The Department strongly believes that majors should develop their expertise in a chosen field of history by producing a piece of historical writing and analysis. This course satisfies the College's requirement that all majors and concentrations have a culminating exercise for their majors. The research paper should build upon a cluster of courses that the student has defined. The Department encourages students to suggest possible research topics in their Sophomore Papers and requires them to select topics by the end of their junior year. Possible research themes include but are not limited to: colonialism and imperialism, nations and nationalism, popular culture, urbanization, politics and diplomacy, revolution and rebellion, and economic history.

Thesis:

A student who wishes to write a thesis should state her or his intention by submitting a proposal at the beginning of the senior year. The Department must approve the topic before the student can enroll in History 92 (Thesis). The thesis should be a work of about ten to fifteen thousand words (50-75 pages), and a brief oral examination will be conducted upon completion of the thesis.

Major and Minor in the Honors Program (External Examination Program)

Seminars are the normal mode of preparation for students majoring in history in the Honors Program. Majors in the Honors Program will complete three double-credit preparations and revise one paper per preparation for their portfolio submitted to external examiners. Revised papers will not be graded but will be included in the portfolio to provide examiners a context for the evaluation of the written examination taken in the Spring. Students may substitute an Honors Thesis (History 180) for one of their seminars. The thesis and revised seminar papers are due by May 1.

Minors in the Honors Program will complete one double-credit preparation and include one revised paper from that preparation in their portfolio. We strongly advise minors to take additional work in the History Department as part of their preparation for Honors.

Students in seminars must take a three-hour written examination at the end of each seminar and will receive a grade from the seminar instructor for their overall performance in the seminar, including the written examination. Seminar instructors will not normally assign grades during the course of the seminar, but they will meet periodically with students on an individual basis during the course of the semester and discuss their progress.

Seminars are a collective, collaborative and cooperative venture among students and faculty members designed to promote self-directed learning. Active participation in seminar is therefore required of all students. Evaluation of performance in seminar will be based on the quality of seminar papers and comments during seminar discussions, in addition to the written examination. Since the seminar depends on the active participation of all its members, the Department expects students to live up to the standards of Honors. These standards include: attendance at every seminar session, submission of seminar papers according to the deadline set by the instructor, reading of seminar papers before coming to seminar, completion of all reading assignments before seminar, respect of the needs of other students who share the reserve binders and readings, and eagerness to engage in a scholarly discussion of the issues raised by the readings and seminar papers. The Department reminds students that the respon-

sibility for earning Honors rests squarely on the students' shoulders and will review on a regular basis their performance in the program. Failure to live up to the standards outlined above may disqualify students from continuing in the Honors Program. Students earn double-credit for seminars and should be prepared to work at least twice as hard as they do for single-credit courses.

Students enrolled in Senior Honors Study as majors in History are required to revise one paper for each of the three preparations (except for a thesis which has no SHS component) and submit them to the Department as part of their portfolio for the external examiners. The portfolio papers are written in two stages. During the first stage students must confer with their seminar instructors while they are enrolled in the seminars as to what papers they are preparing for Senior Honors Study and what revisions they plan for these portfolio papers. Seminar instructors will offer advice on how to improve the papers with additional readings, structural changes, and further development of arguments. The second stage occurs during Senior Honors Study when the student revises the papers independently. Faculty members are not expected to read the revised papers at any stage of the revision process. Each revised paper must be from 2,500 to 4,000 words and include a brief bibliography. Students will submit them to the Department office by May 1. The Department will assume that students failing to submit their revised papers by the deadline have decided not to complete the External Examination Program.

In addition, the Department expects students to form their own study groups to prepare for the external examinations. While faculty members may at their convenience attend an occasional study session, students are generally expected to form and lead the study groups. Once again, this is in keeping with the Department's belief that Honors is a collaborative, self-learning exercise that relies on the commitment of students.

Students enrolled in Senior Honors Study as minors in History will submit one revised paper to their portfolio. It is due by May 1. The instructions for the preparation of portfolio papers are the same for minors as they are for majors. The Department also encourages minors in Honors to form self-directed study

History

groups. The Department will assume that students failing to submit their revised papers by the deadline have decided not to complete the External Examination Program.

FOREIGN STUDY

The History Department encourages students to pursue the study of history abroad and grants credit for such study as appropriate. We believe that History majors should master a foreign language as well as immerse themselves in a foreign culture and society. In order to receive Swarthmore credit for history courses taken during study abroad, or at other colleges and universities in the United States, a student must have departmental pre-approval and have taken at least one history course at Swarthmore (normally before going abroad). The Department is unable to offer credit for courses taken abroad or elsewhere in the United States in which no Department member has expertise. Beginning with the Class of 2002, students who want to receive credit for a second course taken abroad or elsewhere in the United States must take a second history course at Swarthmore.

ADVANCED PLACEMENT

The History Department will automatically grant one credit for incoming students who have achieved a score of 4 or 5 in either the U.S. or European History Advanced Placement examinations if they take any introductory course (2-10 and 72). Beginning with the Class of 2002, students who want credit for two Advanced Placement history examinations for which they scored a 4 or 5 must take a second history course at Swarthmore. This course need not be an introductory course. Moreover, a grade of C or higher must be earned in the Swarthmore course(s) for the credit(s) to be granted. Advanced Placement credit may be counted toward the number of courses required for graduation and may be used to help fulfill the College's distribution requirements. Students with Advanced Placement credit may elect to take History 3 or 5a, 5b or 5c (but not more than one of these U.S. history survey courses). A grade of 3 allows students to take

an upper-division course in the same area as the Advanced Placement credit; a grade of 4 or 5 allows students to take any upper-division course in the History Department.

LANGUAGE ATTACHMENT

Certain designated courses offer the option of a foreign language attachment, normally for one-half credit. Permission to take this option will be granted to any student whose reading ability promises the profitable use of historical sources in a foreign language. Arrangements for this option should be made with the instructor at the time of registration.

TEACHER CERTIFICATION

Students who want to obtain secondary school teaching certification in the Social Sciences are required to take two courses in the History Department. One of these courses must be in U.S. history. Students with AP credit are encouraged to take European and U.S. history survey courses. Naturally, students who wish to obtain teaching certification may major in History and are especially urged to take Modern European history (3), United States history (preferably 5a and 5b) and a survey course in Asian, African or Latin American history. Seminar preparation will also strengthen one's background in history. Please consult the Program in Education for information on other requirements.

COURSES

2a. Medieval Europe.

A survey of medieval culture and institutions from the third to the fifteenth centuries.

This course may count toward a major in Medieval Studies.

Primary Distribution Course.

Not offered 1998-99. Bensch.

2b. Early Modern Europe.

The modern world began to be born in Europe between the fifteenth and eighteenth centuries

—replete with all the contradictions that have marked modernity ever since. Using primary sources, recent scholarship, and film, this course explores the manifestations of that paradoxical civilization: Renaissance and Reformation, secular state-building and religious war, Scientific Revolution and witch hunts, emergence of capitalism and renewed serfdom, Enlightenment and enslavement.

Primary Distribution Course.

Spring semester. DuPlessis.

3. Modern Europe.

A topical survey which covers the period 1750 to 1945 with an emphasis on the political, social and cultural forces that have shaped Modern Europe. Topics include the Enlightenment and popular culture, revolutionary movements, industrialization and its social consequences, nationalism and state-building, imperialism, and world wars.

Recommended for Teacher Certification.

Primary Distribution Course.

Fall semester. Judson.

4a. Colonial Latin America.

Thematic survey from the 16th-century Conquest through the independence wars of the early 19th century. Topics include: aspects of pre-Columbian civilizations, impact of conquest and colonialism on native societies; slavery; race relations and *mestizaje*; resistance and rebellion; crisis and collapse of colonialism; and the aftermath of independence.

This course may count toward a concentration in Latin American Studies.

Primary Distribution Course.

Fall semester. Gorkowitz.

4b. Modern Latin America.

Thematic survey from the immediate post-independence period to the present. Topics include social and political consequences of the wars for independence, the formation of nation-states and export economies in the 19th century, and the divergent paths Latin Americans have taken in 20th century struggles for democracy, social justice, economic development, and national autonomy in a region deeply marked by U.S. influence.

This course may count toward a concentration in Latin American Studies.

Primary Distribution Course.

Spring semester. Gorkowitz.

5a. The United States to 1877.

A survey of American history from colonies to nation, and from Revolution to Reconstruction.

Recommended for Teacher Certification.

Primary Distribution Course.

Not offered 1998-99. Bruce Dorsey.

5b. The United States from 1877 to 1945.

A survey of American society, culture and politics from the Compromise of 1877 to the Japanese Internment. Primary sources, literature, song, and historical monographs will help students explore and deepen their understanding of the history of the decades following the "second American revolution." Prohibition and the jazz age, women's suffrage and the Scottsboro boys, the Chicago World's Fair, and the seizure of Hawaii are some of the issues and events which will be addressed in this study of a maturing America.

Recommended for Teacher Certification.

Primary Distribution Course.

Fall semester. Allison Dorsey.

5c. The United States Since 1945

World War II, recovery, the Cold War, McCarthyism, domestic politics from Truman to Reagan, suburbanization, the New Left and the counter culture, Civil Rights, Black Power, Women's liberation, Watergate and the Imperial Presidency, Vietnam, and the rise of the Right.

Recommended for Teacher Certification.

Spring 1998. Murphy.

6. The Formation of the Islamic Near East.

An introduction to the history of the Near East from the seventh to the early fifteenth centuries.

This course may count toward a major in Medieval Studies.

Primary Distribution Course.

Not offered 1998-99. Bensch.

7a. History of the African American People, 1619-1865.

A survey of the social, political, and economic history of African Americans from the 1600s

History

to the Civil War. Focuses on slavery and resistance, the development of racism, the slave family (with special emphasis on women) and the cultural contributions of people of African descent.

This course may count toward a concentration in Black Studies.

Fall semester. Allison Dorsey.

7b. History of the African American People, 1865-Present.

A study of the social, political and economic history of African Americans from the period of Reconstruction through Clarence Thomas. The course focuses on community development in the immediate post-emancipation period through industrialization and Northern migration, the cultural outpouring of the Harlem Renaissance, and the development of Pan-Africanism. It explores the diversity of the Black experience in America as it addresses the "construction of race" through the World Wars and the Civil Rights movement.

This course may count toward a concentration in Black Studies.

Spring semester. Allison Dorsey.

8a. Africa in the Era of the Slave Trade, 1500-1850.

This survey course focuses on the development of the slave trade and its impact on Africa. This course may count toward a concentration in Black Studies.

Not offered 1998-99. Burke.

8b. Modern Africa, 1880 to Present.

A survey of modern African history from the establishment of colonial rule to the contemporary African scene. Issues covered include the "scramble for Africa," African resistance to conquest, missions and religious conversion, African culture under colonialism, African nationalism, and post-colonial African states and societies.

This course may count toward a concentration in Black Studies.

Fall semester. Burke.

9a. Chinese Civilization.

An historical introduction to various aspects of traditional Chinese civilization and culture—language, literature, philosophy, art, imperial and bureaucratic institutions. The impact of

Chinese civilization on other parts of Asia will be examined briefly.

This course may count toward a major in Asian Studies.

Primary Distribution Course.

Spring semester. Li.

***9b. Modern China.**

The course examines the tumultuous changes in China from the early nineteenth century until the present. Topics include the Opium War, the treaty ports and imperialism, the Taiping and Boxer rebellions, the reform movement, the Communist revolution, and the post-Maoist era. Emperors, scholar-officials, rebels, peasants, Maoist, and entrepreneurs are the figures in this tale.

This course may count toward a major in Asian Studies.

Fall semester. Li.

10B. First-Year Seminar: Radicals and Reformers in America.

Visions of social change from the American Revolution to the twentieth century. A look at individuals and movements that attempted to transform American institutions, cultural patterns, or social behavior. Previous topics have included: Revolution, slave resistance, abolitionists, feminists, sex reformers, labor radicals, socialists, anarchists, and activists for racial equality.

Fall semester. Bruce Dorsey.

10C. First-Year Seminar: Sex and Gender in Western Traditions.

This seminar traces changing constructions of gender in the creation of political and social norms from the fifth century BCE to the present.

This course may count toward a concentration in Women's Studies.

Not offered 1998-99. Judson.

10E. First-Year Seminar: Indigenous Cultures of Latin America: Identities, Ideologies, and Experience.

Explores key changes in the history of indigenous societies from the 16th-century Conquest to the present.

This course may count toward a concentration in Latin American Studies.

Not offered 1998-99. Gotkowitz.

10G. First-Year Seminar: Women, Family and the State in China.

This seminar will consider the roles of Chinese women and family both in traditional times and in the twentieth century, including elite and peasant society. Drawing from diverse sources (literary, philosophical, anthropological, etc.), the seminar will examine the ways in which culture and the state have defined these roles.

This course may count toward a major in Asian Studies and a concentration in Women's Studies.

Primary Distribution Course.

Not offered 1998-99. Li.

10I: First-Year Seminar: African American Women's History.

An examination of the uniqueness of the Black female experience in American society through the lens of race, class and sex. Primarily a historical treatment, the course includes literature and political commentary from each period of study. Writings will address the lives of Black women in slavery and Reconstruction, the era of lynching and migration, the Civil Rights struggle, and the development of contemporary Black feminism.

This course may count toward a concentration in Black Studies and Women's Studies.

Fall semester. Allison Dorsey.

10N. First-Year Seminar: The Production of History.

A group of war veterans protests an museum exhibit about the decision to drop the atomic bomb on Japan. The publication of national history standards ignites a major political controversy. Crowds in Haiti tear down a statue of Columbus and drag it to the harbor. Hobbyists re-enact Civil War battles. An Atlantic City casino adopts a "Wild West" theme. A popular subgenre of science-fiction novels explores "alternate histories" in which Hitler was never born or the Nazis won World War II. The film "Gone With the Wind" offers a powerful vision of a South that never was. In this course, we will examine these and similar public productions of history and historical knowledge and the complex dialogue between these visions of history and the professional work of academic

historians.

Spring semester. Burke.

***12. Chivalric Society: Knights, Ladies and Peasants.**

The emergence of a new knightly culture in the eleventh and twelfth centuries will be explored through the Peace of God, crusades, courtly love, lordship, and seigneurialism.

This course may count toward a major in Medieval Studies.

Not offered 1998-99. Bensch.

14. Friars, Heretics, and Female Mystics: Religious Turmoil in the Middle Ages.

An exploration of radical movements of Christian perfection, poverty, heresy, and female mystics that emerged in Europe from the eleventh to the fifteenth centuries.

This course may count toward a major in Medieval Studies.

Not offered 1998-99. Bensch.

15. Medieval Towns.

Were medieval towns the "seedbeds of modernity?" The course will explore the historical and ideological debates surrounding the question.

This course may count toward a major in Medieval Studies.

Not offered 1998-99. Bensch.

***16. Sex, Sin and Kin in Early Europe.**

Western kinship and sexual mores will be examined as they crystallized from Roman, Christian, Germanic, and Celtic traditions.

This course may count toward a major in Medieval Studies.

Not offered 1998-99. Bensch.

***17. The Mediterranean World in the Middle Ages.**

The course will examine the interface among Latin, Byzantine and Islamic civilizations in the medieval Mediterranean, with special emphasis on the period of Western ascendancy.

This course may count toward a major in Medieval Studies.

Not offered 1998-99. Bensch.

***19. The Italian Renaissance.**

The emergence of a new culture in the city-states of Italy between the fourteenth and six-

History

teenth centuries.

Not offered 1998-99. DuPlessis.

***20. Official and Popular Cultures in Early Modern Europe.**

Explorations of thought and practice in Western Europe between the later fifteenth and eighteenth centuries.

Not offered 1998-99. DuPlessis.

***22. Early Modern France and the Francophone New World.**

France and its North American and Caribbean colonies from the late fifteenth to the eighteenth centuries.

This course may count toward a concentration in Francophone Studies.

Optional Language Attachment: French.

Not offered 1998-99. DuPlessis.

***23. The Sacred and the Social in Early Modern Europe.**

Examination of changes in European religious beliefs and practices between the fifteenth and eighteenth centuries. Topics include theological and ecclesiological Reformations, women in religious movements, religious roots of rebellion, Inquisition and witch hunts, toleration and skepticism, Protestantism and capitalism, Christian confessionalism, and trends within Judaism.

Fall semester. DuPlessis.

24. Transitions to Capitalism.

Capitalism, now the globally dominant form of economic organization, was born in early modern Europe. This course analyzes the complex, protracted, uneven, and contested emergence of the new economic and social order. Among the topics considered are the end of feudalism, the agricultural and consumer "revolutions," capitalism and slavery, gender divisions of labor, proletarianization, work cultures and consciousness, labor protest, mercantilism and economic ideology, proto-industries and early factories, and theories of capitalism.

Spring semester. DuPlessis.

27. To the Barricades: The European Revolutionary Tradition.

An examination of Europe's revolutionary tradition starting with the French Revolution and ending with the Russian Revolution.

Not offered 1998-99. Weinberg and Judson.

28. Nations and Nationalism in Eastern Europe, 1848-1998.

This class traces the historical construction of nationalist identities, social movements and self-proclaimed nation-states out of multi-ethnic communities and multi-cultural Empires in Eastern Europe, from the revolutions of 1848 to the collapse of Soviet communism in 1989.

First-year students with permission of professor.

Optional language attachment: German.

Fall semester. Judson.

29. Sexuality and Society in Modern Europe.

Historical constructions of sex and sexual identities in Western societies since 1500.

This course may count toward a concentration in Women's Studies.

Not offered 1998-99. Judson.

30. France Since 1789: Revolution and Empire.

The political, social, cultural, and economic history of France and its global empire since the great revolution.

This course may count toward a concentration in Francophone Studies.

Optional language attachment: French.

Spring semester. Judson.

***31. Revolutionary Culture and Transformation in the USSR.**

(Cross-listed as Modern Languages and Literatures 31R)

Exploration of the ways in which after 1917 the new Soviet Republic attempted a revolutionary transformation of the entire culture as reflected in literature, film, music, and social organization.

Optional language attachment: Russian.

Spring semester. Weinberg and Bradley.

***35. From Emancipation to Extinction: European Jewry's Encounter with Modernity.**

This course focuses on the fate of European Jewry from the beginning of emancipation in the late eighteenth century to the Holocaust. Major themes include the process of emancipation, Jewish and non-Jewish responses to emancipation, religious reform, the transfor-

mation of Jewish identity, and Jewish reactions to modern anti-Semitism. Readings include primary documents, memoirs, and literature.

This course may count toward a concentration in German Studies.

Spring semester. Weinberg.

36. Modern Germany.

German politics, society and culture in the 19th and 20th centuries from the revolutions of 1848 to the recent attempts at re-unification.

This course may count toward a concentration in German Studies.

Optional Language Attachment: German.

Not offered 1998-99. Judson.

***37. History and Memory: Perspectives on the Holocaust.**

(Cross-listed as Modern Languages and Literatures 37G)

This course explores the Holocaust through an interdisciplinary approach that relies on primary sources, historical scholarship, memoirs, painting, and film.

This course may count toward a concentration in German Studies.

Fulfills distribution requirement for either Humanities or Social Sciences as designated at time of registration.

Not offered 1998-99. Faber and Weinberg.

***38. Russia in the Twentieth Century.**

This course focuses on the Bolshevik seizure of power, consolidation of communist rule, rise of Stalin, de-Stalinization, and the collapse of the Soviet Union.

Not offered 1998-99. Weinberg.

***41. The American Colonies.**

The history of the mainland British American colonies within an Atlantic colonial world from 1600 to 1760. Topics include contact and conflict between European and American Indian cultures, origins of slavery in America, economics and labor, popular religion (including Puritans, Quakers, evangelicals, and African American faiths), witchcraft, family and gender, and the political and military conflicts within the British empire on the eve of the American Revolution.

Spring semester. Bruce Dorsey.

***42. The American Revolution.**

Revolutionary developments in British North America between 1760 and 1800, including the imperial crisis, political mobilization, riots, religion, slavery, gender, and constitution-making.

Not offered 1998-99. Bruce Dorsey

45. Themes in U.S. History: The 1950s.

Post war America, suburbanization, rock 'n roll, baby boom, the revival of Hollywood, television, the Red Scare, cold war politics and domestic bliss.

Spring semester. Murphy.

***46. The Coming of the Civil War.**

Themes include social change on the eve of the Civil War, the conflict over free and slave labor, and slavery and the building of an African-American culture. Other topics include the West, Indian removal, manifest destiny, and families and gender in both the North and South.

Fall semester. Bruce Dorsey.

48. Murder in a Mill Town: A Window on Social Change During the Early Republic.

Topics in the social and cultural history of America between the American Revolution and the Civil War, utilizing primary sources from an 1833 murder trial.

Not offered 1998-99. Bruce Dorsey.

***49. Race and Foreign Affairs.**

A history of U.S. foreign affairs with attention paid to the origins of racialism and the impact of expansionism on various ethnic and racial groups.

This course may count toward a concentration in Public Policy.

Not offered 1998-99. Murphy.

***50. The Making of the American Working Class.**

A colloquium on the history of the industrial revolution in America.

This course may count toward a concentration in Public Policy.

Not offered 1998-99. Murphy.

52. History of Manhood in America, 1750-1920.

Examines the meanings of manhood and the various constructions of masculine identity in

History

America between the 18th and 20th centuries. The negative images (opposites) against which manhood was constructed, such as womanhood, boyhood, dependency, slavery, and racial and class difference, will be examined. Topics include politics, work, family, sexuality, race, war and violence, drinking, sports, and the myth of the self-made man.

This course may count toward a concentration in Women's Studies.

Spring semester. Bruce Dorsey.

***53. Topics in African American Women's History.**

Designed to facilitate an intensive study of the central themes in the lives of black women from 1700 to the present. Alternating topics include: labor, political activism, literature, and sexuality.

This course may count toward a concentration in Black Studies and Women's Studies.

Not offered 1998-99. Allison Dorsey.

54. Women, Society and Politics.

Women in American society from the colonial period to the present, with emphasis on the changing nature of work and the separation of spheres, the rise of feminism, and the resistance to women's rights.

This course may count toward a concentration in Women's Studies.

Spring semester. Murphy.

55. The American West, 1830 - 1950.

This course begins with the forced removal of the Cherokee and traces the development of an "American" culture between the Mississippi and the Pacific Ocean.

Not offered 1998-99. Allison Dorsey.

59. The Mexican Revolution: Origins, Course, and Legacies.

Examines the origins, course, and consequences of one of Latin America's most important historical events. Commencing with an in-depth consideration of 19th-century Mexican society, the course explores a variety of topics including capitalist modernization and rural unrest, Zapatismo and Villismo, U.S. intervention and revolutionary nationalism, agrarian reform and popular culture, the consolidation of the revolutionary state, and the significance of the revolution for contemporary

Mexico.

This course may count toward a concentration in Latin American Studies.

Fall semester. Gotkowitz.

***60. Cultural Constructions of Africa: Images, Inventions and Ideologies.**

This course will examine the history of the concept of Africa, particularly how African societies and African peoples have been variously objects of admiration, imitation, hatred, misunderstanding, or exploitation.

No prerequisites.

The course may count toward a concentration in Black Studies.

Not offered 1998-99. Burke.

***62. Health, Medicine and the Body in Modern Africa.**

This course examines the history of African practices and ideas of healing in the nineteenth and twentieth centuries and their encounter with European medical institutions in the colonial and post-colonial eras.

Not offered 1998-99. Burke.

***63. History of Southern Africa.**

A detailed and in-depth examination of the history of one of Africa's most important regions, this course focuses particularly, though not exclusively, on the nation of South Africa. Using primary documents, films, novels, and historical scholarship, participants will examine topics like the settlement of Cape Town, the growth of the Zulu Empire under Shaka, the making of colonial societies in the region, the rise and fall of apartheid, and the life and times of Nelson Mandela.

The course may count toward a concentration in Black Studies.

Fall semester. Burke.

64. Indian Communities and Nation-States in Modern Latin America.

Indian-state relations from the Tupac Amaru rebellion to the Zapatista uprising.

This course may count toward a concentration in Latin American Studies.

Not offered 1998-99. Gotkowitz.

65. Introduction to African Studies.

(Cross-listed as Political Science 7)

An historically oriented introduction to

African societies, cultures, and political economies that offers perspectives on different reconstructions of African's pre-colonial/colonial past. We also discuss the post-colonial present, exploring socioeconomic transformations, continuities, as well as struggles over authority, gender and access to resources. The course, simultaneously offered at Haverford, Bryn Mawr, Swarthmore, and the University of Pennsylvania, provides an entry point for the study of Africa in various disciplines linked in the African Studies Consortium. In field trips, students will be introduced to the resources of the Consortium: the University Museum at Penn, African Studies on the Web and the Consortium home page, the African art collection at Bryn Mawr, and the Africana collection at the four libraries.

Fall semester. Glickman and Miescher.

***66. Topics in Latin American History.**

Colloquium on specific topics in Latin American history with a strong research component.

This course may count toward a concentration in Latin American Studies.

Optional Language Attachment: Spanish.

Not offered 1998-99. Gotkowitz.

67. Race in Latin America.

Explores how scholars and historical actors have conceptualized race in Latin America from the late 18th to the 20th centuries. Topics include racial ideology and discrimination, the relationship between race and class, race, gender, and national identity, struggles for social and political equality, race and everyday life under colonialism and imperialism. Examples drawn from throughout Latin America including the Caribbean and Brazil.

This course may count toward a concentration in Latin American Studies.

Spring semester. Gotkowitz.

69. Debates in African Studies.

An advanced course which examines current debates about African societies and debates about the study of Africa from a variety of disciplinary perspectives, particularly history, art history, anthropology, literary studies and political science. Topics to be examined include controversies over Afrocentrism, the place of 'area studies' in the academy, civil society and

democratic practice in contemporary Africa and the public sphere in colonial Africa.

This course is sponsored by the cooperative Africa Consortium between Swarthmore, Bryn Mawr, Haverford and the University of Pennsylvania and will include students from all four campuses.

Spring semester. Burke.

72. Japanese Civilization and Culture.

(Cross-listed as Art History 31)

An interdisciplinary introduction to traditional Japan, from its origins through the nineteenth century. Japanese political and social history will be viewed together with its visual and material culture. Topics covered include Japan's prehistoric origins, state formation under the influence of Chinese culture, the evolution of the imperial system and samurai class, early contacts with the West, and the distinctive urban culture of the merchant class.

No prerequisite; open to freshmen. Counts as a foundation course for a major or minor in Asian Studies; fulfills distribution for Social Sciences.

Fall semester. Li and Graybill.

***75. Modern Japan.**

The transformation of Japan from a feudal society to a modern nation-state. Topics include the Meiji restoration, the Japanese empire, militarism and war, and postwar society.

This course may count toward a major in Asian Studies.

Not offered 1998-99. Li.

***77. Orientalism East and West**

From Marco Polo to Madame Butterfly, from Pearl Buck to Fu Manchu, Westerners have created images of the "Orient" that have ranged from fantastic to demonic. Using images mainly from China to Japan, and occasionally from India and the Middle East, this course will consider their contexts, their authors, and the political, ideological and other purposes that they served. Materials will include literature, memoirs, wartime and cold war propaganda, and mass media. This course will also consider Asian views of the West since the nineteenth century.

Prerequisite: An introductory history course or permission of the instructor.

This course may count toward a major in Asian

History

Studies.

Spring semester. Li.

88. The Social History of Consumption.

This course examines the role of consumption and commodities in the making of the modern world, focusing largely but not exclusively on the history of European and North American societies.

Not offered 1998-99. Burke.

89. Gender, Sexuality and Colonialism.

Drawing upon the comparative history of Asian, African, Caribbean, Latin American, and Native American societies since 1500, this course will examine the ways that colonial rulers and colonial societies envisioned and experienced gender.

This course may count toward a concentration in Women's Studies.

Not offered 1998-99. Burke.

91. Senior Research Seminar.

Students are expected to write a 25 page paper based on primary and secondary sources.

Required of all course majors.

Not offered 1998-99. Staff

92. Thesis.

A single credit thesis, available to all majors in their senior year, on a topic approved by the Department. Students may not register for History 92 Credit/No Credit.

93. Directed Reading.

Individual or group study in fields of special interest to the student not dealt with in the regular course offerings. The consent of the department's Chairman and of the instructor is required. History 93 may be taken for one-half credit as History 93A.

SEMINARS

112. The Barbarian North.

The seminar is devoted to the transformation of the early Germanic and Celtic peoples during the first millennium of the Christian era. This course may count toward a major in Medieval Studies.

Not offered 1998-99. Bensch.

116. The Italian Renaissance.

Topics in the development of the Renaissance state, society and culture in Italian communes between the fourteenth and sixteenth centuries. Issues addressed include forms of political organization, varieties of humanism, political theory, changing historical consciousness, art and society. Much attention is devoted to historiography.

Fall semester. DuPlessis.

117. State and Society in Early Modern Europe.

Comparative analysis of state formation, economic development, and social change in continental Europe and England during the sixteenth and seventeenth centuries.

Not offered 1998-99. DuPlessis.

122. Revolutionary Europe, 1750 to 1871.

Selected topics in the social, economic and political history of Europe from the French Revolution to the Paris Commune. This seminar may count toward concentrations in German Studies and Francophone Studies.

Not offered 1998-99. Weinberg.

124. Europeans and Others Since 1750.

The rise of European nationalism, imperialism and racism examined comparatively in France, Germany, Great Britain, and the Habsburg Monarchy and their colonial empires in the period 1750-1994.

This course may count toward concentrations in German Studies and Francophone Studies.

Not offered 1998-99. Judson.

125. Fascist Europe.

This seminar studies European fascism in the context of societies torn by world war and economic depression. The primary focus will be on fascist movements, regimes and cultural policy in Italy and Germany, with a secondary comparative focus on Hungarian, Rumanian and French varieties of fascism.

This seminar may count toward a concentration in German Studies.

Spring semester. Judson.

128. Russian Empire in the 19th and 20th Centuries.

Focus on the social, economic, political, and intellectual forces leading to the collapse of the

autocracy and the rise of Stalin. Particular attention is devoted to the dilemmas of change and reform, and the problematic relationship between state and society.

Fall semester. Weinberg.

134. American Diplomatic History.

The emergence of the United States as a world power, with emphasis on expansionism, national interest and global mission.

Not offered 1998-99. Murphy.

135. American Social History.

Everyday life in America from the colonial era to the present. Topics include conflicts between Native American and European American cultures, slavery and its aftermath, constructions of race, and industrialization and changing patterns of work. Other themes include religious revivalism and reform, working-class culture, gender, family and sexuality, immigration, urbanization and suburbanization, and popular culture.

Spring semester. Bruce Dorsey.

137. African American History.

An in depth social history of people of African descent in the United States. Special attention is paid to the experience of slavery, black political activism, the black intellectual tradition and the development of a contemporary black identity.

This seminar may count toward a concentration in Black Studies.

Spring semester. Allison Dorsey.

140. The Colonial Encounter in Africa.

Focus on the social, economic, and cultural dimensions of the colonial era in modern Africa. Topics discussed include the complicated construction of the colonial state, migrancy and colonial labor systems, struggles over religious and cultural practices, the making of African modernities, gender and sexuality, and the contemporary legacy of colonial rule.

This course may count towards a concentration in Black Studies.

Fall semester. Burke.

***144. Modern China.**

China from the late eighteenth century to the present. Topics include: social and intellectual currents in the late imperial era; Western imperialism; rebellion, reform, and revolution;

political and social transformation in the People's Republic of China.

This course may count toward a major in Asian Studies.

Spring semester. Li.

148. Race, Class and Nationalism in Modern Latin America.

Explores the conflictive process of nation-making in multi-racial societies from the early 19th century wars of independence through the revolutionary upheavals of the 20th century. Takes a comparative approach focusing on the role of diverse actors in struggles over citizenship and nationhood in neo-colonial contexts.

This course may count toward a concentration in Latin American Studies.

Spring semester. Gotkowitz.

180. Honors Thesis.

For students writing an Honors Thesis.

1998-99. Staff.

199. Senior Honors Study.

One credit for History Majors and ½ credit for History Minors.

1998-99. Staff.

Interpretation Theory

- Coordinator: **ROBIN WAGNER-PACIFICI** (Sociology/Anthropology)
MARK WALLACE (Religion)
- Committee: **Jean-Vincent Blanchard** (Modern Languages and Literatures)²
Timothy Burke (History)
Michael Cothren (Art)
Kenneth Gergen (Psychology)
Bruce Grant (Sociology/Anthropology)
Cynthia Halpern (Political Science)
Carolyn Lesjak (English Literature)
Tamsin Lorraine (Philosophy)
Christopher Pavsek (Modern Languages and Literatures)
Robin Wagner-Pacifici (Sociology/Anthropology)
Mark Wallace (Religion)
Philip Weinstein (English Literature)³
Patricia White (English Literature)
-

1 Absent on leave, fall semester, 1998.

2 Absent on leave, spring semester, 1999.

3 Absent on leave, 1998-99.

Propositions about persons, texts, works of art, or nature inevitably require acts of interpretation. All fields of knowledge, then, are wedded to interpretive processes. A program in Interpretation Theory provides students with the opportunity to explore processes of interpretation, inquiring into their nature across the disciplines, forces impinging upon interpretive acts, and the results of varying forms of interpretation both within knowledge generating communities and the culture more generally.

Students in any major may add either a concentration or a focus for External Examination in Interpretation Theory to their program by fulfilling the requirements stated below. Students should submit their proposed program to the coordinator of the concentration. All program proposals must be approved by the Interpretation Theory Committee.

CONCENTRATION REQUIREMENTS

Each concentration must include a minimum of six credits from the courses and seminars listed below. In order to provide necessary historical perspective, and in order to guarantee exposure to a sufficient variety of interpretive

theories and practices, concentrators will normally include at least one course from each of the two groups of courses that serve to introduce the concentration. One such group (identified by single asterisk*) is comprised of courses that attend significantly to the historical development of interpretive practices. The other group (identified by double asterisks**) is comprised of courses that attend significantly to the range of interpretive strategies currently operative within several disciplines. Concentrators will choose these two recommended courses from different departments, and they will normally complete them by the end of the junior year. Three of the remaining four courses in the concentration are elective, but they must draw on at least one further department. As part of the six course requirement, all concentrators will take a capstone seminar, IT 91, team taught by members of different departments, in their senior year.

Currently offered courses relevant to the concentration include:

Int Theory 91. Capstone Seminar: The Optical Unconscious.

"The camera introduces us to unconscious optics," Walter Benjamin wrote, remarking on the intensely visual experience of industrial

modernity and suggesting its attendant reorganization of subjectivity. New technologies of vision have proliferated in the twentieth century, provoking interdisciplinary interest in visuality that questions the privileged relationship between vision and truth. Readings in philosophy, anthropology, semiotics, film and cultural theory.

Spring semester. Grant and White.

- Art Hist 1. Critical Study in the Visual Arts.**
- Art Hist 29. Film: Form and Signification.**
- Art Hist 61. Everyday Things.**
- Art Hist 98. Senior Workshop.**
- Biology 6. History and Critique of Biology.**
- Classics 36. Classical Mythology.**
- English 24. */** Inscriptions of the Feminine in 16th and 17th Century England.**
- English 73A. ** Mapping the Modern.**
- English 80. ** Critical and Cultural Theory.**
- English 81. ** Theory of the Novel.**
- English 83. Feminist Theory.**
- English 84. ** Lesbian Representation.**
- English 85. ** "Whiteness" and Racial Differences.**
- English 86. Postcolonial Literature and Theory.**
- English 87. ** American Narrative Cinema.**
- English 88. ** American Attractions: Leisure, Technology and National Identity.**
- English 89. Women and Popular Culture.**
- English 91. ** Feminist Film and Media Studies.**
- English 92. ** Film Theory and Culture.**
- English 120. ** Critical and Cultural Theory.**
- History 10N. The Production of History.**
- History 29. Sexuality and Society in Modern Europe.**
- History 60. * Cultural Constructions of Africa.**
- Int Theory 90. Directed Reading.**
- Int Theory 91. Capstone Seminar.**
- Int Theory 92. Thesis.**
- Mod Lang 40F. French Theater and Cultural Studies.**
- Mod Lang 61. Writing and Reading Across Gender Lines.**
- Mod Lang 62F. Le Romantisme.**
- Mod Lang 65G. Marxism.**
- Mod Lang 71F. ** French Critical Discourse: from Barthes to Baudrillard.**
- Mod Lang 76. Femmes écrivains.**
- Mod Lang 102. Baroque Culture and Literature.**
- Mod Lang 109. Rise of the Modern German Novel.**
- Phil 17. * Aesthetics.**
- Phil 19. Philosophy of Social Sciences.**
- Phil 26. Language and Meaning.**
- Phil 45. * Philosophical Approaches to the Question of Woman.**
- Phil. 79. Poststructuralism.**
- Phil 106. * Aesthetics.**
- Phil 116. Language and Meaning.**
- Phil 139. * Phenomenology, Existentialism, and PostStructuralism.**
- Phil 145. Feminist Theory Seminar.**
- Poli Sci 12. * Modern Political Theory.**
- Poli Sci 13. * Feminist Political Theory.**
- Poli Sci 101. * Political Theory: Modern.**
- Psych 37. ** Concepts of the Person.**
- Psych 44. Psychology and Women.**
- Psych 48. Technology, Self and Society.**
- Psych 68. ** Reading Culture.**
- Psych 87. Psychology, Biology and Economic Rationality.**
- Psych 106. * Personality Theory and Interpretation.**
- Religion 5. Problems of Religious Thought.**
-

Interpretation Theory

Religion 15B.* Philosophy of Religion.

Religion 18B. Modern Jewish Thought and Literature.

Religion 112. Postmodern Religious Thought.**

Soc-Anthro 2. Nations and Nationalism.

Soc-Anthro 4. Symbols and Society.**

Soc-Anthro 24. Discourse Analysis.**

Soc-Anthro 52. Mapping the Modern.**

Soc-Anthro 57.* History of the Culture Concept.

Soc-Anthro 58. Cultural Representations.**

Soc-Anthro 77. Colloquium: Art and Society.

Soc-Anthro 101. Critical Modern Social Theory.

Soc-Anthro 102. History and Myth.

Soc-Anthro 114. Political Sociology.

Other courses may be considered upon petition to the Interpretation Studies Committee. These may include relevant courses offered at Bryn Mawr, Haverford, and the University of Pennsylvania.

Latin American Studies

Coordinator: **Miguel Díaz-Barriga** (Sociology/Anthropology)
Committee: **Joan Friedman** (Modern Languages and Literatures)
Laura Gotkowitz (History)
John Hassett (Modern Languages and Literatures)
Hugh Lacey (Philosophy)
Braulio Muñoz (Sociology/Anthropology)
Steven Piker (Sociology/Anthropology)
Aurora Camacho de Schmidt (Modern Languages and Literatures)
Kenneth Sharpe (Political Science)

CONCENTRATION REQUIREMENTS

Students interested in Latin American Studies Concentration (LASC) must consult with the coordinator and members of the LASC committee before developing a proposal. The proposal should establish how the concentration relates to the overall program of undergraduate study in general, and to the departmental major in particular.

The requirements for the concentration include:

- 1) *Language*. LASC requires the successful completion of Spanish 4B or its equivalent. This requirement is waived for students who demonstrate competence in Spanish or Portuguese. In their junior year students will be expected to read texts in Spanish (or Portuguese) and attend classes in Spanish. Because of this, it is important for students to study language as early as possible in their undergraduate career.
- 2) *Study abroad*. All students are required to spend a minimum of one semester abroad in a program approved by both LASC and the Office of Foreign Study. Only in exceptional cases with the support of a faculty member and the approval of LASC Committee will a semester internship or a community service project in Latin America fulfill the concentration requirement. Study abroad must be pursued in Spanish or Portuguese.
- 3) *Mini-course*. Concentrators are required to participate in a mini-course during their senior year with a visiting Latin American scholar. The topic of each mini-course will depend upon the field of expertise and research of the visiting scholar. The course involves four sessions of lecture followed by discussion, and the

language of instruction will be Spanish (or Portuguese with Spanish translation).

4) *Courses*. All students must take a minimum of five credits in Latin American Studies which may include seminars and courses taught at the college, or courses taken abroad in an approved program. At least one credit should be taken, either at Swarthmore or abroad, in each of the concentration's three areas: Latin American Politics and History, Latin American Literature, and Latin American Societies and Cultures. At least one credit must be taken at Swarthmore in each of two different areas:

A. Latin American Politics and History

Hist. 4A: Latin America: The Colonial Era (Fall '98).

Hist. 59: The Mexican Revolution: Origins, Course and Legacies (Fall '98).

Hist. 4B: Latin America: The Modern Era (Spring '99).

Hist. 67: Race in Latin America (Spring '99).

Hist. 148: (Honors Seminar) Race, Class, and Nationalism in Modern Latin America (Spring '99).

Poli.Sci. 57: Latin American Politics (Spring '99).

Poli.Sci. 109: (Honors Seminar) Comparative Politics: Latin America (Spring '99).

B. Latin American Literature

Span. 80: La narrativa chilena desde el golpe militar (Fall '98).

Latin American Studies

LITR 63SA: La Frontera: The Many Voices of the U.S.-Mexico Border (Fall '98).

Span. 13: Introducción a la literatura hispanoamericana (Spring '99).

Span. 78: La novela social de México (Spring '99).

Span. 108: (Seminar) La narrativa de Isabel Allende: la escritura como sobrevivencia (Spring '99).

C. Latin American Societies and Culture

S & A 35: Latin American Social Movements (Spring '99).

Rel. 107: (Seminar) Liberation Theology (Spring '99).

5) *Other courses:*

Hist. 66: Topics in Latin American History: Revolutionary Mexico.

Hist. 10E: First-Year Seminar: Indigenous Cultures of the Andes.

Hist. 64: Indian Communities and Nation States in Modern Latin America.

Span. 77: La novela hispanoamericana del siglo XX.

Span. 78: La novela social de México.

Span. 79: El cuento hispanoamericano.

Span. 82: La mujer mirando al hombre: escritoras hispanoamericanas del siglo XX.

Span. 83: El tirano latinoamericano en la literatura.

Span. 85: Narrativa hispánica contemporánea de los Estados Unidos.

Span. 101: La novela hispanoamericana del siglo XX.

Span. 104: La narrativa de Mario Vargas Llosa.

Span. 106: Visiones narrativas de Carlos Fuentes.

Lit 60SA: Spanish American Society Through Its Novel.

Lit 61SA: Women's Testimonial Literature of Latin America.

Lit 65SA: Indigenous Peoples in Latin America.

Lit 66SA: Latin American Poetry of Resistance.

Phil. 58: Non-Violence and Violence in Latin America.

S & A 12: Introduction to Latinos in the United States.

S & A 31: Latin American Society and Culture.

S & A 31: Latin American Urbanization.

S & A 33: Indigenous Resistance and Revolt in Latin America.

S & A 34: Ecology, Peace, and Development in El Salvador.

S & A 37: Spanish Society Through Its Novel.

REQUIREMENTS OF THE HONORS MINOR

To complete an Honors Minor in Latin American Studies students must have completed all requirements for the concentration. From within the concentration's offerings they may select for outside examination a seminar included in the Latin American Studies Concentration listing provided that this offering is not an offering within their major department. The one-half credit senior honor requirement consists of a set of additional readings assigned by the seminar professor on which students will also be examined.

Linguistics

DONNA JO NAPOLI, Professor and Program Director³

THEODORE FERNALD, Assistant Professor and Acting Program Director

KARI SWINGLE, Instructor

STEPHANIE STRASSEL, Administrative Assistant, Instructor, and Laboratory Assistant

Committee: **Carr Everbach** (Engineering)

Sibelan Forrester (Modern Languages and Literatures)

Charles Kelemen (Computer Science)

Steven Piker (Sociology and Anthropology)

Craig Williamson (English Literature)

³ Absent on leave, 1998-1999.

The discipline: Linguistics is the study of language. On the most general level it deals with the internal structure of language, the history of the development of language, the information language can give us about the human mind, and the roles language plays in influencing the entire spectrum of human activity.

The relevance of linguistics to the disciplines of psychology, philosophy, sociology, anthropology, and language study has been recognized for a long time. But recently a knowledge of linguistics has become important to a much wider range of activities in today's world. It is a basic tool in artificial intelligence. It is increasingly a valuable tool in literary analysis. It is fundamental to an understanding of communication skills. And, since the very nature of modern linguistic inquiry is to build arguments for particular analyses, the study of linguistics gives the student finely honed argumentation skills, which stand in good stead in careers in law, business, and any other profession where such skills are crucial.

Linguistics is at once a discipline in itself and the proper forum for interdisciplinary work of any number of types. This is because language is both the principal medium that human beings use to communicate with each other and the bond that links people together and binds them to their culture. The study of language is the study of the very fabric of our humanity.

There are two Special Majors in the course program administered through the Linguistics Program in collaboration with the departments mentioned below. These are the Special

Majors: Linguistics (LING); Linguistics and Languages (LL).

There is one honors major administered through the Linguistics Program: Linguistics.

All LING and LL majors (honors or course) must take one course or seminar from each of the following three lists:

(a) sounds: Ling. 45, 52

(b) forms: Ling. 50

(c) meanings: Ling. 26, 40, 116

All LING and LL majors (honors or course) will be expected to take Ling 6 or Ling 60. If the student speaks a non-Indo-European language, this requirement is waived.

Students are encouraged to study abroad, and all departmentally approved courses taken in linguistics abroad can be used to fulfill requirements for the major or minor.

LINGUISTICS

This special major consists of 8 credits in Linguistics, where the student may choose to count Linguistics 1 as part of the major or not. Special majors must also pass either the Language Requirement or the Cognate Requirement. If the student is a double major, this requirement is waived.

Language Requirement: Advanced competence in at least one foreign language.

This can be demonstrated by successfully completing Latin 13, Greek 12, or above, or a sem-

Linguistics

inar in the Dept. of Classics, or a course numbered 11 or above in the Dept. of Modern Languages and Literatures, or through an exam. If the language used to fulfill this requirement is not presently taught by either our Department of Modern Languages and Literatures or our Department of Classics, this exam will be administered by the Linguistics Program. Any natural language, ancient or modern, may be used to fulfill this requirement.

Cognate Requirement: At least three credits in a cognate area to linguistics. (Note: All courses in the chosen cognate that appear on the list below will count as part of the credits in the major in the determination of whether or not a student has adhered to the "20-course-rule.")

The cognate areas are defined below. The credits must be gained by taking classes from a single area listed below, except in options 10 and 11. The numbers of the approved courses from the named department are listed after the department name. Courses not listed here will not be accepted for the cognate requirement unless they are cross-listed with Linguistics.

- (1) Computer Science: 46, 63, 75
- (2) Education: 18, 21, 42, 54, 64, 66, 68
- (3) Engineering: 2, 71, 78
- (4) English Literature: A student must take 14, History of the English Language (this was formerly 23, Old English/ History of the Language), a course in critical theory (marked with ** in the catalogue), and any advanced course appropriate to the student's linguistics interests (chosen under consultation with linguistics advisor and instructor of course)
- (5) Mathematics/Statistics: 9, 23 or 53 (but not both), 41, 46, 61, 65 or 72 (but not both)
- (6) Music and Dance: Music 11, 12, 13, 14, 15, 16, 19; Dance 1, 2, 10, 11, 12, 13, 14, 24, 36, 37, 70, 71, and at most one technique class
- (7) Philosophy: 12, 26, 40, 86, 116
- (8) Psychology: 28, 32, 33, 34, 39, 42, 43, 49, 86, 92, 133, 134
- (9) Sociology/Anthropology: 10, 18, 19, 24, 104
- (10) Formal systems: A student may choose to do a cognate in Formal Systems, tak-

ing courses from the approved lists for Computer Science, Engineering, and Mathematics/Statistics.

- (11) Pre-med: Students interested in language pathologies may, under consultation with the department, use the pre-medical science requirements as the cognate.

Majors will write a senior paper in Ling 100 in the fall of the senior year.

LINGUISTICS AND LANGUAGES

The student may combine the study of linguistics with the serious study of two foreign languages. The languages can be modern or ancient. For this major, precisely 6 credits in linguistics and 3 credits in each of the two languages, for a total of 12 credits, are required.

Linguistics 50 is required.

All students will be expected to take Ling 6 or Ling 60. If the student speaks a non-Indo-European language, this requirement is waived.

For a modern language taught by the Dept. of Modern Languages and Literatures, there must be one Composition and Diction course (numbered 4 or above) and two other courses (numbered 11 or above) or a seminar.

For a classical language taught by the Dept. of Classics, there must be one intermediate-level course (numbered 11-14) and one seminar.

Some work in each foreign language included in the major must be done in the student's junior or senior year.

If one or both of the foreign languages is modern, the student must study abroad for at least one semester in an area appropriate for one of the foreign languages.

Students will write a senior paper in Ling 100 in the fall of the senior year.

HONORS MAJOR: LINGUISTICS

Majors must pass the requirement in sounds, forms, and meanings, and in structure of a non-Indo-European language; and must write a senior thesis.

The thesis and two research papers will consti-

tute the portfolio for honors.

The thesis may be on any topic in linguistics. It need not be related to course work. It will be written in fall of the senior year in Ling 195. Work may be collaborative with at most one other student at the discretion of the faculty. The "examination" will consist of a one hour discussion with the external reader.

The research papers will be on topics selected from a list prepared by the external readers and will be on core areas of linguistics and directly related to course work the student has taken. The areas will be selected from any combination or blend of the following: phonetics, phonology, morphology, syntax, semantics, historical and comparative.

The student will prepare for these research papers by taking at least four credits of course work (two credits in each of the research paper areas). The students will work independently on these papers, without collaboration and without faculty guidance in spring of the senior year in Ling 199 for one credit. The "examination" will consist of a thirty-minute discussion with the reader for each paper.

The Linguistics Program puts no restrictions on the minors that can be combined with this major.

HONORS MINOR

Students who do a course major in Linguistics may count Linguistics for the minor in the Honors Program. In that case, the portfolio for honors will consist of a two credit thesis written in fall of the senior year in Ling 195. The student will also take Ling 199 for one-half credit in spring of the senior year.

Students who do not do a course major in Linguistics have different requirements for the minor. They must pass the requirement in sounds, forms, or meanings and must take a minimum of 3 credits in Linguistics. A single research paper will constitute the portfolio for honors. This research paper will have the same topics and guidelines for preparation and examination as the research papers described immediately above for the majors. All minors must take Ling 199 in the spring of the senior year for one-half credit.

The Linguistics Program puts no restrictions

on the majors that can be combined with this minor.

COURSES

1. Introduction to Language and Linguistics.

Introduction to the study and analysis of human language, including sound systems, lexical systems, the formation of phrases and sentences, and meaning, both in modern and ancient languages and with respect to how languages change over time. Other topics that may be covered include first language acquisition, sign languages, poetic metrics, the relation between language and the brain, and sociological effects on language.

Primary distribution course.

Fall. Fernald.

2. Exploring Acoustics

(See Engineering 2.)

Everbach.

5. American Sign Language.

This is an intensive language course in the manual/visual language of the Deaf community in the United States.

No prerequisites.

Check with the department office as to when it will be offered.

6. Structure of American Sign Language.

In this course we look at the linguistic structures of American Sign Language.

Prerequisites: at least two out of Ling I, 40, 43, 45, and 50.

Next offered Spring 2000. Napoli.

14. Old English/History of the Language.

(See English 14.)

Williamson.

16. History of the Russian Language.

(See Russian 16.)

Forrester.

20. History of the French Language.

Occasionally.

Linguistics

24. Discourse Analysis.

(See Sociology/Anthropology 24.)
Wagner-Pacifici.

25. Language, Culture, and Society.

An investigation of the influence of cultural context and social variables on verbal communication. Topics covered include dialectal varieties, creoles, language and gender, and language and education.

(Cross-listed as Sociology/Anthropology 79.)
Prerequisite: At least one linguistics course.
Primary distribution course.
Spring. Strassel.

26. Language and Meaning.

(See Philosophy 26.)
Eldridge.

30. Languages of the World.

This is a course in the richness and variety of human languages. We consider languages from all over the world, focusing on cross-linguistic generalizations and variations to develop an appreciation of the intricate conceptual, logical and physiological resources that each language draws upon.

No prerequisites.
Primary distribution course.
Spring. Swingle.

33. Introduction to Classical Chinese.

(See Chinese 33.)
Berkowitz.

34. Psychology of Language.

(See Psychology 34.)
Dufour.

37. Languages of Africa.

A look at phonetics, phonology, morphology, syntax, and semantics across several language families. Bantu offers a point of comparison. Topics include clicks, tones, causatives, serial verbs, issues of language policy in Africa.

(Cross-listed as Sociology/Anthropology 37.
Counts for Black Studies.)
Occasionally.

40. Semantics.

In this course we look at a variety of ways in which linguists, philosophers, and psychologists have approached meaning in language.

We address truth-functional semantics, lexical semantics, speech act theory, pragmatics, and discourse structure. What this adds up to is an examination of the meaning of words, phrases, and sentences in isolation and in context. (Cross-listed as Philosophy 40.)

Primary distribution course.
Spring. Fernald.

43. Morphology and the Lexicon.

This course looks at word formation and the meaningful ways in which different words in the lexicon are related to one another in the world's languages.

Prerequisite: One of Ling. 1, 40, 45, or 50.
Fall. Swingle.

45. Phonetics and Phonology.

Phonology is the study of the sounds of language and the rules that govern the interaction of sounds when they are put together in words and phrases.

Primary distribution course.
Fall. Swingle.

46. Language Learning and Bilingualism.

(See Psychology 43.)
Dufour.

49. Brain, Language and Cognition.

(See Psychology 49.)
Dufour.

50. Syntax.

We study the principles that govern how words go together to make phrases and sentences in natural language. Much time is spent on learning argumentation skills. The linguistic skills gained in this course are applicable to the study of any natural language, modern or ancient. The argumentation skills gained in this course are applicable to law and business, as well as academic fields.

Primary distribution course. This course also falls in the third category of courses approved as counting toward a computer science concentration.

Fall. Swingle.

51. Romance Syntax.

A comparative study of the syntax of modern

Romance languages, including Spanish, French, Italian, Portuguese, and Romanian.

Prerequisites: Linguistics 50 and a working knowledge of a Romance language or of Latin.

Occasionally. Napoli.

52. Historical and Comparative Linguistics.

We study the reconstruction of prehistoric linguistic stages, the establishment of language families and their interrelationships, and the examination of processes of linguistic change. For spring 1998, the second half of the semester will be devoted to reconstructing proto-Bantu. This course in this semester counts toward the concentration in Black Studies.

Prerequisite: Ling. 1 or Ling. 45 or permission of the instructor.

Next offered Spring 2000.

54. Oral and Written Language.

This course examines children's dialogue and its rendering in children's literature. Each student will pick an age group to study. There will be regular fiction writing assignments as well as research assignments. This course is for linguists and writers of children's fiction and anyone else who is strongly interested in child development or reading skills. (Cross-listed as Education 54.) (Studio course.)

Prerequisite: One of Ling. 1, 40, 45, or 50.

Next offered in Spring 2000. Napoli.

55. Writing Systems, Decipherment, and Cryptography.

The course is an introduction to the representation of natural language in a non-fundamental, more or less permanent form. We begin with a typology of the writing systems of the world. Then we will look at some of the great archaeological decipherments of the past (e.g. Egyptian hieroglyphic, Linear B, and Mesoamerican), and we will decipher some Maya texts together. Next we consider cryptography, focussing on the Navajo Code and the Enigma Machine of World War II, and we will finish up with modern encryption techniques for electronic transmissions.

Prerequisite: One of Linguistics 1, 30, or 45.

Next offered in Fall 1999. Fernald.

60. Structure of a Non-Indo-European Language.

An examination of the major phonological, morphological, syntactic, and semantic structures in a given non-Indo-European language. We will also consider the history of the language and its cultural context. The language for 1999 is Navajo.

Prerequisite: At least two out of Ling 1, 40, 43, 45, and 50.

Spring. Fernald.

70F. Caribbean and French Civilizations and Cultures.

(See French 70F.)

Rice-Maximin.

70R. Translation Workshop.

(See Literature 70R.)

Forrester.

80. Intermediate Syntax and Semantics.

This course is designed to provide theoretical and cross-linguistic breadth in topics involving the interaction of syntax and semantics. You will refine your skills of analysis and argumentation. Topics and languages considered will vary. This course is open to all students who have taken syntax or semantics.

Occasionally.

92. Research Practicum in Psycholinguistics.

(See Psychology 92.)

Dufour.

94. Research Project.

With the permission of the Program students may elect to pursue a research program.

Fall or spring. Staff.

95. Community Service Credit: Language and the Deaf.

This course offers credit for community service work. You may work with children at the Oral Program for the Hearing Impaired at the Kids' Place in Swarthmore. Prerequisites are Linguistics 45, the permission of the chairs of both Linguistics and Education, and the agreement of a faculty member in Linguistics to mentor you through the project. You would be required to keep a daily or weekly journal of your experiences and to write a term paper (the essence of which would be

Linguistics

determined by you and the linguistics faculty member who mentors you in this).

Fall or spring. Fernald.

96. Community Service Credit: Literacy.

This course offers credit for community service work. You may work with children in Chester public schools on literacy. The prerequisites are Linguistics/Education 54, the permission of both Linguistics and Education, and the agreement of a faculty member in Linguistics to mentor you through the project. You will be required to keep a daily or weekly journal of your experiences and to write a term paper (the essence of which would be determined by you and the linguistics faculty member who mentors you in this.)

Fall or spring. Fernald.

100. Research Seminar.

All course majors in Linguistics and Linguistics and Languages must write their senior paper in this seminar. Only seniors are admitted. This seminar may be for one or two credits.

Fall. Fernald.

195. Senior Honors Thesis.

All honors majors in Linguistics and honors minors who are also course majors must write their thesis for two credits in the seminar.

Fall. Fernald.

199. Senior Honors Study.

All honors majors must write their two research papers for one credit in this course. All honors minors must take this course for one-half credit.

Spring. Fernald.

Prerequisite: Ling. 45.

Occasionally.

108/109. Seminar in Semantics/Syntax.

This will be an advanced course in model-theoretic, event semantics. We will work through a recent version of Montague's system of providing an explicit mapping from syntactic representations of sentences to logical representations and their interpretations. This course falls in the third category of courses approved as counting for a computer science concentration. One or two credits.

Prerequisite: Ling. 40.

Spring. Swingle.

116. Language and Meaning.

(See Philosophy 116.)

Eldridge.

134. Psycholinguistics Seminar.

(See Psychology 134.)

Dufour.

SEMINARS

104. Culture and Creativity.

(See Sociology/Anthropology 104.)

Piker.

105/106. Seminar in Phonology/ Morphology.

This seminar will consider recent developments in the theory of phonology and/or morphology. When it is in metrical phonology, a poetry workshop will be incorporated into the seminar. One or two credits.

Mathematics and Statistics

CHARLES M. GRINSTEAD, Professor

GUDMUND R. IVERSEN, Professor

EUGENE A. KLOTZ, Professor

STEPHEN B. MAURER, Professor

HELENE SHAPIRO, Professor

DON H. SHIMAMOTO, Associate Professor

JANET C. TALVACCHIA, Associate Professor and Chair

TODD A. DRUMM, Assistant Professor³

PHILIP J. EVERSON, Assistant Professor

THOMAS HUNTER, Assistant Professor³

AIMEE S.A. JOHNSON, Assistant Professor³

CHERYL P. GROOD, Visiting Assistant Professor

CHRISTOPHER M. HERALD, Visiting Assistant Professor

CHRISTOPHER TOWSE, Visiting Assistant Professor

GARIKAI CAMPBELL, Minority Scholar-in-Residence

JOYCE A. GLACKIN, Administrative Assistant

³ Absent on leave, 1998-99.

People study mathematics and statistics for several reasons—some like it, some need it as a tool, and some study it simply because they think they should. The Department of Mathematics and Statistics aims to meet varying needs—to offer a program that will enable students both to develop a firm foundation in pure mathematics and to see mathematical and statistical methods used to solve in a precise way problems arising in physical science, computer science, social science, and operations research. Mathematics and statistics have grown enormously in recent years, developing an increasing number of specialties and applications. All mathematical endeavor, however, is based upon logical argument, abstraction, and an analytical approach to problem solving. Ideally, the study of mathematical sciences develops the ability to reason logically from hypothesis to conclusion, to analyze and solve quantitative problems, and to express one's thoughts clearly and precisely. In addition, the Department hopes that studying mathematics will foster an appreciation for the beauty and power of its methods, abstract approach, and rigorous structure.

First Year Courses: Mathematics and statistics courses appropriate for incoming first-year students with normal high school preparation

include Stat 1 (Statistical Thinking), Stat 2 (Statistical Methods), Math 3 (Introduction to Mathematical Thinking), Math 5 (Calculus I), Math 5s (Calculus I Seminar), and Math 9 (Discrete Mathematics). In the second semester, Stat 1, Math 4 (Calculus Concepts), and Math 9 may be available, again requiring only normal high school preparation. Stat 1, Math 3, Math 4, Math 5s, and Math 9 are primary distribution courses. More advanced courses are available to first-year students as explained below. Students who would like to begin calculus (Math 4, 5, or 5s) but are not sure they are prepared should take the departmental calculus readiness exam when they arrive on campus. Entering students may place into certain higher level courses (the half-semester courses 6A, 6B, 6C or the semester courses 6s, 16, 16H, 18) by scoring sufficiently well on the departmental calculus placement exam, or by taking certain standardized exams (see below).

Placement Procedure: To gain entrance to any math course (but not to gain entrance to statistics courses), students *must take at least one of the exams mentioned below*. Students wishing to place beyond beginning calculus may take either the AP or IB (standardized) exams, or Swarthmore's *calculus placement exam*. Students wishing to take Math 3, 4, 5, 5s, or 9 at any

Mathematics and Statistics

time during their Swarthmore years, and who do not take any of the exams just mentioned, must take Swarthmore's calculus readiness exam. Even students who do take one of the standardized exams may be required to take the departmental exams as well. The calculus placement exam is sent to entering first-year students over the summer, along with detailed information about the rules for placement and credit. The calculus readiness exam is given *during first-year orientation only*.

Advanced Placement and Credit Policy: "Advanced placement" and "credit" mean different things. Placement allows students to skip material they have learned well already by starting at Swarthmore in more advanced courses. Credit confers placement as well but also is recorded on the student's Swarthmore transcript and counts towards the 32 credits needed for graduation.

The Swarthmore calculus placement exam is used for placement only, not credit. Credit is awarded on the basis of the AP and the IB exams, as follows:

- 1 credit (for Math 5) for a score of 4 on the AB or BC Advanced Placement (AP) Test of the College Board, or for a score of 5 on the Higher Level Mathematics Test of the International Baccalaureate (IB).

- 1.5 credits (for Math 5 and 6A) for a score of 5 on the AB or BC Tests or a score of 6 or 7 on the Higher Level IB.

Or, any entering student who places out of Math 5, 6A, or 6B may receive credit for the courses placed out of by passing the final exams in these courses with a grade of straight C or better. These exams must normally be taken during the student's first semester at Swarthmore, at the time when the final exam is given for the course. Students who wish to take these exams must arrange to do so with the Departmental Placement Coordinator. Advanced placement credit will be given to entering students only during their first semester at Swarthmore. Students who are eligible for advanced placement credit for a course but who take the course anyway will not receive the advanced placement credit.

First-year students seeking advanced placement and/or credit for *calculus taken at another college or university* must normally validate their work by taking the appropriate Swarthmore

examination, as described above. For work beyond calculus completed before entering Swarthmore, students should consult the Departmental Placement Coordinator to determine the Swarthmore course into which they should be placed. The Department will not normally award advanced placement credit for work above the Math 6 level, however.

Introductory Statistics: Students who do not know calculus can take Stat 1 or 2. Stat 1 is intended to show how statistics is used to help obtain an understanding of the world around us. Stat 2 is a more practical course for students who expect to use statistics in their own work. Students who know a semester of calculus should take Stat 2C instead of Stat 2. Both Stat 2 and 2C lead to Stat 27 on multivariate statistical analysis. Students with a strong background in mathematics can begin with the more theoretical Stat 53 and continue with the one-credit seminar Stat 111.

Requirements for a major in Mathematics: Students apply for a major in the middle of the second semester of the sophomore year. A prospective applicant should expect typically that, by the end of the sophomore year, he or she will have received credit for, or placement out of, at least four of the following five courses: Calculus I (Math 5 or 5s), Calculus II (Math 6A–6B or 6s), Discrete Mathematics (Math 9), Linear Algebra (Math 16 or 16H) and Several Variable Calculus (Math 18 or 18H). In any event, all majors must complete Math 16 and 18 by the end of the first semester of the junior year.

In addition, a candidate should have a grade point average in mathematics and statistics courses to date of at least C+. This should include at least one grade at the B level. In some cases, applicants may be deferred pending successful work in courses to be designated by the Department.

By graduation, a mathematics major must have at least ten credits in mathematics and statistics courses. At most five of the credits counted in the ten may be for courses numbered under 25. (Certain courses in this category are not to count toward the major. These are so indicated under the course listings in this catalogue.) Furthermore, every major is required to obtain credit for, or place out of, each of the following courses: Math 5 or 5s; Math 6A–6B or 6s; Math 16 or 16H; Math 18 or 18H; Math 47;

and Math 49. The two upper-level core courses, Math 47 (Introduction to Real Analysis) and Math 49 (Introduction to Modern Algebra), will be offered every fall semester. At least one of these two should be taken no later than the fall semester of the junior year. Finally, majors not in the Honors program must satisfy the departmental comprehensive requirement by passing Math 97, the Senior Conference. Progress of majors will be reviewed at the end of each semester. Students not making satisfactory progress may be dropped from the major.

Mathematics majors are urged to study in some depth a discipline that makes use of mathematics and to acquire some facility with the computer. Students bound for graduate work should obtain a reading knowledge of French, German, or Russian.

Special emphases: The above requirements allow room to choose an optional special emphasis within the Mathematics major. For instance:

A student may major in Mathematics with an *emphasis on statistics* by taking the following courses at the advanced level: a) the core analysis course (Math 47); b) Mathematical Statistics I (Stat 53) and possibly Mathematical Statistics II (Stat 111) for one or two credits; c) Probability (Math 105); d) Multivariate Statistics (Stat 27) or, perhaps, Econometrics (Econ 135); e) another mathematics course numbered 25 or above. Students are encouraged but not required to select the core algebra course (Math 49) if they choose this emphasis.

Students interested in *mathematics and computer science* should consider a Mathematics major with a Concentration in Computer Science, a Special Major in Mathematics and Computer Science, or an Honors program with a Mathematics major and a Computer Science minor. Details on these options are in the catalogue under Computer Science.

Sample program for majors thinking of graduate work in *social or management science*, or an MBA. Basic courses: Math 5 (or 5s), 6A–6B (or 6s), 9, 16, and 18; Computer Science 20. Advanced courses: a) Modeling (Math 61); b) at least one of Probability (Math 105), Mathematical Statistics I (Stat 53), and possibly Mathematical Statistics II (Stat 111); c) at

least one of Combinatorics (Math 65) or Operations Research (Econ 32); d) the two required core courses (Math 47 and Math 49); e) Differential Equations (Math 30). Since this is a heavy program (one who hopes to use mathematics in another field must have a good grasp both of the mathematics and of the applications), one of the core course requirements may be waived with permission of the Department.

Sample program for students thinking of graduate work in *operations research*. Basic courses: same as previous paragraph. Advanced courses: a) the two required core courses (Math 47 and Math 49); b) Combinatorial Optimization (Math 72) and Combinatorics (Math 65); c) Mathematical Statistics (Stat 53); d) at least one of Number Theory (Math 37), Modeling (Math 61), or Probability (Math 105).

Secondary Teaching Certification: Whether or not one majors in Mathematics, the courses required as part of the accreditation process for teaching mathematics at the secondary level are: a) three semesters of calculus (Math 5 or 5s, 6A–6B or 6s, 18 or 18H); b) one semester of linear algebra (Math 16 or 16H); c) at least one semester of discrete mathematics (Math 9, 65, or 72) or computer science (CS 10 or 20); d) geometry (Math 45, 85, or 106); e) one semester of modern pure or applied algebra (Math 37, 48, or 49); f) one semester of statistics or probability (Stat 1, 2, 2C, 53). In addition, students are advised strongly to take further mathematics courses emphasizing modeling and applications, and/or to take at least one course in the Natural or Social Sciences in which mathematics is used in a significant way. To be recommended for certification, a student must have an average grade of C or better in all Math/Stat courses. For further information about certification requirements, please consult the catalogue course listings under Education.

The Honors Program: Requirements for acceptance as a mathematics major in the Honors Program are more stringent than those for the course major and include a grade point average in mathematics and statistics courses of B+ or better. Potential Honors majors may want to consider including in the sophomore year a course that emphasizes theory and provides an opportunity for writing proofs. Department faculty can give advice on appropriate courses.

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Beginning with the Class of 1997, the program for an Honors major in Mathematics shall consist of preparations for external examination in three fields of two credits each, for a total of six distinct credits. Each preparation consists of a required core course together with a second credit in that field selected from a list of courses and seminars designated by the Department. For the Honors major, two of the preparations shall be in Algebra and Analysis, and every program must include at least one of Math 101 (Real Analysis Seminar) or Math 102 (Algebra Seminar). These two seminars will be offered every spring semester. Each student may select the third preparation from a list of fields that includes Discrete Mathematics, Geometry, Statistics, and Topology. In addition, each Honors major must complete one credit of Senior Honors Study for the purpose of enhancing and/or integrating the material from one or more of the preparations in the student's program. This will be accomplished normally by taking an advanced seminar in the senior year having a substantial prerequisite within a preparation. A list of the courses and seminars that comprise the various preparations and the corresponding Senior Honors Study is available in a handout from the Department office. Any alternatives to these must be approved by the Department.

Students wishing to complete an Honors minor in Mathematics must have credit for, or place out of, Math 5 or 5s, Math 6A-6B or 6s, Math 16 or 16H, and Math 18 or 18H. For the Honors portion of their program, minors must complete one two-credit preparation chosen from among any of the fields described above. Minors shall satisfy the Senior Honors Study requirement normally by enrolling in Math 97 (Senior Conference) for one-half credit for the purpose of writing a paper that extends the preparation within the minor. Again, any alternatives must have departmental approval.

COURSES

Stat 1. Statistical Thinking.

Statistics provides methods for how to collect and analyze data and generalize from the

results of the analysis. Statistics is used in a wide variety of fields, and the course provides an understanding of the role of statistics. It is intended for students who want an appreciation of statistics without having the need to learn how to apply statistical methods. It provides an intuitive understanding of statistical concepts and makes use of modern statistical software for the Macintosh computer. This course cannot be counted toward a major in Mathematics.

Primary distribution course.

Each semester. Iversen.

Stat 2. Statistical Methods.

Data on one variable are examined through graphical methods and the computations of averages and measures of variation. Relationships between two variables are studied using methods such as chi-square, rank correlations, analysis of variance, and regression analysis. The course is intended for students who want a practical introduction to statistical methods and who intend to do statistical analysis themselves, mainly in the biological and social sciences. It is not a prerequisite for any other department course except Stat 27, nor can it be counted toward a major in the Department. Recommended for students who have not studied calculus (those who know a semester of calculus are advised to take Stat 23 instead). Cross-listed as Soc/Anth 27.

Fall semester. Everson.

Stat 2C. Statistics.

This calculus-based introduction to statistics covers most of the same methods examined in Stat 2, but the course is taught on a higher mathematical level. The course is intended for anyone who wants an introduction to the application of statistical methods. Cross-listed as Soc/Anth 28.

Prerequisite: Math 4 or 5.

Spring semester. Everson.

Math 3. Introduction to Mathematical Thinking.

For students who need further preparation for courses requiring 4 years of solid high school preparation such as Stat 2 and Math 4, 5, 5s and 9. Math 3 will prepare students for these other courses two ways: 1) by work on standard precalculus topics; and 2) by study of

other topics, perhaps new to the students, that highlight the interesting nature of mathematics. The course will probably meet in seminar format, and will involve reading, discussion, board presentations, and writing. This course cannot be counted towards a mathematics major.

Prerequisite: Placement into this course through Swarthmore's calculus readiness exam (see "Placement Procedure" above).

Primary distribution course.

Fall semester. Maurer.

Math 4. Calculus Concepts.

Introduction to the concepts, methods, and applications of calculus. Intended primarily for students whose preparation is limited or weak, Math 4 proceeds more gently and less far than Math 5. Students who have had calculus in high school may not take Math 4 without permission of the instructor. Students who complete Math 4 are encouraged to continue on to Math 5 or Math 6A (or 6s); with permission of the Department, they may receive credit for Math 5 by taking it after Math 4. Otherwise, credit is not granted for both Math 4 and Math 5.

Prerequisite: Permission to take this course through Swarthmore's calculus readiness exam or calculus placement exam (see "Placement Procedure" above).

Primary distribution course.

Spring semester if offered.

Math 5. Calculus I.

This first semester calculus course will introduce topics in the differentiation and integration of functions of one variable. These topics include: limits and the definition of the derivative, interpretations and applications of the derivative, techniques of differentiation, graphing and extreme value problems, the logarithm and exponential functions, the integral, and the Fundamental Theorem of Calculus.

Prerequisite: Permission to take this course through Swarthmore's calculus readiness exam or calculus placement exam (see "Placement Procedure" above).

Fall semester. Herald, Staff.

Math 5s. Calculus I Seminar.

Math 5s covers the same material as the lec-

ture-based Math 5 but uses a seminar format (10–14 students) with additional meetings and lots of hands-on activities, e.g., writing, oral presentations, group work, computer work. Intended for students who feel that they could benefit from the collaborative seminar format and who wish to be challenged to excel in calculus so that they gain more confidence to continue with mathematics and science.

Prerequisite: Permission to take this course through Swarthmore's calculus readiness exam or calculus placement exam (see "Placement Procedure" above).

Primary distribution course.

Fall semester. Grinstead.

Note on Math 6.

The material following Math 5 is divided into four half-credit courses, 6A, 6B, 6C and 6D. Each course will run full time for one half semester. Students may take any number of these courses. Normally, however, students coming from Math 5 will take 6A and either 6B or 6C. Students enroll at the beginning of each semester for all versions of Math 6 they plan to take at any time during the semester. Math 6s is a full-semester seminar version of Math 6A and 6B.

Math 6A. Calculus IIA.

This course is a continuation of the material begun in Math 5 and is the prerequisite for Math 16 (Linear Algebra) and Math 18 (Several Variable Calculus) as well as for 6B and 6C. Topics will include applications of the integral, inverse trigonometric functions, methods of integration, and improper integrals. Math 6A is a one-half credit course.

Prerequisite: Math 5 or 5s, or placement by examination (see "Advanced Placement and Credit Policy" above).

Each semester (first half).

Fall semester. Shimamoto, Talvacchia.

Math 6B. Calculus IIB.

This course is an introduction to infinite series and approximation. Topics include Taylor polynomials and Taylor series, convergence tests, and the use of power series. Other topics, such as applications to differential equations and Fourier series, may be introduced, time permitting. Math 6B should

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be taken by anyone planning to take mathematics courses beyond the freshman-sophomore level. It is required of all students majoring in Mathematics, Chemistry, Physics, or Engineering. Math 6B is a one-half credit course.

Prerequisite: Math 6A, or placement by examination (see “Advanced Placement and Credit Policy” above).

Fall semester (each half) and spring semester (second half).

Fall semester. Grinstead, Maurer, Shapiro, Towse.

Math 6C. Calculus IIC.

This course emphasizes the differential aspects of several variable calculus covered in the first half of Math 18. In addition, multivariable integration may be touched on, as well as such topics as differential equations and probability. Math 6C is intended primarily for students interested in applications (especially in economics) who look upon Math 6 as one of their last mathematics courses and who do not plan to take Math 18. Students may (but normally will not) take both Math 6C and Math 18. This course cannot be counted toward a major in Mathematics. Math 6C is a one-half credit course.

Prerequisite: Math 6A, or placement by examination (see “Advanced Placement and Credit Policy” above).

Each semester (second half).

Fall semester. Shimamoto.

Math 6D. Postcalculus.

A special course, in the second half of the fall semester, primarily for first-year students who place into Math 6B in August. Math 6D is for students who like mathematics and are curious to know what it might be like to major in it. Each year the contents of 6D will be selected from the wealth of modern mathematics that cannot be introduced in standard freshman-sophomore courses. Math 6D is a one-half credit course.

Prerequisites: Math 6B (in exceptional cases, Math 6A) and either departmental recommendation or permission of the instructor.

Fall semester (second half). Towse.

Math 6s. Calculus II Seminar.

A continuation of Math 5s, in the same style.

Covers the material of Math 6A and 6B.

Prerequisite: Math 5 or 5s, or placement by examination (see “Advanced Placement and Credit Policy” above).

Primary distribution course.

Spring semester.

Math 9. Discrete Mathematics.

An introduction to noncontinuous mathematics. The key theme is how induction, iteration, and recursion can help one discover, compute, and prove solutions to various problems—often problems of interest in computer science, social science, or management. Topics include algorithms, graph theory, counting, difference equations, and finite probability. Special emphasis on how to write mathematics.

Prerequisite: Permission to take this course through Swarthmore’s calculus readiness exam or calculus placement exam (see “Placement Procedure” above). Familiarity with some computer language is helpful but not necessary.

Primary distribution course.

Each semester.

Fall semester. Grinstead.

Math 16. Linear Algebra.

This course covers vector spaces, matrices, and linear transformations with applications to solutions of systems of linear equations, determinants, and eigenvalues.

Prerequisite: A grade of C or better in Math 6A or Math 9, or placement by examination (see “Advanced Placement and Credit Policy” above).

Each semester.

Fall semester. Klotz.

Math 16H. Linear Algebra Honors Course.

This honors version of Math 16 will be more theoretical, abstract, and rigorous than its standard counterpart (the subject matter will be equally as valuable in applied situations, but applications will be less dwelt upon). It is intended for students with exceptionally strong mathematical skills, especially if they are thinking of a mathematics major.

Prerequisite: A grade of B or better in Math 6A or Math 9, or placement by examination (see “Advanced Placement and Credit Policy” above).

Fall semester. Maurer.

Math 18. Several Variable Calculus.

This course considers differentiation and integration of functions of several variables with special emphasis on two and three dimensions. Topics include partial differentiation, extreme value problems, Lagrange multipliers, multiple integrals, line and surface integrals, Green's, Stokes', and Gauss' Theorems. Often there is one section for students who have had linear algebra (Math 16 or 16H) and another for students who have not.

Prerequisite: Math 6A or equivalent, or placement by examination (see "Advanced Placement and Credit Policy" above).

Recommended: Math 16.

Each semester.

Fall semester. Shimamoto, Staff.

Math 18H. Several Variable Calculus Honors Course.

This honors version of Math 18 will be more theoretical, abstract, and rigorous than its standard counterpart (the subject matter will be equally as valuable in applied situations, but applications will be less dwelt upon). It is intended for students with exceptionally strong mathematical skills and primarily for those who have completed Math 16H successfully.

Prerequisite: A grade of C or better in Math 16H, or permission of the instructor.

Spring semester.

Stat 27. Multivariate Statistical Methods.

Given as a continuation of Stat 2 or Stat 23, the course deals mainly with the study of relationships between three or more variables.

Prerequisite: Any one of Stat 2, 23, 53, or Econ 31.

Alternate years. Spring semester.

Not offered 1998-99.

Math 30. Differential Equations.

An introduction to differential equations that includes such topics as first order equations, linear differential equations, series solutions, first order systems of equations, Laplace transforms, approximation methods, some partial differential equations.

Prerequisites: Math 6B and either 18 or 6C, or permission of the instructor. Math 16 recommended strongly.

Spring semester.

Math 37. Number Theory.

The theory of primes, divisibility concepts, and the theory of multiplicative number theory will be developed. Students are also expected to learn how to construct a mathematical proof.

Prerequisites: Math 16 and 18, or permission of the instructor.

Primary distribution course.

Alternate years.

Fall semester. Campbell.

Math 45. Topics in Geometry.

Course content varies from year to year, but recently the focus has been on the careful development of plane geometry, including basic axioms and the geometries that result: Euclidean, projective, and hyperbolic.

Prerequisites: None, but the course will be taught at a level suitable for students who have completed Math 16 and 18. See the instructor if in doubt.

Primary distribution course.

Alternate years. Fall semester.

Not offered 1998-99.

Math 46. Theory of Computation.

(Cross-listed as Computer Science 46. Please see Computer Science for description.)

Math 47. Introduction to Real Analysis.

This course concentrates on the careful study of the principles underlying the calculus of real valued functions of real variables. Topics will include continuity, compactness, connectedness, uniform convergence, differentiation, and integration.

Prerequisites: Math 6B, 16, and 18, or permission of the instructor.

Primary distribution course.

Fall semester. Talvacchia.

Math 48. Topics in Algebra.

Course content varies from year to year depending on student and faculty interest. Recent offerings have included Coding Theory, Groups and Representations, Finite Reflection Groups.

Prerequisite: Math 16 and possibly Math 49.

Alternate years. Spring semester.

Not offered 1998-99.

Math 49. Introduction to Modern Algebra.

This course is an introduction to abstract algebra and will survey basic algebraic systems—groups, rings, fields. While these concepts will be illustrated by concrete examples, the emphasis will be on abstract theorems, proofs, and rigorous mathematical reasoning.

Prerequisite: Math 16 or permission of the instructor.

Primary distribution course.

Fall semester. Shapiro.

Stat 53. Mathematical Statistics I.

Based on probability theory, this course examines the statistical theory for the estimation of parameters and tests of hypotheses. Both small and large sample properties of the estimators are studied. The course concludes with the study of models dealing with relationships between variables including chi-square and regression analysis.

Prerequisites: Math 16 and 18, or permission of the instructor.

Alternate years.

Fall semester. Everson.

Math 61. Modeling.

An introduction to the methods and attitudes of mathematical modeling. Since modeling in physical science and engineering is already taught in courses in those disciplines, applications in this course will be primarily to social and biological sciences. Various standard methods used in modeling will be introduced: differential equations, Markov chains, game theory, graph theory, computer simulation. The emphasis, however, will be on how to apply these subjects to specific modeling problems, not on their systematic theory. The format of the course will include projects as well as lectures and problem sets.

Prerequisites: Math 16 and 18, or permission of the instructor.

Alternate years.

Fall semester. Herald.

Math 65. Combinatorics.

This course continues the study of noncontinuous mathematics begun in Math 9. The topics covered include three broad areas: Counting Theory, Graph Theory, and Design Theory. The first area includes a study of generating

functions and Polya counting. The second area is concerned with relations between certain graphical invariants. Topics such as Extremal Graph Theory and Ramsey Theory may be introduced. The third area introduces combinatorial structures such as matroids, codes, and Latin squares.

Prerequisites: Math 9 and at least one other course in mathematics.

Alternate years.

Spring semester.

Math 72. Topics in Combinatorial Optimization.

Topics vary from year to year and will be chosen from such things as linear programming, game theory, graph theory algorithms, algorithms for prime factorization, and complexity theory.

Prerequisites: Math 9 and at least one higher numbered mathematics course.

Recommended: CS 20.

Alternate years. Fall semester.

Not offered 1998-99.

Math 81. Partial Differential Equations.

The first part of the course consists of an introduction to linear partial differential equations of elliptic, parabolic, and hyperbolic type via the Laplace equation, the heat equation, and the wave equation. The second part of the course is an introduction to the calculus of variations. Additional topics depend on the interests of the students and instructor.

Prerequisites: Math 16, 18, and either Math 30 or Physics 50 or permission of the instructor.

Alternate years. Spring semester.

Not offered 1998-99.

Math 85. Topics in Analysis.

Course content varies from year to year. Recent topics have included dynamical systems and the mathematics of financial derivatives. In 1999, the topic will be Fourier analysis: Fourier series and integrals, inversion, applications to probability, number theory, and partial differential equations.

Prerequisites: Math 16 and Math 18. Math 47 is also recommended.

Alternate years.

Spring semester.

Math 93/Stat 93. Directed Reading.**Math 96/Stat 96. Thesis.****Math 97. Senior Conference.**

Required of all senior mathematics majors in the course program, this half-credit course provides them an opportunity to delve more deeply and on their own into a particular topic agreed upon by the student and the instructor. This is accomplished through a written paper and an oral presentation. In addition, Honors minors will satisfy the Senior Honors Study component of the minor typically by enrolling in Senior Conference for the purpose of writing a paper that extends the work within the minor. The work is spread throughout the year with the talks and/or papers normally presented in the Spring. Students register for this course for the spring semester but must also sign in with the instructor for the fall semester.

One-half credit.

All year. Grinstead.

SEMINARS**Math 101. Real Analysis II.**

This seminar is a continuation of Introduction to Real Analysis (Math 47). Topics may include the inverse and implicit function theorems, differential forms, calculus on manifolds, and Lebesgue integration.

One credit.

Prerequisite: Math 47.

Spring semester.

Math 102. Modern Algebra II.

This seminar is a continuation of Introduction to Modern Algebra (Math 49). Topics covered usually include field theory, Galois theory (including the insolvability of the quintic), the structure theorem for modules over principal ideal domains, and a theoretical development of linear algebra. Other topics may be studied depending on the interests of students and instructor.

One credit.

Prerequisite: Math 49.

Spring semester.

Math 103. Complex Analysis.

A brief study of the geometry of complex numbers is followed by a detailed treatment of the Cauchy theory of analytic functions of a complex variable: integration and Cauchy's Theorem, power series, residue calculus, conformal mapping, and harmonic functions. Various applications are given and other topics, such as elliptic functions, analytic continuation and the theory of Weierstrass, may be discussed.

One credit.

Prerequisite: Math 47.

Alternate years.

Spring semester.

Math 104. Topology.

An introduction to point-set, combinatorial, and algebraic topology: topological spaces, classification of surfaces, the fundamental group, covering spaces, simplicial complexes and homology (including related algebra).

Two credits.

Prerequisites: Math 47 and 49.

Alternate years. Spring semester.

Not offered 1998-99.

Math 105. Probability.

An introduction to measure-theoretic probability theory. Topics may include branching processes, renewal theory, random walks, stochastic processes, laws of large numbers, characteristic functions, the Central Limit Theorem, Markov chains, the Poisson process, percolation.

One credit.

Prerequisites: Statistics 53.

Alternate years. Fall semester.

Not offered 1998-99.

Math 106. Advanced Topics in Geometry.

Course content varies from year to year to be chosen from among differential geometry, differential topology, and algebraic geometry. In 1998, the topic will be algebraic geometry: curves, surfaces, and their generalization to algebraic varieties.

One credit.

Prerequisites depend upon the topic chosen.

Alternate years.

Fall semester. Towse.

Mathematics and Statistics

Stat 111. Mathematical Statistics II.

This one-credit seminar is offered as a continuation of Stat 53. It deals mainly with statistical models for the relationships between variables. The general linear model, which includes regression, variance, and covariance analysis, is examined in detail. Topics also include nonparametric statistics, sampling theory, and Bayesian statistical inference.

One credit.

Prerequisite: Stat 53.

Alternate years.

Spring semester.

Medieval Studies

Coordinator: **MICHAEL W. COTHREN** (Art History)
Committee: **Stephen P. Bensch** (History)³
Nathaniel Deutsch (Religion)³
Michael Marissen (Music)
Rosaria V. Munson (Classics)³
Ellen Ross (Religion)
William N. Turpin (Classics)
Craig Williamson (English Literature)²

2 Absent on leave, spring semester, 1999.

3 Absent on leave, 1998-99.

This interdisciplinary program offers an opportunity for a comprehensive study of European and Mediterranean civilization from the fourth century to the fifteenth. The period, which has a critical importance for the understanding of Western culture, can be approached best through a combination of several disciplines. Hence eight Departments (Art, Classics, English Literature, History, Modern Languages, Music, Religion, and Philosophy) cooperate to provide a course of study which may be offered as a major in the Course Program or as a major or minor in the Honors Program.

All students who major in the Course Program or major or minor in the Honors Program must satisfy the following distribution requirements.

1 course in Art History (Art History 14 or Art History 145)

1 course in History (History 2a, 6, 14-17 or 112)

1 course in Literature (English 10, 14, 16, 17, 102, or Classics 14 or 60).

1 course in Religion (Religion 14B, 114, 116) or Philosophy (medieval)

(Please note possible prerequisites for the above courses.)

For a major in the Course Program the requirements are as follows:

1. Distribution requirements as listed above.

2. Senior Comprehensive Examinations.

Each major in course is required to complete the senior comprehensive written and oral examinations (normally taken at the end of the second semester of senior year). These examinations are planned as a culminating

exercise to facilitate the review and integration of the various subjects and methods involved in the interdisciplinary field of Medieval Studies.

3. Students must complete eight credits (at least) in Medieval Studies in order to graduate with a Medieval Studies Major. (In addition to courses these credits may include directed readings in medieval subjects and/or a thesis written during the first semester of the senior year.)

For a major in the Honors Program the requirements are as follows:

1. Distribution requirements as listed above.

2. The four preparations for the Honors Program should reflect the interdisciplinary nature of this major and must include work in three of the following five areas: Art History, History, Literature, Music, or Religion/Philosophy. The preparations may be constituted by some combination of the following: seminars, pre-approved two-course combinations, courses with attachments, or a thesis. Students may design an integrated minor in another field by counting one of the Medieval Studies preparations in its home department. Students who minor in another department will have to fulfill the minor prerequisites and requirements (including Senior Honors Study Minor requirements) stipulated by that department.

3. The Senior Honors Study component of the Honors Program may be satisfied by (a) a 6,000 word interdisciplinary paper integrating work from two areas or (b) by an interdisciplinary reading list relevant to Medieval

Medieval Studies

Studies. The paper or the reading list will become part of the Honors Program Portfolio and may be part of the material examined.

For a minor in the Honors Program the requirements are as follows:

1. Distribution requirements as listed above.
2. The one preparation for the Honors Program should reflect the interdisciplinary nature of this minor and may be satisfied by one of the following: one seminar; a pre-approved two-course combination; or one course with an attachment. The minor preparation must be in a department distinct from the student's major.
3. The Senior Honors Study component of the minor will be an interdisciplinary reading list, individually designed to facilitate the student's integrative learning experience.

Courses currently offered in Medieval Studies: (See catalogue sections for individual departments to determine specific offerings in 1998-99.)

Art History 14. Medieval Survey.

**Art History 46/Religion 29.
Monasticism and the Arts in the
Christian Middle Ages.**

**Classics 60. Dante and the Classical
Tradition.**

English 10. Survey I: *Beowulf* to Milton.

**English 14. Old English/History of the
Language.**

English 16. Chaucer.

English 17. Chaucer & Shakespeare.

History 2a. Medieval Europe.

**History 6. The Formation of the Islamic
Near East.**

History 12. Chivalric Society.

**History 14. Friars, Heretics, and
Female Mystics: Religious Turmoil
in the Middle Ages.**

History 15. Medieval Towns.

**History 17. The Mediterranean World
in the Middle Ages.**

Latin 14. Medieval Latin.

**Music 20. Medieval and Renaissance
Music.**

**Music 45. Performance (early music
ensemble).**

**Religion 14B. Christian Life and Thought
in the Middle Ages.**

**Religion 20B. Prophets and Visionaries:
Christian Mysticism Through the Ages.**

Medieval Studies 96. Thesis.

Seminars currently offered in Medieval
Studies:

**Art History 145: Gothic Art and
Architecture.**

**English 102: Chaucer and Medieval
Literature.**

History 112. The Barbarian North.

Religion 116. The Body in Late Antiquity.

Religion 114. Love and Religion.

Modern Languages and Literatures

- AZOUZ BEGAG** (French), Cornell Visiting Professor⁴
THOMPSON BRADLEY (Russian), Professor and Chair, 1998-2001
MARION J. FABER (German), Professor
JOHN J. HASSETT (Spanish), Professor
GEORGE MOSKOS (French), Professor
ROBERT ROZA (French), Professor^{10,2}
ALAN BERKOWITZ (Chinese), Associate Professor
SIBELAN FORRESTER (Russian), Associate Professor
BRIGITTE LANE (French), Associate Professor⁹
MICHELINE RICE-MAXIMIN (French), Associate Professor³
HANSJAKOB WERLEN (German), Associate Professor²
JEAN-VINCENT BLANCHARD (French), Assistant Professor^{8, 11}
AURORA CAMACHO de SCHMIDT (Spanish), Assistant Professor
MARIA LUISA GUARDIOLA (Spanish), Assistant Professor³
HAILI KONG (Chinese), Assistant Professor
CHRISTOPHER PAVSEK (German), Visiting Assistant Professor
SUNKA SIMON (German), Assistant Professor¹
CHRISTINE DEGRADO (Spanish), Instructor (part-time)
JOAN FRIEDMAN (Spanish), Instructor (part-time)
EVGENIYA L. KATSENELINBOIGEN (Russian), Instructor (part-time)
MARY K. KENNEY (Spanish), Instructor (part-time)
CAROLE NETTER (French), Instructor (part-time)
JEANETTE OWEN (Russian), Visiting Instructor
JENNIFER PATTERSON PARRACK (Spanish), Visiting Instructor
ELKE PLAXTON (German), Instructor (part-time)
KIRSTEN E. SPEIDEL (Chinese), Instructor (part-time)
SUJANE WU (Chinese), Instructor (part-time)
MARIE-CHRISTINE GIRARD (French), Visiting Language Instructor
MICHAEL JONES, Language Resource Center Director
LEONORE BAGINSKI, Administrative Coordinator
-

1 Absent on leave, fall semester, 1998.

2 Absent on leave, spring semester, 1999.

3 Absent on leave, 1998-99.

4 Fall semester, 1998.

8 Campus Coordinator, Swarthmore Program in Grenoble, fall semester, 1998.

9 Campus Coordinator, Swarthmore Program in Grenoble, spring semester, 1999.

10 Program Director, Swarthmore Program in Grenoble, fall semester, 1998.

11 Program Director, Swarthmore Program in Grenoble, spring semester, 1999.

The Department of Modern Languages and Literatures—consisting of Chinese, French, German, Russian, and Spanish sections—provides Swarthmore students with an understanding of foreign cultures through their original languages, and prepares students to engage effectively in an increasingly internationalized

world. In addition to language courses, the Department also offers a large variety of seminars and courses (some in English) that explore authors, genres, aesthetic theories, and periods of literary and cinematic production, and that investigate literature and culture as sites of contending social forces and values. In con-

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junction with demonstrated competence in the language, a foreign literature major will normally complete a minimum of eight credits in advanced language, literature, or culture courses, and a culminating exercise, such as a comprehensive examination. One of the required courses for the foreign literature major may be taken in English provided it is pertinent to the student's specific major. The Department encourages interdisciplinary approaches within the guidelines of the programs in Asian Studies, Francophone Studies, German Studies, Latin American Studies, and Slavic Studies. Students interested in the literature of more than one language are encouraged to consider a Comparative Literature major. Students should also take note of the related major in Linguistics and Languages.

Courses numbered 1B through 4B are primarily designed to help students acquire the linguistic competence necessary to pursue literary and cultural studies in a foreign language through work with the language and selected texts of literary or cultural interest.

For a detailed description of the orientation in these courses see the Explanatory Note on these language courses below. Courses numbered 11 or above emphasize the study of literature and culture as a humanistic discipline as well as competence in the spoken and written language.

Students who enter with no previous knowledge of a language and who are interested in majoring in a foreign literature should register for the intensive language courses (1B-2B) in the freshman year. Language courses numbered 3B and above count toward the eight credits required for the major.

Students who wish to continue a language begun elsewhere will be placed at the course level where they will profit best according to their score on the College Entrance Examination or placement tests administered by the Department in the fall.

Prerequisites for majors are noted under the listing of each of the literatures taught. Exceptions to course requirements are made for those who show competence in the language of specialization. Students who speak Chinese, French, German, Russian or Spanish fluently should consult with the Department before electing courses.

Majors are urged to select supporting courses in other literatures, in history, philosophy, linguistics, or art history. The Department also recommends participation for a minimum of a summer and a semester in an academic program abroad. Linguistically qualified students may apply to the Swarthmore Program in Grenoble at the University of Grenoble, for one or two semesters in the sophomore or junior year. This program is particularly suited for majors in the humanities and the social sciences. Students competent in Spanish should consider the Hamilton College Program in Madrid, Spain, which is cooperatively sponsored by Swarthmore. Other recommended programs include Rice University-Chile; the University of Kansas-Costa Rica; the University of Pennsylvania-Mexico; Scripps College-Ecuador; and CEUCA in Columbia. (The Spanish section requires that its majors spend a minimum of one semester of study abroad in a program approved by the Section). Students of German have the opportunity to join the Dickinson College program in Bremen during the spring semester of each year. Other programs students should consider are the Wayne State Junior Year in Germany (at the University of Munich or the University of Freiburg), the Wesleyan University Program in Regensburg or the Duke Program in Berlin. Students in Russian are strongly encouraged to spend at least one semester in the A.C.T.R. or C.I.E.E. language programs among others in Russia. Study abroad is particularly encouraged for students of Chinese; academic credit (full or partial) is generally approved for participation in the several programs of varying duration in the People's Republic of China and in Taiwan, recommended by the Chinese section, including the Associated China Program in Tianjin of which Swarthmore is a consortial member. Students on scholarship may apply scholarship monies to designated programs of study abroad.

Students wishing to receive a Teaching Certificate in French, German, Russian or Spanish should plan on taking the regular program of language and literature courses required for the major or show proof of the equivalent. In addition, they should take Linguistics 1. Appropriate supporting courses which broaden knowledge and understanding of the foreign culture being studied are also

recommended. Prospective teachers of a foreign language must include a minimum of a semester abroad in their academic program.

Students planning to do graduate work are reminded that, in addition to the language of specialization, a reading knowledge of other languages is often required for admission to advanced studies.

Advanced Placement

The Department will grant one credit for incoming students who have achieved a score of 4 or 5 in Advanced Placement French, German or Spanish examinations when they have successfully completed a one-credit course in that language at the College.

Literatures in Translation

Students acquainted with a particular foreign language are urged to elect an appropriate literature course taught in the original language. LITR courses provide students with the opportunity to study a literature which they cannot read in the original. These courses cannot be substituted for the 11 or 12 level courses to satisfy the departmental prerequisites for a major or minor in the original languages, but a student may take one of these courses to satisfy the eight-credit requirement of a foreign literature major provided that the course is pertinent to the specific literature of the major.

13R. The Russian Novel.

The rise of the Russian novel in the 19th century during the struggle against serfdom and the transition to an urban industrial society and revolution in the 20th century.

(See Russian 13)

No prerequisite.

Primary distribution course.

Fall semester 1998. Bradley.

13. Medieval Comparative Literature.

14. Modern European Literature.

Studying key modernist works of fiction between 1900 and 1930, we will work in seminar format (presentation and critical discussion of student papers). Authors will include Nietzsche, Conrad, Joyce, Kafka, Proust,

Thomas Mann, and Virginia Woolf. Intended especially for freshmen contemplating a Literature major. Limited enrollment.

Primary distribution course.

Fall semester 1998. Faber.

15R. Russian and East European Prose.

Novels and stories by the most prominent 20th-century writers of this multifaceted and turbulent region. Analysis of individual works and writers with the purpose of approaching the religious, linguistic and historical diversity of Eastern Europe in an era of war, revolution, political dissent and outstanding cultural and intellectual achievement. Readings, lectures and discussion in English; qualified students may do some readings in the original language(s).

(See Russian 15)

Primary distribution course.

Spring semester 1999. Forrester.

16CH. Substance, Shadow, and Spirit in Chinese Literature and Culture.

This course will explore the literary and intellectual world of traditional Chinese culture, through original writings in English translation, including both poetry and prose. Topics to be discussed include: Taoism, Confucianism, and the contouring of Chinese culture; immortality, wine, and allaying the mundane; the religious dimension, disengagement, and the appreciation of the natural world, etc. The course also will address cultural and literary formulations of conduct and persona, and the expression of individualism in an authoritarian society.

No prerequisites; (Cross-listed as Chinese 16)

Primary distribution course.

Fall semester 1998. Berkowitz.

17CH. The Legacy of Chinese Narrative Literature: The Story in Dynastic China.

Tales of the strange, biographies and hagiographies, moral tales, detective stories, literary jottings, drama, novellas and novels, masterworks of the Chinese literary tradition throughout the centuries of imperial China.

No prerequisites and no knowledge of Chinese or of China required.

(Cross-listed as Chinese 17)

Not offered 1998-99. Berkowitz.

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18CH. The Classical Tradition in Chinese Literature.

(See Chinese 18).

Not offered 1998-99. Berkowitz.

23CH. Modern Chinese Literature: A New Novelistic Discourse (1918-1948)

Modern Chinese literary texts created between 1918 and 1948, presenting a series of political, social, cultural, and ideological dilemmas underlying twentieth century Chinese history. The class will discuss fundamental issues of modernity, and new literary developments under the impact of the May Fourth Movement.

(Cross-listed as Chinese 23)

Not offered 1998-99. Kong.

25CH. Contemporary Chinese Fiction: Mirror of Social Change.

Literary narratives of post-Mao China in translation. The selected stories and novellas articulate the historical specificity of ideological dilemmas and cultural dynamics, in the imaginary process of dealing with love, politics, sex, morality, economic reform, and feminist issues.

(Cross-listed as Chinese 25)

Not offered 1998-99. Kong.

31R. Revolutionary Culture and Transformation in the USSR.

Exploration of the ways in which after 1917 the new Soviet Republic attempted a revolutionary transformation of the entire culture as reflected in literature, film, music, and social organization.

(Cross-listed as History 31)

Spring semester 1999. Bradley and Weinberg.

32R. From Revolution to Capitalism: Critical Issues in Contemporary Russia.

This course focuses on those developments in the Soviet Union after the death of Stalin in 1953 which paved the way for perestroika and glasnost in the 1980s and have taken root during the current period of social, political, economic, and cultural transformation.

(See History 32)

Not offered 1998-99. Bradley and Weinberg.

33R. The Struggle for Liberation and Social Change in Literature and History.

The search for community, the idea of justice and democracy, and the universal struggle for social and political change at the bottom of society in literature and history.

Not offered 1998-99. Bradley, Ford, Cronin.

37G. History and Memory: Perspectives on the Holocaust.

This course explores the roots of Nazism, the implementation of the Final Solution, and the legacy of the Holocaust through an interdisciplinary approach.

Fulfills distribution requirement for either Humanities or Social Sciences.

(Cross-listed as History 37)

To be offered 1999-00. Faber, Weinberg.

44G. Introduction to Film: Film Before World War II.

This course will be an introduction to the study of the aesthetic, historical and cultural/political dimensions of film between 1895 and 1936. (Cross-listed as English 87)

Not offered 1998-99. Pavsek.

50R. Russian Literature and Revolutionary Thought.

A study of continuity and change in the relationship between the major political and social movements and the writers before and after 1917.

Not offered 1998-99. Bradley.

50SA. 1898: War and Literature.

This course will examine the cultural and political implications of the Spanish-Cuban-American War (1895-1898), especially in Cuba and Puerto Rico.

Not offered 1998-99.

51G. Gender and Race in German Cinema.

This course will examine the historical, structural, thematic, and imaginary links between race and gender in the visual landscape of a postwar Germany struggling to come to terms with the Third Reich, the Holocaust, and the Second World War.

Not offered 1998-99. Simon.

53G. Politics and Utopia in Post-WWII International Cinema.

This course will look at ways in which various filmmakers throughout the world attempted to create a political cinema—or to represent politics—during the sixties and seventies.

Not offered 1998-99. Pavsek.

54G. Post-War German Cinema.

A study of (primarily west) German Cinema from the “rubble films” of the immediate post-war period, through the advent of the New German Cinema in the sixties, to the present state of German film in the “post-wall” era.

(Cross-listed as German 54.)

Not offered 1998-99. Pavsek.

55CH. Contemporary Chinese Cinema.

Cinema has become a special form of cultural mirror representing social dynamics and drastic changes in contemporary China. The course will develop a better understanding of changing Chinese culture through analyzing cinematic texts.

(Cross-listed as Chinese 55)

Not offered 1998-99. Kong.

55G. Film and Literature in Weimar Germany.

Not offered 1998-99. Faber.

55SA. The Fiction of Contemporary Spanish-American Women Writers.

Not offered 1998-99.

56CH. History of Chinese Cinema (1905-1995).

This course investigates Chinese cinema in its ninety year development throughout different political regimes and cultural milieus. Cinema in China, as a twentieth century cultural hybrid of West and East, reflects social change and intellectual reaction, both collectively and individually, in a changing era. A study of the chosen cinematic texts, from silent film to the post-fifth generation filmmaker's films, will focus on the issues related to nationhood, gender, and modernity, along with the development of the cinematic discourse in China. All the films have English subtitles and all readings are in English. No previous preparation in Chinese is required.

Open to the entire tri-college student body, and taught on the Bryn Mawr campus.

(Cross-listed as Chinese 56)

Spring semester 1999. Kong.

60SA. Spanish American Society Through Its Novel.

This course will explore the relationship between society and the novel in Spanish America. Selected works by Carlos Fuentes, Mario Vargas Llosa, Isabel Allende, Gabriel García Marquez, Luisa Valenzuela, Elena Poniatowska, and others will be discussed in conjunction with sociological patterns in contemporary Spanish America. This course is *not* a primary distribution course. (See Sociology/Anthropology 37.)

Spring semester 2000. Hassett and Muñoz.

61SA. Women's Testimonial Literature of Latin America.

Marginal women—peasants, Indigenous leaders, urban squatters, guerrillas, mothers of the disappeared, and victims of brutal repression—must “write” for all the world to listen. The fire of their texts, often mediated by an educated foreigner, subverts all power relations.

Not offered 1998-99. Camacho de Schmidt.

63CH. Comparative Perspectives: China in the Ancient World.

Topics to be explored include obligation to self and society; individualism and the role of withdrawal; the heroic ethos; the individual and the cosmos; the individual and gender roles.

No prerequisites; no knowledge of Chinese required.

(Cross-listed as Chinese 63.)

Not offered 1998-99. Berkowitz.

63SA. La frontera: The Many Voices of the U.S.-Mexico Border.

Sometimes defined as a wound, the U.S. southern border was created by war, and is today the porous gate to capital, commodities, immigrant labor, refugees, drugs, and arms. A membrane where cultural integration is negotiated, the border is rich in tradition, resiliency, and absorbing capacity. It is also the scenario of new nationalistic forces that can erupt with violence. On both sides

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of the border, a literature of uncommon vitality records the binational experience.

Fall semester 1998. Camacho de Schmidt.

65G. Marxism.

An extensive introduction to the work of Karl Marx. We will read selections from the breadth of Marx's writings, from the early "Economic and Philosophical Manuscript" to *Capital* (selections). Our approach will be "fundamentalist" (but not dogmatic); that is, we will approach Marx's work as a method of critique of capitalist society, and attempt to come to an understanding of its central concepts: labor-power, capitalism, proletariat, bourgeoisie, revolution, ideology, value, history, etc. We will also consider the validity and relevance of Marx's critique in the contemporary world after the collapse of Soviet and Eastern European socialism.

Fall semester 1998. Pavsek.

65SA. Indigenous Peoples in Latin American Literature.

This course looks critically at the representation of native peoples in Latin America, from the definition of "the Indian problem" to the idealization of ancient utopian kingdoms to which we must return.

Not offered 1998-99. Camacho de Schmidt.

66CH. Chinese Poetry.

This course explores Chinese poetry and Chinese poetic culture, from early times to the present. (Cross-listed as Chinese 66)

Not offered 1998-99. Berkowitz.

66G. Goethe's Faust.

Not offered 1998-99. Werlen.

66SA. Latin American Literature of Resistance.

In this turbulent continent, poetry has been the site of truth-telling, denunciation, condemnation and hope. What García Márquez called "the immeasurable violence and pain of our history" is found in poems written on kitchen tables, in trenches, in exile and in prison, even in places of torture. Texts are the works of masters like Vallejo, Neruda, and Cardenal; but also of younger women poets who have changed pain into song.

Not offered 1998-99. Camacho de Schmidt.

70F. Caribbean and French Civilizations and Cultures.

Study of the history of the French overseas departments with collateral readings of literary texts.

(Crosslisted with Black Studies.)

(Crosslisted as French 70F.)

Not offered 1998-99. Rice-Maximin.

70R. Translation Workshop.

This workshop in Literary Translation will concentrate on both translation theory and practice, working in poetry, prose and drama as well as editing. Students will participate in an associated series of bilingual readings and will produce a substantial portfolio of work. There are no prerequisites, but excellent knowledge of a language other than English (equivalent to a 4B course at Swarthmore or higher) is highly recommended; or, failing that, access to at least one very patient speaker of a foreign language.

(Cross-listed as Linguistics 70)

Fall semester 1998. Forrester.

75F. Haïti, the French Antilles and Guyane in Translation.

Study of literary texts and their rewriting of the local colonial history.

(Cross-listed with Black Studies)

Not offered 1998-99. Rice-Maximin.

75F. French Language Attachment to Haïti, the French Antilles and Guyane in Translation.

Not offered 1998-99. Rice-Maximin.

77G. Literature of Decadence.

Symbolist, fin-de-siècle, and modernist understandings of the evolution of civilization; the themes of intellectual and spiritual crisis, the "decline of the West," "art for art's sake" in European poetry, drama and fiction during the decades 1880-1920.

(Cross-listed as German 77.)

To be offered 1999-00. Werlen.

78R. Russian Models of Reality: Film, Poetry, Prose, Theory.

The course will analyze both famous and neglected works, ranging from medieval chronicle and hagiography, through the great literature and criticism of the 19th and 20th centuries, to a contemporary drag queen's depic-

tion of Marilyn Monroe.

Not offered 1998-99. Forrester.

79F. Scandal in the Ink: Lesbian/Gay Traditions in French Literature.

(Cross-listed as French 79F)

Not offered 1998-99. Moskos.

79R. Russian Women Writers.

This course balances the picture of Russian literature by concentrating on the female authors whose activities and texts were for a long time left out of the canon. Although the course is in translation, students with Russian may do part or all of the readings in the original.

Not offered 1998-99. Forrester.

80F. Cities and Ghettos in Europe: Comparative approaches to ethnic relations in Europe and America.

In an age of globalization, the social, economic, political and cultural marks of ethnically diverse societies are increasingly visible in Europe and North America. Cities are the privileged spaces of these encounters. Ethnic groups whose origins are continents apart are now neighbors, a phenomenon encapsulated in the paradox of "global cities." How far are these encounters producing similar experiences on both sides of the Atlantic? Do historical and political differences between states continue to shape distinctive patterns of ethnic relations in Europe and in the US? This course will adopt an interdisciplinary approach to these questions, bringing together disciplines ranging from sociology and political science to anthropology and cultural studies and will emphasize the particular cases of France, the US and Great Britain. Five main issues to be explored in the course: (1) Cities, ghettos and the sociology of knowledge, (2) Concentration, dispersion or segregation? (3) (Un)employment, (4) Political participation, (5) Cultural production.

(Cross-listed as French 80F and SOAN 42)

(Optional French Language Attachment)

Fall semester 1998. Azouz Begag (Cornell Visiting Professor).

80R. Literature of Dissent.

This course will address the central place of dissent in Russian literature, its flowering in reaction to Tsarist and Soviet censorship. The theme leads to some of the most important

works of nineteenth and twentieth century Russian poetry and prose.

Not offered 1998-99. Forrester.

81CH. Transcending the Mundane: Taoism in Chinese Literature and Culture.

Chinese civilization has been imbued with Taoism and Taoist topoi for some two and one-half millennia, from popular belief and custom to intellectual and literary culture. In addition to consideration of the texts and contexts of both philosophical and religious Taoism, the class will examine the articulation and role of Taoism in Chinese literature and culture, and the enduring implications of the Taoist ethos. All readings will be in English.

Prerequisite: one introductory course on Chinese culture or religion, or permission of the instructor.

(Cross-listed as Chinese 81 and Religion 81)

Spring semester 1999. Berkowitz.

91CH. Special Topics in Chinese Literature and Culture.

The course will concentrate on selected themes, genres, authors, time periods, or critical problems in Chinese literature; all readings in English translation.

(Cross-listed as Chinese 91)

Not offered 1998-99.

EXPLANATORY NOTE OF FIRST- AND SECOND-YEAR LANGUAGE COURSES:

Courses numbered 1B-2B, 3B, 4B carry one and one-half credits per semester. Three semesters in this sequence are equivalent to two years of work at the college level. Designed to impart an active command of the language and combine the study or review of grammar essentials and readings of varied texts with intensive practice to develop the ability to speak the language. Recommended for students with no previous knowledge of the language and who are interested in preparing for intermediate or advanced courses in literature and culture taught in the original language. These courses (a) meet alternately as sections for grammar presentation and small groups for oral practice, and (b) require work in the language resource center.

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Students who start in the IB-2B sequence must complete 2B in order to receive credit for 1B. However, students placing directly in 2B can receive one and one-half semester credits for that course. Courses numbered 3B and 4B may be taken singly for one and one-half semester credits.

Chinese

Introductory and intermediate Chinese language courses are intensive and carry one and one-half credits per semester. Students should plan to take these courses as early as possible so that studying in China, which is strongly encouraged, can be incorporated into their curriculum. Swarthmore participates in the Associated China Program at Nankai University in Tianjin for the Fall semester; students also may attend a number of other recommended programs in China and Taiwan for a summer, a semester or a full year. First through fourth-year Chinese language courses are offered each year. An introduction to Classical Chinese is offered every year. Literature and culture courses in translation are offered regularly each year and are open to the entire student community. Students of Chinese are particularly urged to take these classes as a means of gaining perspective on Chinese literature and culture.

Majoring and Minorin in Chinese:

Qualified students may construct a Special Major in Chinese, containing components of language, literature, and culture. Study abroad is strongly encouraged and supported, and contributes directly to a major or minor in Chinese. All Chinese majors (course or Honors) normally must complete the following courses: 20, 21, 33, one course on modern literature or film, and one course on pre-modern literature and culture. Interested students should consult with the Section Head in Chinese. Students of Chinese also may major in Asian Studies, where Chinese language courses above the first-year level as well as Chinese literature and culture courses and credit for study abroad normally may be counted toward the major (see under Asian Studies).

Majoring and Minorin in Chinese in the Honors Program:

Students of Chinese may major in the Honors

Program through a Special Major in Chinese, or through a major in Asian Studies. A Special Major in Chinese will consist of exams in Chinese language, literature, and culture. Work done abroad may be incorporated where appropriate. Interested students should consult with the Section Head in Chinese. Senior Honors Study is mandatory, and is to be arranged on an individual basis; candidates will receive up to one credit for completion of this work. Honors exams normally will consist of a 3-hour written exam and a 30 minute oral. Asian Studies majors should refer to the Bulletin entry for Asian Studies for further information.

Honors Minor in Chinese: It is possible to prepare for a minor in Chinese in the Honors program, in either Chinese language, or in Chinese literature in translation; work done abroad may be incorporated where appropriate. Interested students should consult with the Section Head in Chinese. Senior Honors Study is mandatory for a minor in Chinese, and is to be arranged on an individual basis; candidates will have the option of receiving one-half credit for completion of this work. The Honors exam for a minor in Chinese will consist of a 3-hour written exam and a 30 minute oral.

COURSES

1B-2B. Introduction to Mandarin Chinese.

An intensive introduction to spoken and written Mandarin Chinese, with emphasis on oral practice. Designed to impart an active command of basic grammar. Introduces 350 to 400 characters and develops the ability to read and write in simple modern Chinese.

Wu and Speidel.

3B, 4B. Second-year Mandarin Chinese.

Designed for students who have mastered basic grammar and 350 to 400 characters. Combines intensive oral practice with writing and reading in the modern language. Emphasis is on rapid expansion of vocabulary, idiomatic expressions, and thorough understanding of grammatical patterns. Prepares students for advanced study at the College and in China.

Chinese 4B is a Primary Distribution Course. Kong and Speidel.

11. Third-year Chinese.

Concentrates on strengthening and further developing skills in reading, speaking, and writing modern Chinese, through a diversity of materials and media. Classes conducted in Chinese, with precise translation also a component. To be taken in conjunction with Chinese 11A.

Prerequisite: Chinese 4B or equivalent language skills.

Primary distribution course.

Fall semester 1998. Berkowitz.

11A. Third-year Chinese Conversation.

A half-credit course concentrating on the further development of oral/aural skills in Chinese. Conducted entirely in Chinese. To be taken in conjunction with Chinese 11.

Fall semester 1998. Wu.

12. Advanced Chinese.

A multi-media course concentrating on greatly expanding skills in understanding and using modern Chinese in a broad variety of cultural and literary contexts, through a diversity of authentic materials in various media, including the Internet.

Prerequisite: Chinese 11 or equivalent language skills.

Primary distribution course.

Spring semester 1999. Berkowitz.

12A. Advanced Chinese Conversation.

A half-credit course concentrating on the further development of oral/aural skills in Chinese. Conducted entirely in Chinese.

Spring semester 1999. Wu.

16. Substance, Shadow, and Spirit in Chinese Literature and Culture.

This course will explore the literary and intellectual world of traditional Chinese culture, through original writings in English translation, including both poetry and prose. Topics to be discussed include: Taoism, Confucianism, and the contouring of Chinese culture; immortality, wine, and allaying the mundane; the religious dimension, disengagement, and the appreciation of the natural world, etc. The course also will address cultural and literary formulations of conduct and persona, and the expression of individualism in an authoritarian society.

No prerequisites; (Cross-listed as LITR 16CH.)

Primary distribution course.

Fall semester 1998. Berkowitz.

17. The Legacy of Chinese Narrative Literature: The Story in Dynastic China.

This course explores the development of diverse genres of Chinese narrative literature, through readings of original writings in translation. Readings include tales of the strange, biographies and hagiographies, moral tales, detective stories, literary jottings, drama, novellas and novels, masterworks of the Chinese literary tradition throughout the centuries of imperial China.

(Cross-listed as LITR 17CH.)

Not offered 1998-99. Berkowitz.

18. The Classical Tradition in Chinese Literature.

Exploration of major themes, ideas, writings, and literary forms that have contributed to the development of traditional Chinese civilization, through directed readings and discussions of English translations of original sources from early through medieval times.

No prerequisites, and no knowledge of Chinese or of China required.

(Cross-listed as LIT 18CH.)

Primary distribution course.

Not offered 1998-99. Berkowitz.

20. Readings in Modern Chinese.

This course aims to perfect the student's Mandarin Chinese skills, and at the same time to introduce a few major topics concerning Chinese literature and other types of writing since the May Fourth Movement.

Prerequisite: Three years of Chinese or its equivalent.

Fall semester 1998. Kong.

21. Topics in Modern Chinese.

Reading and examination of individual authors, selected themes, genres, time periods, for students with strong Chinese language proficiency. All readings, writing, and discussion in Chinese.

Spring semester 1999. Kong.

23. Modern Chinese Literature: A New Novellistic Discourse (1918-1948).

Modern Chinese literary texts created between

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1918 and 1948, presenting a series of political, social, cultural, and ideological dilemmas underlying twentieth century Chinese history. The class will discuss fundamental issues of modernity, and new literary developments under the impact of the May Fourth Movement.

(Cross-listed as LITR 23CH)

Not offered 1998-99. Kong.

25. Contemporary Chinese Fiction: Mirror of Social Change.

Literary narratives of post-Mao China in translation. The selected stories and novellas articulate the historical specificity of ideological dilemmas and cultural dynamics, in the imaginary process of dealing with love, politics, sex, morality, economic reform, and feminist issues.

(Cross-listed as LITR 25CH)

Not offered 1998-99. Kong.

33. Introduction to Classical Chinese.

Classical Chinese includes both the language of China's classical literature, as well as the literary language used for writing in China for well over two millennia until earlier this century. This course imparts the principal structures of the classical language through an analytical presentation of the rudiments of the language and close reading of original texts. The course is conducted in English; it is not a lecture course, and requires active, regular participation on the part of the student, with precise translation into English an integral component.

(Cross-listed as Linguistics 33.)

Fall semester 1998. Berkowitz.

55. Contemporary Chinese Cinema.

Cinema has become a special form of cultural mirror representing social dynamics and drastic changes in contemporary China. The course will develop a better understanding of changing Chinese culture through analyzing cinematic texts.

(Cross-listed as LITR 55CH)

Not offered 1998-99. Kong.

56. History of Chinese Cinema (1905-1995).

This course investigates Chinese cinema in its ninety year development throughout different political regimes and cultural milieus. Cinema

in China, as a twentieth century cultural hybrid of West and East, reflects social change and intellectual reaction, both collectively and individually, in a changing era. A study of the chosen cinematic texts, from silent film to the post-fifth generation filmmaker's films, will focus on the issues related to nationhood, gender, and modernity, along with the development of the cinematic discourse in China. All the films have English subtitles and all readings are in English. No previous preparation in Chinese is required. Open to the entire tri-college student body, and taught on the Bryn Mawr campus.

(Cross-listed as LITR 56CH)

Spring semester 1999. Kong.

63. Comparative Perspectives: China in the Ancient World.

Topics to be explored include obligation to self and society; individualism and the role of withdrawal; the heroic ethos; the individual and the cosmos; the individual and gender roles.

No prerequisites; no knowledge of Chinese required.

(Cross-listed as LITR 63CH.)

Not offered 1998-99. Berkowitz.

66. Chinese Poetry.

This course explores Chinese poetry and Chinese poetic culture, from early times to the present. While readings and discussion will be in English, and no knowledge of Chinese will be expected, an integral component of the class will be learning how to read a Chinese poem and learning a number of poems in the original.

(Cross-listed as LITR 66CH.)

Not offered 1998-99. Berkowitz.

81. Transcending the Mundane: Taoism in Chinese Literature and Culture.

Chinese civilization has been imbued with Taoism and Taoist topoi for some two and one-half millennia, from popular belief and custom to intellectual and literary culture. In addition to consideration of the texts and contexts of both philosophical and religious Taoism, the class will examine the articulation and role of Taoism in Chinese literature and culture, and the enduring implications of the Taoist ethos. All readings will be in English.

Prerequisite: one introductory course on

Chinese culture or religion, or permission of the instructor.

(Cross-listed as LITR 81CH.)

Spring semester 1999. Berkowitz.

91. Special Topics in Chinese Literature and Culture.

This course will concentrate on selected themes, genres, time periods, or critical problems in Chinese literature; all readings in English translation

(Cross-listed as LITR 91CH)

Not offered 1998-99.

93. Directed Reading.

SEMINARS

104. Lu Xun and Modern Chinese Literature.

105. Topics in Traditional Chinese Literature.

French

The purpose of the major is to acquaint students: (1) with important periods and principal figures of literatures written in French, (2) with the diversity of French-speaking cultures. It is intended to develop an appreciation of literary and cultural values, to provide training in critical analysis, and to foster an understanding of the socio-historical forces underlying these various literatures and cultures.

Current Course and Honors Program:

French may be offered as a major in the Course Program or as a major or minor in the Honors Program: a minor in French consists of 2 external examinations. (See below for new Honors Program.) Prerequisites for both Course and Honors students are as follows: 4, any course in the 12 sequence, the equivalent, or evidence of special competence.

Recommended supporting subjects: see the introductory departmental statement.

All majors including students preparing a Secondary School certificate are expected to spend at least one semester abroad in the Grenoble Program. Programs of study in other French-speaking countries may be substituted

upon request and with the approval of the French section.

Majors in the Course and Honors Programs, as well as minors in the Honors Program, are expected to be sufficiently proficient in spoken and written French to do all of their work in French, i.e., discussions and papers in courses and seminars, and all oral and written examinations, including comprehensive and Honors examinations.

Course majors are required to (a) take eight advanced courses numbered 3B or above; (b) study abroad; (c) take at least one advanced course in literature before 1800; (d) take one advanced Francophone course with a francophone component; (e) take one advanced course in civilization or culture; (f) take Special Topics in the Fall of senior year; (g) write a Senior research paper, 20 pages long, on an area of concentration chosen in conjunction with the section (this area can be defined broadly in terms of a genre or theme, as well as narrowly in terms of one author or text.) This paper will form the basis of an oral examination given in the Spring. The Senior Paper deadlines are as follows: Initial proposal and bibliography are due immediately after the Fall break. 1st draft is due to Director immediately after Thanksgiving break. Last draft is due to all French faculty end of spring break. Completed paper is due mid-April.

Courses and seminars in literature before 1800 are marked with a *, those with a Francophone component are marked with a #, and those in culture/civilization are marked with a +.

The Department also offers courses in French literature in translation, but no more than one such course may count to satisfy the requirements in the major. The French section is also offering a new Concentration in Francophone Studies in cooperation with other departments and programs abroad. See "Francophone Studies" for description of program and requirements.

New Honors Program in French:

Requirements: Majors and Minors in the Honors Program are expected to be sufficiently proficient in spoken and written French to complete all their work in French; i.e., discussions and papers, and all oral and written assignments. All Majors in Honors must complete at least one semester of study abroad in a

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French-speaking country. Minors must complete at least a six-week program of study in a French-speaking country. It is strongly recommended that they spend at least one semester abroad.

Candidates are expected to have a B average in course work both in the Department and at the College, and to have demonstrated interest in and aptitude for the study of literature or culture in the original language.

Prerequisites: In order to demonstrate the linguistic and analytical abilities necessary for seminar work, students must take the following before taking a seminar:

- 1) MAJOR: at least one advanced course in literature or culture (above French 20).
- 2) MINOR: at least two advanced courses in literature or culture (above French 20).

Preparations: Majors in the Honors program must do three preparations (consisting of 6 units of credit). Two of the preparations must be done through seminars. The third preparation may be a seminar, a two-credit thesis, or two paired courses chosen from a list available from the Department. Minors must do a single, two-credit seminar.

Senior Honors Study (French 199)

1) SEMINAR PREPARATION: At the end of the fall term, students will be given a list of questions related to the seminar. They will choose one question for each seminar and prepare a 2500 to 4000 word paper in French in response to that question. The preparation of this essay will not be supervised by members of the faculty. Conversation among students preparing these essays is encouraged, but each student must produce an independent, original essay of his or her own. The essays must be submitted to the department the first day of the written exam period, to be forwarded to the examiner.

The paper will form part of the student's portfolio.

2) PAIRED COURSE PREPARATION. A one-page prospectus on a topic that addresses and integrates the two courses in a meaningful way must be approved by the instructor of each of the courses by the end of the fall semester. Once the prospectus has been approved, the essay will not be supervised by members of the faculty. Conversation among students preparing these essays is encouraged, but each student

must produce an independent, original essay of his or her own. The essays must be submitted to the department the first day of the written exam period, to be forwarded to the examiner. The paper will form part of the student's portfolio.

Mode of examination:

A three hour written examination, and a one-half hour oral examination, both in French, will be required for each preparation.

Portfolio:

1. the syllabus of the seminar or paired courses
 2. the Senior Honors Study paper
-

COURSES

NOTE: Not all advanced courses are offered every year. Students wishing to major or minor in French should plan their program in consultation with the Department.

* = pre-1800

= Francophone

+ = culture/civilization

1B-2B, 3B Intensive French.

For students who begin French in college. Designed to impart an active command of the language. Combines the study of grammar with intensive oral practice, writing, and readings in literary and expository prose.

1B *Fall semester:* Moskos, Netter and Girard.

2B *Spring semester:* Moskos, Netter and Girard.

3B *Fall semester:* Netter and Girard.

4. Advanced French: *Nouvelles Voix Françaises (New French Voices)*.

Transformations in French culture, literature and society will be explored through literary texts as well as films, television programs and the press. Particular attention will be paid to perfecting analytical skills in written and spoken French.

Fall semester: Netter.

4A. French Conversation.

A half-credit conversation course concentrating on the development of the students' ability to speak French. May be repeated once for credit.

Prerequisite: For students presently or previ-

ously in French 3B or the equivalent Placement Test score.

Each semester. Girard.

12C. Literature and Culture of Québec. #, +

The course aims at perfecting oral and written expression skills through the exploration of the Francophone culture of Québec. The topics discussed (the Sixties revolution in Montréal; nationalism, language laws and ethnic minorities; the queer writings of Michel Tremblay and Nicole Brossard...) will also allow us to define key concepts for the study of literary texts within a cultural context.

Prerequisite: French 4, a score of 675 on the College Entrance Examination, or 5 on the AP Exam, or the equivalent with special permission.

Primary Distribution Course.

Fall semester 1998. Blanchard.

12C. France, Year "2000": Introduction Socio-Culturelle à la France Actuelle. #, +

A close look at some fundamental issues reflecting the rapidly changing dimensions of French culture and society today: the questioning of the concept of national identity; the new forms of social division and types of 'family' relations; the crucial problems faced by the young and the elderly; the complex position of an increasingly multicultural "Hexagon" within United Europe and a world of globalization; the nature of emergent forms of cultural production and the issue of modernité.

Prerequisite: French 4, a score of 675 on the College Entrance Examination, or 5 on the AP Exam, or the equivalent with special permission.

Primary Distribution Course.

Spring semester 1999. Lane.

12L. Introduction à l'analyse littéraire.

Close reading of various texts (prose fiction, plays, poetry) from and beyond the Hexagon as an introduction to the central concepts and modes of literature and literary analysis in French.

Prerequisite: French 4, a score of 675 on the College Entrance Examination, or 5 on the AP Exam, or equivalent, with permission of the instructor.

Note: 12L or 12C is required to take any other

French literature or culture courses.

Primary Distribution Course.

Fall semester 1998. Moskos.

20. Echanges.

Not offered 1998-99.

22. Le Cinéma français.

Not offered 1998-99.

23. Topics in French Civilization: Multi-Cultural France. #, +

A study of today's multicultural French society and of its new socio-cultural forms of production.

Not offered 1998-99. Lane.

24. Société et littérature: Cultures de l'exil. #, +

An introduction to the new and diverse profile of today's multicultural French society, the making of exile cultures, the confrontation between national traditions and immigrant ways of life, the resulting social and political issues and the new dimensions of 'French' identity. With an in-depth study of the coinciding new forms of artistic production and creativity in literature and the visual arts (film and comics) as well as a discussion of post-colonial aesthetics. Readings: works by new French writers, leading French social scientists, writers in exile and writers representing various minority groups in France.

Spring semester 1999. Lane.

25. Centers and Peripheries in the Francophone World. #, +

Team-taught interdisciplinary introduction to the French-speaking world and the historical relations between the countries that form it, with a comparative study of their specific cultural achievements. Intro course for the Francophone Studies Concentration. (In French with some lectures in English.)

Fall semester 1998. Lane with the participation of DuPlessis, Grant, Hungerford, Judson.

30. Topics in 17th and 18th Century Literature: Text and Visual Arts. *

An investigation into: the visuality of the text; the textuality of painting and art criticism.

Not offered 1998-99. Blanchard.

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33. Le Monde francophone: résistances et expressions littéraires. #, +

Study of the cultural and historical experiences of formerly colonized peoples as reflected in their respective literature.

(Cross-listed with Black Studies)

Not offered 1998-99. Rice-Maximin.

36. Poésie d'écritures françaises. #, *

A thematic study of poetry with an emphasis on both pre-18th Century hexagonal and contemporary African and Caribbean authors.

Not offered 1998-99. Rice-Maximin.

37. Ville et exclusion. #, +

An overview of the major social issues confronting today some of France's major cities which have become multicultural centers and some of their counterparts, outside of France.

Not offered 1998-99. Lane.

40. French Theatre and Cultural Studies.*

The course will explore: the works of Corneille, Racine, Molière and others; ideologies of a spectacle society in the light of post-modern theory.

(Cross-listed with Interpretation Theory)

Not offered 1998-99. Blanchard.

60. Le Roman du 19e Siècle.

A study of the main themes and technical innovations in narrative fiction as it reflects an age of great socio-political change. Based primarily on novels of Stendhal, Balzac, Flaubert and Zola.

Not offered 1998-99. Moskos.

61. Odd Couplings: Writing and Reading Across Gender Lines.

A comparative study of texts by men and women interrogates the role played by gender-identity construction in writing and reading.

Fall semester 1998. Moskos.

62. Le Romantisme.

The trauma of the Revolution of 1789 gave birth to the individual even as it put the very concept of individual agency into question. We will interrogate the theater, poetry and prose of this period as imaginary, sometimes almost magical, solutions to cultural, political and personal dislocations.

Spring semester 1999. Moskos.

65. Baudelaire and Symbolism.

Not offered 1998-99.

70. Théâtre Moderne: Beyond Realism: Meta-Theater in French and European Drama.

Not offered 1998-99.

70F. Caribbean and French Civilizations and Cultures. #, +

Study of the history of the French overseas departments with collateral readings of literary texts.

(See LITR 70F)

(Cross-listed with Black Studies)

Not offered 1998-99. Rice-Maximin.

71F. French Critical Discourse: From Barthes to Baudrillard.

An introduction to the major French theorists of post-modernity, focusing on the question of representation. Taught in English.

(Cross-listed with Interpretation Theory)

Fall semester 1999. Blanchard.

72. Le Roman du 20e Siècle.

Not offered 1998-99.

75F. Haïti, the French Antilles and Guyane in Translation.

Study of literary texts and their rewri[gh]ting of the local colonial history.

(Cross-listed with Black Studies)

Not offered 1998-99. Rice-Maximin.

75F. French Language Attachment to Haïti, the French Antilles and Guyane in Translation.

Not offered 1998-99. Rice-Maximin.

76. Femmes écrivains. #, *

A study of the work of women from Africa, the Caribbean, France and Québec. Material will be drawn from diverse historical periods and genres.

(Cross-listed with Black Studies)

Not offered 1998-99. Rice-Maximin.

77. Prose Francophone: littérature et société. #

Close readings and discussions of works from the first and the new generations of writers from the Francophone world. Topics will

include the impact of the oral tradition, aesthetics, politics and the role of the writer.

(Cross-listed with Black Studies)

Not offered 1998-99. Rice-Maximin.

78. Théâtre d'écritures françaises: conscience et société. #

Close examination of plays and their staging from and beyond the Hexagon.

(Cross-listed with Black Studies.)

Not offered 1998-99. Rice-Maximin.

79F. Scandal in the Ink: Lesbian/Gay Traditions in French Literature.

(Cross-listed as LITR 79F)

Not offered 1998-99. Moskos.

79F. French Language Attachment to Scandal in the Ink: Lesbian/Gay Traditions in French Literature.

Not offered 1998-99. Moskos.

80F. Cities and Ghettos in Europe: Comparative approaches to ethnic relations in Europe and America.

In an age of globalization, the social, economic, political and cultural marks of ethnically diverse societies are increasingly visible in Europe and North America. Cities are the privileged spaces of these encounters. Ethnic groups whose origins are continents apart are now neighbors, a phenomenon encapsulated in the paradox of "global cities." How far are these encounters producing similar experiences on both sides of the Atlantic? Do historical and political differences between states continue to shape distinctive patterns of ethnic relations in Europe and in the US? This course will adopt an interdisciplinary approach to these questions, bringing together disciplines ranging from sociology and political science to anthropology and cultural studies and will emphasize the particular cases of France, the US and Great Britain. Five main issues to be explored in the course: (1) Cities, ghettos and the sociology of knowledge, (2) Concentration, dispersion or segregation? (3) (Un)employment, (4) Political participation, (5) Cultural production.

(Cross-listed as LITR 80F and SOAN 42)

(Optional French Language Attachment)

Fall semester 1998. Azouz Begag (Cornell Visiting Professor).

91. Special Topics: Fashion and Literature. *, +

With the help of theorists such as Michel Foucault, Jean Baudrillard and Judith Butler, we will examine how clothes as described in literature perform sexual, ethnic and economic identities. Our inquiry, based on texts from Marguerite de Navarre, Montaigne, Molière, Diderot, Baudelaire, Zola, Mallarmé and Proust, will also help us in locating discontinuities in the history of the relation between style, text and the project of (post)-modernity.

Fall semester 1998. Blanchard.

93. Directed Reading.

SEMINARS

102. Baroque Culture and Literature. *

(Cross-listed with Interpretation Theory)

Not offered 1998-99. Blanchard.

104. Stendhal et Flaubert.

Not offered 1998-99. Moskos.

105. Proust.

Not offered 1998-99.

106. Poésie Symboliste.

Not offered 1998-99.

108. Le Roman du 20e siècle: Fictions, Myths, Ideologies from the Twenties to the Present.

Not offered 1998-99.

109. Le Romantisme.

Not offered 1998-99. Moskos.

110. Ecritures françaises hors de France: Fiction et réel. #

We will explore the relationships between fiction, history, and the real in a selection of texts from the French overseas departments.

Not offered 1998-99. Rice-Maximin.

111. Espaces Francophones: La Ville réelle et imaginaire. #, +

From Paris to Algiers, to Dakar, to the utopian city: a study of the francophone city as socio-historical space, center of artistic creativity, object of representation and metaphor, as viewed in literature, film and the visual arts. Texts will range from realist and surrealist nov-

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els to utopian narratives and new forms of fiction such as 'littérature de banlieue' and 'littérature de l'exil'. The course will cover different areas of the francophone world such as North Africa, West Africa, North America (Quebec and New England), Europe (France and Belgium) and South-East Asia, as well as various literary genres.

Fall semester 1998. Lane.

112. *Écritures francophones: Fiction and History in the French-speaking World.* #, +

Historical and literary examination of texts from Africa, the Caribbean and VietNam.

Not offered 1998-99. Rice-Maximin.

113. *Voyage et littérature: Exploration, nomadisme et migration.* #, +

A survey of the various forms of travel and displacements having shaped the history and daily life of various populations of the Francophone world: exploration, migration, nomadism, pilgrimages and other forms of adventure, mystery and quest. With an in-depth study of the various corresponding literary genres and forms of 'scientific' expression that developed between the 18th century and today: epic narrative, 'récit de voyage', picaresque novel and other forms of fiction as well as anthropological writing. From *Manon Lescaut*, to modern myths of the Sahara desert, to stories of rebellion against colonial invasions and exotic love stories resulting from the crossing of diverging cultures.

Spring semester 1999. Lane.

180. Thesis.

199. Senior Honors Study.

* = pre-1800

= Francophone

+ = culture/civilization

ficiently proficient in German to do written and oral work in German. To this end we strongly advise students to spend an academic semester in a German-speaking country before their senior year.

Requirements for the Major in Course:

1. completion of a minimum of eight credits in courses numbered 3B and above.
2. one of the eight credits may be taken in English from among the courses on German literature listed in the College Bulletin under Literature in Translation (e.g., LITR 37G).
3. Seniors in Course are required to (a) do German 91: Special Topics; (b) write a Comprehensive Examination based on the student's course work; (c) submit an extended, integrative paper (approximately 15 double-spaced pages in length) on a general literary topic agreed to by the Section. This paper, due before the date for the Comprehensive Examination, is complemented by a discussion of the paper with members of the Section, in German;
4. Majors in Course are encouraged to enroll for at least one seminar in the Junior or Senior year. (See the note on enrolling in seminars.)
5. After studying abroad, Majors must take two additional German classes.

Honors Program in German:

Requirements: Majors and Minors in the Honors Program are expected to be sufficiently proficient in spoken and written German to complete all their work in German. All Majors and Minors in Honors are strongly advised to spend at least one semester of study in a German-speaking country. Candidates are expected to have a B average in course work both in the Department and at the College.

Prerequisites:

Majors: German 13.

Minors: German 13 and one course numbered 50 or above.

Preparations:

Majors will prepare for exams by taking three seminars. With the approval of the department, it is possible to combine advanced one-credit courses or attachments, taken either at Swarthmore or elsewhere, to form a preparation.

German

German may be offered as a Major in Course or as a Major or Minor in the Honors Program.

See the introductory departmental statement for recommended supporting subjects and see also German Studies program description.

Courses and seminars in literature are conducted in German. Students are expected to be suf-

Minors will prepare for exams by taking one seminar.

Senior Honors Study and Mode of Examination:

For Senior Honors Study, students are required to present a 250-word outline (together with a bibliography by February 15, indicating how they intend to deepen (and when possible to integrate) their preparation for each seminar. The approved preparation in the form of a 1500-2000-word paper for each seminar, or, in the case of majors, an integrated paper of 3750-5000 words based on two or more seminars, will be added to the honors portfolio which will also include the seminar syllabi and student bibliographies.

The Honors Examination will take the form of a three hour written exam based on the seminar(s) and the one credit (one half credit for minors) SHS preparation, and a one hour oral panel exam based on the three written exams for majors; a one half-hour oral examination for minors.

COURSES

NOTE: Not all advanced courses or seminars are offered every year. Students wishing to major or minor in German should plan their program in consultation with the section. All courses numbered 50 and above are open to students after German 13. (See note on enrolling in Seminars.)

1B-2B, 3B. Intensive German.

For students who begin German in college. Designed to impart an active command of the language. Combines the study of grammar with intensive oral practice, writing, and readings in expository and literary prose. See the explanatory note on language courses above. Normally followed by 4, 13, or 14.

1B. *Fall semester.* Pavsek and Plaxton;

2B. *Spring semester.* Simon and Plaxton;

3B. *Fall semester.* Faber and Plaxton.

4. Writing and Speaking German.

Emphasis is on the development of communicative skills in speaking and writing and the consolidation of grammatical principles. Selected readings of general interest, newspaper and magazine articles, radio and TV pro-

grams, films as well as some literary texts. Recommended for students who plan to study in a German speaking country.

May be counted towards the Major in German and the Concentration in German Studies.

Spring semester. Faber.

5A. German Conversation.

A half-credit conversation course concentrating on the development of the students' speaking skills.

Prerequisite: German 4 in current or a previous semester or the equivalent Placement Test score.

Spring semester. Plaxton.

13. Introduction to German Literature.

A survey of German literature through close readings of canonical texts (prose, drama, poetry) from the late eighteenth century to the present. The selections will be read in the context of the artistic and socio-political developments of the era and include authors like Goethe, Tieck, Büchner, Keller, T. Mann, Kafka, Brecht, and Bachmann. While the main goal of the course is the development of skills in literary analysis, considerable attention will be given to writing skills and speaking German. Primary Distribution Course.

Fall semester. Werlen.

14. Introduction to German Studies: The Places of "Culture" in Twentieth Century Germany.

An introduction to major issues, methodologies and topics of the contemporary study of German 'culture' between 1900 and 1960. We will deal with a variety of 'media': essays, film, fiction, visual arts, philosophy and social history. Issues will include the question as to just what 'culture' is (an object, a sphere of society, a commodity, a disease, a social 'opiate', or what?); the role of cultural producers (filmmakers, writers...) and their products; how larger social processes and events are represented in culture (including representations of women, class struggle, social change, the advent of urban life).

Spring semester. Pavsek.

50. Zaubersprüche: deutsche Lyrik und Lieder.

The ancient German incantations called *Zaubersprüche* reveal the origin of lyric poetry

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in magic spells. In this course we will set these texts in their historical and social context, weigh their formal elements, use translation as a mode of interpretation, and explore the sparking interaction of words and music in settings of many of these texts. Readings will include poetry by Goethe, the Romantics, Bachmann and Sarah Kirsch.

Not offered 1998-99. Faber.

52. The Body Machine: Deconstructing the Body Politic in Postwar German Drama.

Contemporary German plays and stage productions have returned to the body as a contested site for the manifold constructions of the dramatic. This course will ask how the deconstruction of the body and of language in contemporary German drama relates to the public sphere today and to the traditional role of German theater as a political organ of enlightenment.

Not offered 1998-99. Simon.

54. Post-War German Cinema.

A study of (primarily west) German Cinema from the "rubble films" of the immediate post-war period, through the advent of the New German Cinema in the sixties, to the present state of German film in the "post-wall" era.

(Cross-listed as LITR 54G.)

Not offered 1998-99. Pavsek.

68. The 68 Generation in Germany.

The course traces the historical, political, cultural, and literary itinerary of the first generation born in Germany after WWII and coming to maturity in the late 60s and 70s.

Not offered 1998-99.

77. Literature of Decadence.

Symbolist, fin-de-siècle, and modernist understandings of the evolution of civilization; the themes of intellectual and spiritual crisis, the "decline of the West," "art for art's sake" in European poetry, drama and fiction during the decades 1880-1920.

(See LITR 77G.)

To be offered 1999-00. Werlen.

88. Frauen und Film.

This course emphasizes both the representation of women in German literature and film, and more particularly the work of female film

directors and writers, examining the question of women's subjectivity against the background of changing political and historical realities in twentieth century Germany.

Spring semester. Faber.

91. Special Topics.

Study of individual authors, selected themes, or critical problems. The topic for Spring 1999 will be Frauen und Film (see description above)

Spring semester. Faber.

93. Directed Reading.

SEMINARS

Five German seminars are normally scheduled on a rotating basis. Preparation of topics for Honors may be done by particular courses plus attachments only when seminars are not available.

NOTE: Students enrolling in a seminar are expected to have done the equivalent of at least one course beyond the German 13 level.

104. Goethe und seine Zeit.

A study of Goethe's major works in the context of his life and times.

Not offered 1998-99. Werlen.

105. Die deutsche Romantik.

Romanticism as the dominant movement in German literature, thought, and the arts from the 1790's through the first third of the 19th century. Focus on Romantic aesthetics and poetics, including the influence of German Idealism.

Not offered 1998-99.

108. Wien und Berlin. (German Studies Seminar).

This course will examine the multiple tensions that characterized "fin-de-siècle" Vienna and Berlin.

To be offered 1999-00. Simon.

109. Rise of the Modern German Novel.

This seminar will discuss the development of the modern German novel from Gustav Freytag through late Thomas Mann. Novelists to be read include Freytag, Fontane, T. Mann, H. Mann, Marlitt, Döblin, Keun, Kafka, Musil,

and Jünger. Topics addressed are: realism and modernism, the Brecht/Lukacs debate, the "Krise des Romans", advent of the proletarian novel, left/right-wing modernism, and influence of mass-culture and film.

Spring semester. Pavsek.

110. German Literature after World War II.

The aim of the seminar is to acquaint students with literary developments in the German speaking countries after the end of World War II. The survey of texts will address questions of "Vergangenheitsbewältigung" and social critique in the 50s, the politicization of literature in the 60s, the "Neue Innerlichkeit" of the 70s, and literary postmodernity of the 80s. We will also study the literature of the German Democratic Republic and texts dealing with post-wall, unified Germany. Authors included are Böll, Eich, Grass, Frisch, Bachmann, Handke, Bernhard, Jelinek, Strauss, Wolf, Delius, Plenzdorf, Süskind, Menasse.

Fall semester. Werlen.

199. Senior Honors Study.

Russian

Russian may be offered as a major in the Course Program or as a major or minor in the Honors Program. Prerequisites for both Course students and Honors candidates are: Russian 4B, 11, and 13, or equivalent work.

Recommended supporting subjects: see the introductory department statement.

Russian is the language of instruction in all courses and seminars numbered 3B and above (except Russian 11 and 13). Course majors are required to take Special Topics (Russian 91) and are expected to take at least two seminars. One inter-disciplinary or cross-departmental course might be offered toward the Course major requirements. The Comprehensive Examination is based on work completed in courses and seminars numbered 11 and above.

Honors Program in Russian Language and Literature:

Majors:

Prerequisites:

1. At least one (1) semester of study in Russia
2. Russian 4B

3. Russian 11 (or a comparable course in Russian)

4. Russian 13 and Russian 78 or Russian 79, or Russian 80 or another advanced literature course in another language (e.g. Chinese 18, Chinese 66, French 40, French 60, German 77, Spanish 60, Spanish 77)

5. Minimum grade for acceptance into the Honors program: B- level work in courses taken at Swarthmore in language and in the introductory literature course Russian 11 or its equivalent.

Minors:

Prerequisites:

1. At least one (1) semester of study in Russia.

2. Russian 4B

3. Russian 11 (or a comparable course in Russian)

4. Russian 13 or Russian 78 or Russian 79 or Russian 80 or another advanced literature course in another language (e.g. Chinese 18, Chinese 66, French 40, French 60, German 77, Spanish 60, Spanish 77)

5. Minimum grade for acceptance into the Honors program: B- level work in courses taken at Swarthmore in language and in the introductory literature course Russian 11 or its equivalent.

Senior Honors Study:

At the beginning of their final semester seniors will meet with the Russian section head. (1) In consultation with the section head *majors* will prepare during the first four weeks of the last semester a bibliography of additional readings related to the content of their three (2 credit) honors preparations. *Majors* will be expected to write three (3) 2,500-3,000 word papers, one for each Honors preparation, as expanded upon and extended by the spring senior Honors study work, or a 7,500 word paper which integrates the three honors preparations as they have been expanded upon and extended by the spring senior Honors work. These 3 papers (or 1 long paper) will become part of the portfolio which will be presented to the External Examiners along with the syllabi of the three (2 credit) Honors preparations and any other relevant material. (2) In consultation with the section head *minors* will prepare during the first four weeks of the last semester a bibliography of additional readings related to the con-

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tent of their one (2 credit) honors preparation. *Minors* will be expected to write one (1) 2,500 word paper which expands upon and extends the single honors preparation and integrates it with the major honors program, wherever possible. This paper will become part of the portfolio which will be presented to the examiner along with the syllabus of the one (2 credit) honors preparation and any other relevant material. (3) *Mode of Examination: Majors* will be expected to take three (3) three hour written examinations prepared by the External Examiners as well as an ½ hour oral for each based on the contents of each written examination and the materials submitted in the portfolio. *Minors* will be expected to take a three hour written examination prepared by the External Examiner as well as an ½ hour oral examination based on the contents of the written examination and the materials submitted in the portfolio.

COURSES

NOTE: Not all advanced courses or seminars are offered every year. Students wishing to major or minor in Russian should plan their program in consultation with the Department. Course majors are required to do Special Topics.

1-2. Russian Reading and Translation.

For students who wish to acquire the fundamentals of Russian grammar and a reading knowledge of the language. This course is designed especially for those students in the Social and Natural Sciences who seek to read and translate scholarly, scientific materials in the original.

1B-2B, 3B. Intensive Russian.

For students who begin Russian in college. Designed to impart an active command of the language. Combines the study of grammar with intensive oral practice, writing, and readings in literary or expository prose. See the explanatory note on language courses above. Normally followed by 4B, and 11.

1B. Owen and Katsenelinboigen;

2B. Owen and Katsenelinboigen;

3B. Forrester and Katsenelinboigen.

4B. Advanced Intensive Russian.

For majors and those primarily interested in perfecting their command of language. Advanced conversation, composition, translation, and stylistics. Considerable attention paid to writing skills and speaking. Readings include short stories and newspapers. Conducted in Russian.

Spring semester 1999. Forrester and Katsenelinboigen.

6A. Russian Conversation.

A ½ credit conversation course which meets once a week for 1½ hours. Students will read journals and newspapers and see films as part of their preparation for conversation.

Prerequisite: 4B in current or a previous semester or permission of instructor.

Spring semester 1999. Katsenelinboigen.

11. Introduction to Russian Culture.

An interdisciplinary introduction to Russian culture and the field of Slavic Studies, with visiting lectures from Tri-College faculty in relevant disciplines: Anthropology, Architecture, Economics, Folklore, History, Literature, Music, Sociology. Readings, lectures and discussions in English. An optional fourth hour attachment (for additional one-half credit) supplements the course for Russian majors or minors, with readings and discussion in Russian.

Primary distribution course.

Fall semester 1998. Owen and Katsenelinboigen.

13. The Russian Novel.

The rise of the Russian novel in the 19th century during the struggle against serfdom and the transition to an urban industrial society and revolution in the 20th century. The quest for freedom and social justice in a moral society with particular emphasis on the works of Gogol, Turgenev, Dostoevsky, Tolstoy, Bulgakov, and Solzhenitsyn. Lectures and readings in English. (Russian majors will be required to read a part of the material in Russian.)

(see LITR 13R.)

No prerequisite.

Primary distribution course.

Fall semester 1998. Bradley.

15. Russian and East European Prose.

Novels and stories by the most prominent 20th-century writers of this multifaceted and turbulent region. Analysis of individual works and writers with the purpose of approaching the religious, linguistic and historical diversity of Eastern Europe in an era of war, revolution, political dissent and outstanding cultural and intellectual achievement. Readings, lectures and discussion in English; qualified students may do some readings in the original language(s).

(See LITR 15R.)

Primary distribution course.

Spring semester 1999. Forrester.

16. History of the Russian Language.

An introductory course. A study of the origin of the Russian language and its place among the other modern Indo-European and Slavic languages. The uses of philology and linguistics for the ideological and stylistic analysis of literary texts.

Satisfies the linguistics requirement for teacher certification.

Not offered 1998-99. Forrester.

91. Special Topics.

(For senior majors.) Study of individual authors, selected themes, or critical problems.

Spring semester 1999. Staff.

93. Directed Reading.

SEMINARS**101. Tolstoy.****102. Russian Short Story.****103. Pushkin and Lermontov.****104. Dostoevsky.****105. Literature of the Soviet Period.****106. Russian Drama.****107. Russian Lyrical Poetry.****108. Russian Modernism.****109. Chekhov.**

Spring semester 1999. Bradley.

110. Bulgakov.**111. The Hysterical Poets: Tsvetaeva and Mayakovsky.****112. The Acmeists.****113. Tolstoy: Philosophy and Religion in Russian Literature.****114. Folklore in Russian Literature.**

Fall semester 1998. Forrester.

Spanish

Requirements for the major are the following:

(1) the completion of at least one semester of study in a Spanish-speaking country in a program approved by the Spanish Section; (2) the completion of a minimum of 8 credits of advanced work in courses numbered 3B and above; (3) one of these courses must be 11 or 13; (4) one of the eight credits of advanced work may be taken in English from among those courses listed in the College Bulletin under Literatures in Translation, provided that it is a course pertinent to the student's major; (5) all majors are strongly encouraged to take at least one seminar offered by the Section.

The Honors Program in Spanish:

Candidates for the major or minor in Spanish must meet the following requirements *prior* to being accepted for the program in Honors: (a) a B average in Spanish course work at the College; (b) the completion at Swarthmore of either Spanish 11 or 13 *and* one course numbered above 13; (c) the completion of at least one semester of study in a Spanish speaking country in a program approved by the Spanish Section; and (d) demonstrated linguistic ability in the language. Students may represent fields for external examination based on any of the following: (1) two credit seminars offered by the Section or (2) the combination of two advanced courses numbered above thirteen that form a logical pairing. All majors in the Honors program must do three preparations for a total of six units of credit while all minors must complete one preparation consisting of two units of credit.

Seniors Honors Study:

At the beginning of their final semester, seniors (both minors and majors) will meet with their respective instructors whose course work reflects their preparation for external

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examination. On the basis of these consultations, the student will prepare a bibliography of additional readings related to either their six (major) or two (minor) credit preparation during the first four weeks of the semester. *Majors* will write three research papers of 2,500 words each, one for each field of honors preparation or, if they choose, a 7,500 word paper in which they integrate their three fields of study for honors. This paper (papers) will become part of the student's portfolio to be presented to the External Examiners along with the syllabi of their honors preparation. *Minors* will write one research paper of 2,500 words which expands upon their single honors preparation and, where possible, integrates it with their major honors program. This paper will become part of the student's portfolio to be presented to the examiner along with the syllabi of the two credit honors preparation. It should be noted that the preparation of these papers will not be supervised by members of the faculty. All essays must be submitted to the Head of the Section no later than the first day of the written exam period, so that they may be forwarded to the examiner. All majors will receive one (1) unit of credit and all minors a half (½) unit of credit for the completion of their Senior Honors Study.

Mode of Examination:

Majors will take three (3) three-hour written examinations prepared by the external examiners as well as three (3) half-hour oral exams based on the contents of each field of preparation and the materials contained within the student's portfolio. Minors will take one (1) three-hour written examination prepared by the external examiner as well as one (1) half-hour oral exam based on the contents of the written examination and the materials contained in the student's portfolio. All exams will be conducted exclusively in Spanish.

COURSES

NOTE: Not all advanced courses are offered every year. Students wishing to major in Spanish should plan their program in consultation with the Department.

1B-2B, 3B. Intensive Spanish.

For students who begin Spanish in college.

Designed to impart an active command of the language. Combines the study of grammar with intensive oral practice, writing, and readings in literary or expository prose. See the explanatory note on language courses above. Normally followed by 4B, 11, or 13.

2B-2. Intensive Spanish.

Offered in the Fall semester to students who have had at least a year of Spanish.

4B. Intensive Spanish.

For majors and others who wish an advanced language course. Much attention paid to pronunciation, writing skills, speaking, and the most difficult concepts of Spanish grammar. An ideal course prior to study abroad.

Each semester.

6A. Spanish Conversation.

A ½ credit conversation course which meets once a week for 1½ hours. The class will be divided into small groups to facilitate discussion. Students are required to read newspapers and other contemporary journals, see movies, read plays which might be performed for and by the class, and prepare assignments which will generate conversation among the group.

Prerequisite: 4B or its equivalent, or permission of instructor.

Each semester. Friedman.

11. Introduction to Spanish Literature.

A study of representative fiction, poetry, and drama of the 19th and 20th centuries. Discussions, papers.

Prerequisite: Spanish 4B, the equivalent, or permission of instructor.

Primary Distribution Course.

Fall semester 1998. DeGrado, Parrack.

13. Introduction to Spanish American Literature.

This course presents a selection of texts from the mid-nineteenth century until today. Students develop skills in literary analysis, increase their power to speak and write Spanish, and acquire a foundation for the future exploration of Latin America's literary production. Readings include narrative, essays and poetry representing the romantic, naturalist, realist, modernist, vanguardist, and other contemporary trends, studied in their historical context.

Prerequisite: Spanish 4B or its equivalent, or permission of instructor.

Primary Distribution Course.

Spring semester 1999. Camacho de Schmidt.

NOTE: Spanish 11 or 13, the equivalent, or consent of instructor is prerequisite for the courses in literature that follow:

43. Multiculturalismo y subversión en Cervantes.

Many of Cervantes's works offer up unique representations of cultures that were considered as "other" in the literary world of Renaissance Spain— from the "low" culture of the picaros and gypsies to the exotic cultures of different regions of Spain and Europe. In this course we will not only observe these cultural representations, but also examine their possible functions (both literary and ideological) in Cervantes's works. Texts include several "Novelas ejemplares" and "Entremeses" as well as selected passages from "Don Quijote" and "Persiles and Sigismunda."

Spring semester 1999. Parrack.

66. Escritoras españolas del siglo 19 y 20.

The course will explore the literary production that results from the struggle of 19th century women such as Gertrudis Gómez de Avellaneda, Carolina Coronado, Rosalía de Castro, Cecilia Böhl de Faber and Emilia Pardo Bazán to use the pen as a means of self expression and freedom, to the works of postwar authors such as Carmen Laforet, Ana María Matute, Mercé Rodoreda and the contemporary ones, Carmen Martín Gaité, Montserrat Roig, Esther Tusquets and others.

Fall semester 1999. Guardiola.

72. La novela española de la democracia: pluralidad y destrucción del canon.

The new generations of Spanish novelists are prolific, and their production shows a great variety of narrative expression, finally free of censorship at the end of the Franco dictatorship. Works by Eduardo Mendoza, Antonio Muñoz Molina, Carmen Martín Gaité, Rosa Montero, Montserrat Roig, Carmen Riera, Julio Llamazares and others.

Fall semester 1998. Parrack.

76. Grandes voces de América: la poesía del siglo XX.

Latin America has produced some of the great poets of this century. Reflecting a specific New World history and geography, the work of these foundational poets also searches for what it means to be human. Texts by Vallejo, Huidobro, Neruda, Guillén, Paz, Borges, Parra, Mistral, Cardenal, and Alegría.

Spring semester 2000. Staff.

78. La novela social de México.

From the Mexican Revolution of 1910 to the North American Free Trade Agreement and the Zapatista uprising of 1994, Mexico has struggled for democracy, justice and modernization. Throughout the century, Mexico's narrative has explored social conflict in urban and rural settings, among Indigenous or mestizo communities, from the perspective of political activists or intellectuals, men or women. Texts are selected from works by Azuela, Yáñez, Guzmán, Campobello, Revueltas, Rulfo, Castellanos, Fuentes, Poniatowska, Leñero, Garro, Montemayor, Molina, Gardea and Boullosa.

Spring semester 1999. Camacho de Schmidt.

80. La narrativa chilena desde el golpe militar.

This course will explore the literary responses of Chilean intellectuals to the more than sixteen years of military dictatorship under Augusto Pinochet. Emphasis will be given to the socio-historical context of the period and of the novels and short stories to be read. Authors will include both those who remained in Chile after the coup in 1973 and those who were forced into exile. Works by Hernán Valdés, José Leandro Urbina, Pía Barros, Antonio Skármeta, Elizabeth Subercaseaux, Paulina Matta, Isabel Allende, Alberto Fuguet and Poli Délano.

Fall semester 1998. Hassett.

82. La mujer mirando al hombre: Escritoras hispanoamericanas del siglo XX.

The course will examine both novels and short stories written by Latin American women writers whose principal focus is upon men and the social, political and economic structures that they have fostered as well as the response of women to such structures. Writers will include

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María Luisa Bombal, Isabel Allende, Luisa Valenzuela, Angeles Mastretta, Pía Barros, Paulina Matta, Rosario Ferré and others.

Fall semester 1999. Hassett.

Courses to be offered in subsequent years:

41. Obras maestras de la Edad Media y del Renacimiento.

67. La guerra civil española en la literatura y el cine.

70. Rebelión y renovación artística: el modernismo y la generación del 98.

71. Literatura española contemporánea.

74. Literatura española de posguerra.

77. La novela hispanoamericana del siglo XX.

79. El cuento hispanoamericano.

83. El tirano latinoamericano en la literatura.

85. Narrativa hispánica contemporánea de los Estados Unidos.

106. Visiones narrativas de Carlos Fuentes.

107. Héroes y villanos: el siglo XIX español y la democratización literaria.

108. La narrativa de Isabel Allende: la escritura como sobrevivencia.

After a brief introduction to the important position by this Chilean writer in the fiction of the "post-boom," this seminar will examine all of her prose fiction. A major theme running through these texts from *La casa de los espíritus* to her most recent *Paula* is the use of the pen as a defense against both historical and personal tragedy.

Spring semester 1999. Hassett.

109. Unamuno o el hambre de Dios.

SEMINARS

Students wishing to take seminars must have completed at least one course in Spanish numbered 30 or above or obtained permission from the instructor.

101. La novela hispanoamericana del siglo XX.

102. Cervantes.

103. La guerra civil española.

104. La narrativa de Marie Vargas Llosa.

105. Federico García Lorca.

We will examine the masterful literary production of this internationally known Spanish writer who speaks to the "outcasts". Lorca's work synthesizes traditionally Spanish themes and values with contemporary European trends. The readings will cover different periods and genre's of Lorca's literary production. Poetry such as *Romancero Gitano*, *Poeta en Nueva York* and dramatic works including *Doña Rosita la soltera*, *Yerma*, *La casa de Bernarda Alba*, *Bodas de sangre* and others.

Spring semester 2000. Guardiola.

Music and Dance

JAMES FREEMAN, Professor of Music

SHARON E. FRIEDLER, Professor of Dance, Director of the Dance Program

GERALD LEVINSON, Professor of Music

ANN K. McNAMEE, Professor of Music and Chair

JOHN ALSTON, Associate Professor of Music

MICHAEL MARISSIN, Associate Professor of Music

THOMAS WHITMAN, Assistant Professor of Music (part-time)³

KIM D. ARROW, Assistant Professor of Dance (part-time)

SALLY HESS, Assistant Professor of Dance (part-time)²

LA DEVA DAVIS, Associate in Performance (Dance)

DOROTHY K. FREEMAN, Associate in Performance (Music)

DOLORES LUIS GMITTER, Associate in Performance (Dance)

SARAH IOANNIDES, Associate in Performance (Music)

MICHAEL JOHNS, Associate in Performance (Music)

C. KEMAL NANCE, Associate in Performance (Dance)

PAULA SEPINUCK, Adjunct Associate in Performance⁵

JON SHERMAN, Associate in Performance (Dance)

LEAH STEIN, Associate in Performance (Dance)

JUDY LORD, Administrative Assistant

ORCHESTRA 2001, ENSEMBLE IN RESIDENCE

2 Absent on leave, spring semester, 1999.

3 Absent on leave, 1998-99.

5 Spring semester, 1999.

MUSIC

The study of music as a liberal art requires an integrated approach to theory, history, and performance, experience in all three fields being essential to the understanding of music as an artistic and intellectual achievement. Theory courses train the student to work with musical material, to understand modes of organization in composition, and to evolve methods of musical analysis. History courses introduce students to methods of studying the development of musical styles and genres, and the relationship of music to other arts and areas of thought. The Department encourages students to develop performing skills through private study and through participation in the Chorus, Early Music Ensemble, Jazz Ensemble, Orchestra, Wind Ensemble, and chamber music coaching program which it staffs and administers. The Department also assists instrumentalists or singers to finance the cost of private instruc-

tion. Up to 16 half-credits may be granted toward graduation.

Major in the Course Program: Two semester courses in theory and one semester course in history are prerequisite for acceptance as a major. Majors will normally take five semester courses in theory (including Music 15, 16, or 17), four semester courses in history (including Music 20 and either 21 or 22), meet the basic piano requirement, pass five repertory exams, and pass the comprehensive exam. Majors participate in at least one of the Department's performing organizations.

Major in the Honors Program: A student intending to major in the Honors Program will fulfill the same prerequisites as listed above, will pass five repertory exams beginning with the class of 1998, will meet the basic piano requirement, and will normally submit three preparations (including at least one preparation in theory and one in history), subject to departmental approval. Senior Honors Study in Music may

Music and Dance

take the form of a thesis, a composition portfolio, a senior recital, or a combination of the above. Any Theory/Composition course numbered 15 or higher, or any history course, can be used as the basis of a paper when augmented by a concurrent or subsequent attached unit of additional research, or by directed reading, or by a tutorial.

Minor in the Honors Program: A student intending to minor in the Honors Program will fulfill the same prerequisites as those for a major in course, will meet the basic piano requirement, and will normally submit one preparation in music. For further details consult the guidelines for Honors Study available in the Department office.

Language Requirements for Graduate Schools: Students are advised that graduate work in music requires a reading knowledge of French and German. A reading knowledge of Latin is also desirable for students planning to do graduate work in musicology.

Proficiency on an instrument: All majors in music will be expected to play a keyboard instrument well enough by their senior year to perform a two-part invention of J.S. Bach and a first movement of an easy late-18th or early-19th century sonata. In addition, they must demonstrate skill in score reading and in realizing figured basses. The Department recommends that majors take two semesters of Music 42 to develop these skills.

The basic piano program: This program is designed to develop keyboard proficiency to a point where a student can effectively use the piano as a tool for study and also to help students meet the keyboard requirements outlined above. It is open to any student enrolled in a theory course numbered 11 or higher. No academic credit is given for basic piano.

Special scholarships and awards in music include:

The Garrigues Music Awards: See p. 75.

The Fetter String Quartet Scholarships: See p. 29.

The Renee Gaddie Award: See p. 75.

Music 48 Special Awards: See p. 77.

Friends of Music and Dance Summer Awards: See p. 75.

The Boyd Barnard Prize: See p. 74.

The Peter Gram Swing Prize: See p. 78.

The Melvin B. Troy Prize: See p. 78.

CREDIT FOR PERFORMANCE

NOTE: All performance courses are for half-course credit per semester. A total of not more than eight full credits (16 half-credit courses) in Music and Dance may be counted toward the degrees of Bachelor of Arts and Bachelor of Science. No retroactive credit is given for performance courses.

Individual Instruction (Music 48)

Music Majors and members of the Wind Ensemble, Chorus, Early Music Ensemble, Gamelan, Gospel Choir, Jazz Ensemble, and Orchestra may, if they wish, take lessons for credit. Instrumentalists for whom opportunities do not exist in the above ensembles may qualify for Music 48 by taking part in the Department's Program for Accompanists. For further details consult the Music 48 guidelines available from the Department office.

Students who wish to take Music 48 (Individual Instruction) must register for the course and submit an application to the Department at the beginning of each semester. Forms are available in the Department office. Although it is necessary to be a member in good standing of a Department performance group or the Gospel Choir, it is not necessary to be registered for credit in that performing group.

A student applying for Individual Instruction should be at least at an intermediate level of performance. The student will arrange to work with a teacher of her/his choice, subject to the approval of the Department, which will then supervise the course of study and grade it on a credit/no credit basis. Teachers will submit written evaluations, and the student will perform for a jury at the end of the semester and submit to the faculty a short paper on the piece to be performed at the jury. The Department will then decide whether the student should receive credit, and whether the student may re-enroll for the next semester.

For students enrolled in Music 48, approximately one-third of the cost of ten lessons will be paid by the Department to the teacher. Section leaders in the Chorus and Orchestra and Majors receive subsidies of two-thirds the cost of ten lessons. Gaddie, Fetter, Garrigues and other scholarships may subsidize up to the entire cost of private lessons for the more musically advanced students at the College.

All students enrolled in Music 48 are strongly encouraged to perform in student chamber music concerts and to audition for concertos with the Orchestra and solos with the Chorus.

Orchestra, Chorus, Wind Ensemble, Early Music Ensemble, Gamelan, Chamber Music, Jazz Ensemble, and Keyboard Workshop

Students may take Performance Chorus (Music 44), Performance Orchestra (Music 43), Performance Jazz Ensemble (Music 41), Performance Wind Ensemble (Music 46), Performance Early Music Ensemble (Music 45), Chamber Music (Music 47), Gamelan (Music 49), or Keyboard Workshop (Music 50) for credit with the permission of the Department member who has the responsibility for that performance group. The amount of credit received will be a half-course in any one semester. Students applying for credit will fulfill requirements established for each activity, i.e., regular attendance at rehearsals and performances and participation in any supplementary rehearsals held in connection with the activity. Students are graded on a credit/no credit basis.

Students taking Music 47 (Chamber Music) for credit should submit to the Department at the beginning of the semester a repertoire of works to be rehearsed, coached, and performed during the semester. It should include the names of all students who have agreed to work on the repertoire, the names of all coaches who have agreed to work with them, and the proposed dates for performance in a student chamber music concert.

A student taking Music 47 for credit will rehearse with her/his group(s) at least two hours every week and will meet with a coach at least every other week. All members of the group should be capable of working well both independently and under the guidance of a coach, also capable of giving a performance of high quality. It is not necessary for every person in the group to be taking Music 47 for credit, but the Department assumes that those taking the course for credit will assume responsibility for the group, making sure that the full group is present for regular rehearsals and coaching sessions.

Students taking the Keyboard Workshop (Music 50) will develop and refine skills in accompanying and sight-reading through work with the chamber, song, and four-hand repertoire.

COURSES AND SEMINARS

1. Introduction to Music.

This course is designed to teach intelligent listening to music by a conceptual rather than historical approach. Although it draws on examples from folk music and various non-Western repertoires, the course focusses primarily on the art musics of Europe and the United States. Prior musical training is not required.

Open to all students without prerequisite.

Spring semester. Marissen.

2. Fundamentals of Music.

Notation, scales, keys, chords, and sight reading. Strongly recommended as preparation for (or concurrent with) all upper-level music courses.

Fall semester. Alston.

3. Jazz History.

This course traces the development of jazz from its roots in West Africa to the free styles of the 1960s. Included are the delineation of the various styles and detailed analysis of seminal figures. Emphasis is on developing the student's ability to identify both style and significant musicians.

Open to all students without prerequisite.

Primary distribution course.

Not offered 1998-99.

4. Opera.

A survey of the history of opera, with special emphasis on and study of scenes from selected works. For those with vocal abilities, the course will include preparation of specific scenes, but it is open to students with no particular performance skills and no prior musical experience.

Fall semester. J. Freeman.

5. Music as Social History.

This course will explore folk music, including African-American music from the slavery period and after, as the expression of the life experience, collective history, and aspirations of the people from whom it springs.

Not offered 1998-99.

6. Beethoven and the Romantic Spirit.

An introduction to Beethoven's compositions in various genres.

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Not offered 1998-99.

7. W.A. Mozart.

Study of Mozart's compositions in various genres and of the peculiar interpretive problems in Mozart biography.

Open to all students without prerequisite.

Primary distribution course in the Humanities.

Fall semester. Marissen.

8. The Music of Asia.

An introduction to selected musical traditions from the vast diversity of non-western cultures. The music will be studied in terms of both its purely sonic qualities and its cultural/philosophical backgrounds.

Open to all students without prerequisite.

Primary distribution course.

This course counts toward a program in Asian studies.

Spring semester. Levinson.

10. Women in Music: Composers.

This course traces some of the contributions made by women composers to the art of music from the Middle Ages to the present.

Not offered 1998-99. See Music 35.

THEORY AND COMPOSITION

Students who anticipate taking further courses in the Department or majoring in Music are urged to take Music 11 and Music 12 as early as possible. Placement exams are given each year at the first meeting of that course for students who feel they may be able to place out of it. Majors will normally take Music 11, 12, 13, 14, and one of 15, 16, or 17 in successive years.

11. Harmony and Counterpoint 1.

Musical exercises include harmonic analysis and four-part choral style composition.

Prerequisite: knowledge of traditional notation, major/minor scales, ability to play or sing at sight simple lines in treble and bass clef.

One section of Music 40A per week, without additional credit, is required. In addition, students with minimal keyboard skills are

required to take basic piano.

Fall semester. McNamee.

12. Harmony and Counterpoint 2.

Written musical exercises include composition of original materials as well as commentary on excerpts from the tonal literature.

Prerequisite: Music 11 (or the equivalent).

One section of Music 40B per week, without additional credit, is required. Basic piano is also required for some students.

Spring semester. Staff.

13. Harmony and Counterpoint 3.

Continued work with tonal harmony and counterpoint at an intermediate level. Detailed study of selected works with assignments derived from these works, as well as original compositions.

Prerequisite: Music 12 (or the equivalent).

One section of Music 40C per week, without additional credit, is required. Basic piano is also required for some students.

Fall semester. Levinson.

14. Harmony and Counterpoint 4.

Advanced work with chromatic harmony and tonal counterpoint.

Prerequisite: Music 13.

One section of Music 40D per week, without additional credit, is required. Basic piano is also required for some students.

Spring semester. Levinson.

15. Harmony and Counterpoint 5.

Detailed study of a limited number of works both tonal and non-tonal, with independent work encouraged.

Prerequisite: Music 14.

Spring semester. McNamee.

16. Schenker.

An introduction to Schenkerian analysis. An extension of traditional analytical techniques, incorporating Schenker's principles of voice leading, counterpoint, and harmony.

Prerequisite: Music 14.

Not offered 1998-99.

17. History of Music Theory.

A survey of primary sources (in translation) from Boethius, Tinctoris, and Zarlino

through Rameau, Riemann, and Schoenberg.

Prerequisite: Music 14.

Not offered 1998-99.

18. Conducting and Orchestration.

A study of orchestration and instrumentation in selected works of various composers and through written exercises, in combination with practical experience in conducting, score reading, and preparing a score for rehearsal and performance.

Spring semester. J. Freeman.

19. Composition.

Fall and spring semesters. Levinson.

61. Jazz Improvisation.

A systematic approach that develops the ability to improvise coherently, emphasizing the Bebop and Hard Bop styles exemplified in the music of Charlie Parker and Clifford Brown.

Not offered 1998-99.

HISTORY OF MUSIC

20. Medieval and Renaissance Music.

A survey of European art music from the late Middle Ages to the sixteenth century. Relevant extra-musical contexts will be considered.

Prerequisite: a knowledge of traditional notation.

Fall semester. Marissen.

21. Baroque and Classical Music.

A survey of European art music from the sixteenth-century Italian madrigal to Beethoven's Eroica symphony. Relevant extra-musical contexts will be considered.

Prerequisite: a knowledge of traditional notation.

Not offered 1998-99.

22. Nineteenth-Century Music.

The development of the "Romantic Style" from late Beethoven and Schubert to Wagner and Verdi.

Prerequisite: a knowledge of traditional notation.

Spring semester. J. Freeman.

23. Twentieth-Century Music.

A study of the various stylistic directions in music of the 20th Century. Representative works by composers from Debussy, Stravinsky, and Schoenberg, through Copland, Messiaen, and post-war composers such as Boulez and Crumb, to the younger generation, will be examined in detail.

Prerequisite: a knowledge of traditional notation.

Not offered 1998-99.

32. History of the String Quartet.

A history of the string quartet from its origins to its development into one of the genres of Western classical music. The course will focus on the quartets of Haydn, Mozart, and Beethoven.

Prerequisite: a knowledge of traditional notation.

Not offered 1998-99.

33. The Art Song.

A study of various solutions by various composers to the problems of relating poetry and music.

Not offered 1998-99.

34. J.S. Bach.

Study of Bach's compositions in various genres. For the instrumental music this involves close consideration of style and signification. For the vocal music it also involves study of ways Bach's music interprets, not merely expresses, his texts.

Prerequisite: a knowledge of traditional notation.

Spring semester. Marissen.

35. Women Composers and Choreographers.

A survey of women choreographers and composers. Choreographers range from Sallé and Duncan through Graham, Tharp and Zollar, composers from Hildegard through Zwilich. Topics include form, phrasing, text and social/political comment. Open to all students. One credit.

Spring semester. Friedler/McNamee.

36. Music Since 1945.

A study of contemporary concert music, including such composers as Messiaen,

Music and Dance

Crumb, Boulez, Cage, Babbit, Carter, Lutoslawski, Ligeti. Electronic music, collage, chance and improvisation, and minimalism will also be examined, as well as the current trends toward Neo-Romanticism and stylistic pluralism.

Not offered 1998-99.

37. Contemporary American Composers.

A study of the works and thought of six important American composers. The course will stress intensive listening and will include discussion meetings with each of the composers.

Prerequisite: a knowledge of traditional notation.

Not offered 1998-99.

38. Color and Spirit: Music of Debussy, Stravinsky, and Messiaen.

A study of twentieth-century music focusing on the great renewal of musical expressions, diverging from the Austro-German classic-romantic tradition, found in the works of these three very individual composers, as well as the connections among them, and the resonances of their music in the work of their contemporaries and successors.

Prerequisite: a knowledge of traditional musical notation.

Not offered 1998-99.

39. Music and Dance: Criticism and Reviewing.

This course, team taught by music and dance faculty with supplemental visits by guest lecturers who are prominent in the field of reviewing, will cover various aspects of writing about the performance of music and dance: previewing, reviewing, the critic's role and responsibilities, and the special problems of relating performance to the written word.

Prerequisite: One previous course in music or dance, concurrent enrollment in a music or dance course, or permission of the instructor.

Not offered 1998-99.

92. Independent Study.

93. Directed Reading.

95. Tutorial.

Special work in composition, theory, or history.

One or two credits.

96. Senior Thesis.

One or two credits.

99. Senior Honors Recital.

Honors music majors who wish to present a senior recital as one of their Honors preparations must register for Music 99, after consultation with the Music faculty. See Honors program guidelines.

SEMINARS

100. Harmony and Counterpoint 5.

See Music 15.

(One-credit seminar equivalent to a two-credit seminar.)

Prerequisite: Music 14.

Spring semester. McNamee.

101. J.S. Bach.

See Music 34.

Study of Bach's compositions in various genres, examining music both as a reflection of and formative contribution to cultural history.

(One-credit seminar equivalent to a two-credit seminar.)

Prerequisites: Music 11 and German 1B (higher levels in both strongly recommended; Religion 18 also recommended), or permission of instructor.

Spring semester. Marissen.

102. Color and Spirit: Music of Debussy, Stravinsky, and Messiaen.

(See Music 38).

(One-credit seminar equivalent to a two-credit seminar)

Prerequisite: Music 13 (concurrent enrollment possible by permission of the instructor).

Not offered 1998-99.

103. Russian Music.

A survey of Russian music from the early 19th century (Glinka) through Mussorgsky, Tchaikovsky, Borodin, Rimsky, and into the 20th century: Scriabin, Stravinsky, Prokofief, Shostakovich, Schnittke, Gubaidulina, Ustvolskaya.

Prerequisite: Music 11-12.

Fall semester. J. Freeman.

199. Senior Honors Study.

One-half credit for music majors and minors in the Honors Program.

PERFORMANCE

(Half-credit courses)

NOTE: The following performance courses are for half-course credit per semester. See p. 236 for general provisions governing work in performance for credit toward graduation.

40A. Elements of Musicianship I.

Sight-singing, rhythmic and melodic dictation. Required for all Music 11 students without credit. Also open to other students for half-credit.

Fall semester. McNamee.

40B. Elements of Musicianship II.

Prerequisite: Music 40A.

Sight-singing, rhythmic and melodic dictation. Required for all Music 12 students without credit. Also open to other students for half-credit.

Spring semester. Staff.

40C. Elements of Musicianship III.

Prerequisite: Music 40B.

Sight-singing, rhythmic and melodic dictation. Required for all Music 13 students without credit. Also open to other students for half-credit.

Fall semester. Ioannides.

40D. Elements of Musicianship IV.

Prerequisite: Music 40C.

Sight-singing, rhythmic and melodic dictation. Required for all Music 14 students without credit. Also open to other students for half-credit.

Spring semester. Ioannides.

41. Performance (Jazz Ensemble).

Meets Monday nights.

Both semesters. Alston.

42. Keyboard Musicianship.

Both semesters.

43. Performance (Chorus).

Both semesters. Alston.

44. Performance (Orchestra).

Meets Thursday nights.

Both semesters. Ioannides.

45. Performance (Early Music Ensemble).

Both semesters. Marissen.

46. Performance (Wind Ensemble).

Both semesters. Johns.

47. Performance (Chamber Music).

(See guidelines for this course on page 237.)

Both semesters. D. Freeman.

48. Performance (Individual Instruction).

(See the guidelines for this course on page 236.) Specific and updated guidelines are distributed at the beginning of each semester.

Both semesters.

49. Performance (Balinese Gamelan).

Performance of traditional and modern compositions for Balinese Gamelan (Indonesian percussion orchestra). Students will learn to play without musical notation. No prior experience in Western or non-Western music is required; open to all students with the instructor's approval.

Both semesters. Whitman.

50. Keyboard Workshop.

Developing and refining skills in accompanying and sight-reading through work with the chamber, song, and four-hand repertoire.

Not offered 1998-99.

71. Rhythmic Analysis and Drumming.

Cross-listed as Dance 71.

Spring semester. Arrow.

72. Asian Performance Theory: Indonesia, China, Japan: Looking at the East through Western Eyes.

Cross-listed as Dance 72.

Not offered 1998-99.

Music and Dance

DANCE

Dance, a program within the Department of Music and Dance, shares the Department philosophy that courses in theory and history should be integrated with performance. By offering a balance of cognitive, creative, and kinesthetic classes in dance we present a program which stands firmly within the tradition of Swarthmore's liberal arts orientation. The instructors strive to create an atmosphere of cooperative learning; one which affirms group process and fosters comradery.

Special Major: Dance and a second discipline

Students may combine the study of dance with substantive study in another discipline. The two disciplines in this major may be philosophically linked or may represent separate areas of the student's interest. Some examples are: English, history, linguistics, music, philosophy, religion, sociology/anthropology, and theatre. For this major, 6 dance credits from the core program listed below are joined by 6 credits in one other discipline. Such special majors require the approval of the dance program and the other department involved. Planning for these majors should take place as early in the student's program as possible; students are encouraged to develop their plans in consultation with the Director of Dance and with a faculty advisor in the other discipline.

Special majors are urged to supplement their study with appropriate courses in anatomy, art, history, music, sociology/anthropology, theatre, religion, and other areas of concentration such as various ethnic studies and women's studies.

Required Courses

The core program of 6 credits includes the following courses:

2 in composition/improvisation (Dance 12 or Dance 14 [1 cr.] and Dance 10 [$\frac{1}{2}$ cr.] or Dance 71 [$\frac{1}{2}$ cr.]),

2 in history/theory (one from Dance 21-24 [1 cr.] and one from 36-39 [1 cr.]),

3 in performance technique (Dance 50 [$\frac{1}{2}$ cr.], one other technique at the 50 level [$\frac{1}{2}$ cr.], and one additional technique other than Dance 60 [$\frac{1}{2}$ cr.]). It is strongly suggested that special majors continue to develop their performing skills by regular attendance in dance technique classes beyond this requirement.

1 senior project and/or thesis (Dance 94, 95, or 96 [1 cr.]).

Major or Minor in the Honors Program

A major or minor in dance through the Honors Program is also available for students in the class of 1997 and onward. Please consult dance faculty for further information and guidelines.

Performance Dance: Technique

In a typical semester over twenty-five hours of dance technique classes are offered on graded levels presenting a variety of movement styles. Technique courses, numbered 40 through 48, 50 through 58, and 60 or 61, may be taken for academic credit or may be taken to fulfill physical education requirements. Advanced dancers are encouraged to audition for level III technique classes and for Dance Repertory (Dance 49). A total of not more than eight full credits (16 half-credit courses) in performance dance technique classes and in music performance classes may be counted toward the degrees of Bachelor of Arts and Bachelor of Science. No retroactive credit is given for performance classes.

Dance Program Performance Opportunities

All interested dancers are encouraged to audition for student and faculty works. These auditions take place several times each semester; dates are announced in classes and in the Weekly News. Formal concerts take place toward the end of each semester; informal studio concerts are scheduled throughout the year.

The Program in Dance regularly sponsors guest artist residencies which in 1998-99 will include: the Nile Ethiopian Ensemble, the Stephen Petronio Dance Co., and Silesian Dance Theatre of Poland.

Scholarships and Awards

Scholarships for summer study in dance are available through funds provided by The Friends of Music and Dance. The Halley Jo Stein Award for Dance and The Melvin B. Troy Award for Composition are also awarded annually by the Department.

Additional information about the dance program is available via the World Wide Web at <http://www.swarthmore.edu/humanities/dance/>.

INTRODUCTORY COURSES

1. Introduction to Dance.

A survey course that approaches dance viewing and analysis of dance performance through an introduction to elements of dance composition and history. The roles of choreographer, performer, and audience in various cultures are compared and investigated using theoretical and practical experiences. No prior dance training is assumed; open to all students without prerequisite. Two lectures and one video viewing session per week. One credit.

Primary distribution course.

Fall semester 1998. Friedler.

2. World Dance Forms.

A survey course which introduces students to theoretical and practical experiences in dance forms from various cultures and time periods through a combination of lectures, readings, video and film viewings, and workshops with a wide variety of guest artists from the field. The particular forms will vary each semester but may include such styles as: various African, Asian, and Native American forms, Capoeira, Flamenco, and European court dancing. Open to all students; no prior dance training required. One credit.

Primary distribution course.

9. Music and Dance of Africa.

An introduction to selected musical and dance traditions of Africa. This course will involve all students in the practice of dancing and drumming as well as in the study of those forms through lectures, reading, listening, and viewing. No prior musical or dance training required.

10. Dance Improvisation.

Designed as a movement laboratory in which to explore the dance elements: space, time, force, and form. Members of the class will investigate improvisation as a performance technique and as a tool for dance composition. Individuals work on a personal vocabulary and on developing a sense of ensemble. A journal and paper are required, and a course in dance technique is strongly recommended. Three hours per week. One half credit.

Fall semester 1998. Friedler/Hess.

COMPOSITION/HISTORY/THEORY COURSES

11. Dance Composition I.

A study of the basic principles of dance composition through exploration of the elements of dance movement, invention, and movement themes, to the end of developing an understanding of various choreographic structures. Considerable reading, video and live concert viewing, movement studies, journals, and a final piece for public performance in the Troy dance lab are required. Also required is a production lab which includes an introduction to costuming, lighting, set construction, sound and video in relation to dance. A course in dance technique must be taken concurrently.

Prerequisite: Dance 10, Dance 71 or permission of the instructor.

One credit.

Spring semester 1999. Arrow.

12. Dance Composition II.

An elaboration and extension of the material studied in Dance 11. Stylistically varying approaches to making work are explored in compositions for soloists and groups. Reading, video and live concert viewing, movement studies, journals, and a final piece for public performance which may include a production lab component are required. A course in dance technique must be taken concurrently. Students must have previously taken Dance 11 or its equivalent. One credit.

Fall semester 1998. Hess.

13. Dance Composition: Tutorial.

Designed as a tutorial for students who have previously taken Dance 11 or the equivalent. Choreography of a final piece for public performance is required. Weekly meetings with the instructor and directed readings, video and concert viewings. A journal may also be required. A course in dance technique must be taken concurrently. One half credit.

Fall semester: Hess. Spring semester: Friedler.

14. Special Topics in Dance Composition.

A course which focuses on intensive study of specific compositional techniques and/or subjects. Topics may include: autobiography, dance and text, partnering, interdisciplinary collaboration, reconstruction, and technology. Choreography of a final piece for performance

Music and Dance

is required. Weekly meetings with the instructor, directed readings, video and concert viewing, and a journal will be required. A course in dance technique must be taken concurrently.

Prerequisite: Dance 11.

Three hours per week. One credit.

Spring semester. Arrow/Friedler.

21. History of Dance: Africa and Asia.

This course will move through an exploration of dance forms from Africa, from Africanist cultures and from Asian cultures, from the perspectives of stylistic characteristics, underlying aesthetics, resonances in general cultural traits, and developmental history. The course will occasionally focus on one dance style for close examination. Study will be facilitated by guest lecturers, specialists in particular dance forms from these cultures.

Prerequisite: Dance 1 or 2. Two lectures and one hour video viewing per week. One credit.

22. History of Dance: Europe's Renaissance Through 1900.

A study of social and theatrical dance forms in the context of various European societies from the Renaissance through the nineteenth century. Influential choreographers, dancers, and theorists representative of the periods will be discussed.

Prerequisite: Dance 1 or 2; Dance 24 strongly recommended. Two lectures and one hour video viewing per week. One credit.

23. Twentieth Century Dance.

A study of Twentieth Century social and theatrical dance forms in the context of Western societies with an emphasis on America. Influential choreographers, dancers, and theorists will be discussed.

Prerequisite: Dance 1 or 2; Dance 21 and 22 strongly recommended. Two lectures and one hour video viewing per week. One credit.

Fall semester 1998. Arrow.

24. Dance as Social History.

This course focuses on dance as a locus for discussing power relations through gender, race, and class in the period from 1880 to 1928 in Europe, North America, the Caribbean, and South America. Analysis of a variety of dance forms in their historical/cultural context.

Prerequisite: Dance 1, 2, or permission of the instructors.

Three hours per week. One credit.

35. Women Choreographers and Composers

A survey of women choreographers and composers. Choreographers range from Sallé and Duncan through Graham, Tharp and Zollar, composers from Hildegard through Zwilich. Topics include: form, phrasing, text and social/political comment. Open to all students. One credit.

Spring semester 1999. Friedler/McNamee.

36. Dance and Gender.

This course explores ways that gender has informed dance, particularly performance dance, since 1960. The impact of various cultural and social contexts will be considered. Lectures, readings, and video/concert viewings will all be included.

Prerequisite: Dance 1, 2, or permission of the instructor.

One credit.

37. The Politics of Dance Performance.

An investigation of the aesthetic principles of perception, symbolism, abstraction, and creativity in relation to the viewing and interpretation of dance performance. Emphasis will be placed on political interpolation and ramifications of the act of public performance. Topics of discussion will include the "politically correct" paradox, government funding, art as cultural intervention, and various historical perspectives. Open to all students without prerequisite. One credit.

39. Music and Dance: Criticism and Reviewing.

(Cross-listed as Music 39.) This course, team taught by music and dance faculty with supplemental visits by guest lecturers who are prominent in the field of reviewing, will cover various aspects of writing about the performance of music and dance: previewing, reviewing, the critic's role and responsibilities, and the special problems of relating performance to the written word.

Prerequisite: One previous course in music or dance, concurrent enrollment in a music or dance course, or permission of the instructor.

DANCE TECHNIQUE COURSES

Note: Technique courses may be taken for ½ academic credit or may be taken for physical education credit.

40. Performance Dance: Modern I.

An introduction to basic principles of dance movement: body alignment, coordination, strength and flexibility, basic locomotion. No previous dance experience necessary.

Fall semester: Friedler/Arrow.

Spring semester: Staff.

41. Performance Dance: Ballet I.

An introduction to fundamentals of classical ballet vocabulary: correct body placement, positions of the feet, head and arms, basic locomotion in the form. No previous experience necessary.

Fall and spring semesters. Sherman.

43. African Dance I.

Introduction to African Dance aims to give students a rudimentary vocabulary in African-oriented movement. Using the Umfundalai technique, African Dance I heightens students' understanding of the aesthetic and eurhythmic principles prevalent in African Dance. Students who take African I for academic credit should be prepared to keep a weekly journal and write two short papers.

Fall and spring semesters. Nance.

44. Performance Dance: Tap.

This course is available to all tappers, from beginning to advanced. Such forms as soft-shoe, waltz-clog, stage tap, and "hoofin" will be explored.

Spring semester. Davis.

45. Performance Dance: Hatha Yoga.

Open to all students, the course will focus on experience/understanding of a variety of asanas (physical postures) from standing poses to deep relaxation. Following the approach developed by B.K.S. Iyengar, its aim is to provide the student with a basis for an ongoing personal practice. If taken for academic credit, required reading and one paper.

Fall semester. Hess.

48. Performance Dance: Special Topics in Technique.

Intensive study of special topics falling outside

the regular dance technique offerings. Topics may include such subjects as: Alexander technique, Classical East Indian Dance Forms, Contact Improvisation, Jazz, Pilates, and/or Musical Theatre Dance.

Section 1. Spring semester 1999.

Contact Improvisation, Stein.

Section 2. Fall semester.

Flamenco, Gmitter.

49. Performance Dance: Repertory.

The study of repertory and performance. Students are required to perform in at least one scheduled dance concert during the semester. Placement by audition or permission of the instructor. One half credit. Three hours per week. A course in dance technique must be taken concurrently.

Offered every semester.

Fall 1998: Section 1: Dancing and Drumming Ensemble, Arrow/Friedler. Draws on a variety of dancing and drumming traditions from around the world as well as creating new hybrid forms. In 1998, beginning with a focus on Ghanaian forms. Open to all students.

Fall 1998: Section 2: Tap, Davis.

Spring 1999: Section 1: Modern, Staff.

Spring 1999: Section 2: African, Nance.

50. Performance Dance: Modern II.

An elaboration and extension of the principles addressed in Dance 40A and B. For students who have taken Dance 40A and B or the equivalent.

Fall semester: Friedler/Arrow.

Spring semester: Staff.

51. Performance Dance: Ballet II.

An elaboration and extension of the principles addressed in Ballet I. For students who have taken Ballet I or its equivalent.

Fall and spring semesters. Sherman.

53. African Dance II.

African Dance for Experienced Learners gives students an opportunity to strengthen their technique in African Dance. The course will use the Umfundalai technique allied with some traditional West African Dance forms to enhance students' learning. Students who take African Dance II for academic credit should be prepared to explore and access their own choreographic voice through a choreographic

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project.

Fall and spring semesters. Nance.

55. Performance Dance: Hatha Yoga II.

Open to students who have completed Dance 45 or the equivalent. A continuation and deepening of practice of the asanas explored in Dance 45. Work in several of the more advanced asanas, particularly in the backward-bending and inverted poses.

58. Performance Dance: Special Topics in Technique II.

An elaboration and extension of principles addressed in Dance 48.

Permission of the instructor required.

Spring 1999: Section 1: Flamenco, Gmitter.

60. Performance Dance: Modern III.

Continued practice in technical movement skills in the modern idiom; including approaches to various styles. Placement by audition or permission of the instructor.

Fall semester: Arrow/Hess.

Spring semester: Staff.

61. Performance Dance: Ballet III.

Continued practice in technical movement skills in the ballet idiom; with an emphasis on advanced vocabulary and musicality. Placement by audition or permission of the instructor.

Fall and spring semesters. Sherman.

CROSS-LISTED COURSES

70. The Arts as Community Service/Social Change.

(Cross-listed as Education 70.) An experiential course exploring how the arts can impact and reflect on issues of community, service, education, and social/political change. The course includes several aspects: readings and discussions on the meaning of community, service, art, and educational policy and methodology; personal reflections; classes led by guest activists and artists discussing their work with a variety of communities and from a wide range of approaches. Three on site visits to community arts organizations in the area, a short internship with an approved organization, group practice sessions, and three papers are also required. Open to sophomores and above.

Limited enrollment. One credit.

Spring 1999. Sepinuck.

71. Rhythmic Analysis and Drumming.

(Cross-listed as Music 71.) A theoretical and practical analysis of rhythmic structure applying techniques of Afro-Cuban drumming and East Indian rhythmic theory. For the general student, emphasis will place the investigation of rhythmic structure within a cultural and contemporary context. For students of dance, additional focus will be provided on the uses of drumming in dance composition, improvisation and as accompaniment in the teaching of dance technique. Open to all students. Three hours per week. One half credit.

Spring semester. Arrow.

ADVANCED INDEPENDENT WORK

92. Independent Study.

Available on an individual basis, this course offers the student an opportunity to do special work with performance or compositional emphasis in areas not covered by the regular curriculum. Students will present performances and/or written reports to the faculty supervisor, as appropriate. Permission must be obtained from the program director and from the supervising faculty. One credit.

Offered every semester. Staff.

93. Directed Reading.

Available on an individual or group basis, this course offers the student an opportunity to do special work with theoretical or historical emphasis in areas not covered by the regular curriculum. Students will present written reports to the faculty supervisor. Permission must be obtained from the program director and from the supervising faculty. One credit.

Offered every semester. Staff.

94. Senior Project.

Intended for seniors pursuing the special major or the major in Honors, this project is designed by the student in consultation with a dance faculty advisor. The major part of the semester is spent conducting independent rehearsals in conjunction with weekly meetings under an advisor's supervision; the project culminates in a public presentation and the student's written

documentation of the process and the result. An oral response to the performance and to the documentation follows in which the student, the advisor, and several other members of the faculty participate. In the case of Honors majors, this also involves external examiners. Proposals for such projects must be submitted to the dance faculty for approval during the semester preceding enrollment. One credit.

Offered every semester. Staff.

95, 96. Senior Thesis.

Intended for seniors pursuing the special major or the major in Honors, the thesis is designed by the student in consultation with a dance faculty advisor. The major part of the semester is spent conducting independent research in conjunction with weekly tutorial meetings under an advisor's supervision. The final paper is read by a committee of faculty or, in the case of Honors majors, by external examiners who then meet with the student for evaluation of its contents. Proposals for a thesis must be submitted to the dance faculty for approval during the semester preceding enrollment. One or two credits.

Offered every semester. Staff.

199. Senior Honors Study.

A close study of a single dance work, from the multiple points of view of dance history, compositional analysis and/or performance. One credit.

Offered every semester. Staff.

Peace and Conflict Studies

Chair: **HUGH LACEY** (Philosophy)
Committee: **Amanda Bayer** (Economics)
Wendy E. Chmielewski (Peace Collection)
Miguel Diaz-Barriga (Sociology-Anthropology)
J. William Frost (Religion)
Lisa Hajjar (Sociology-Anthropology)
Raymond F. Hopkins (Political Science)³
Colin Leach (Psychology)
Deepa Ollapally (Political Science)¹

¹ Absent on leave, fall semester, 1998.

³ Absent on leave, 1998-99.

The Peace and Conflict Studies Concentration at Swarthmore College is designed to teach students to understand the causes, practices, and consequences of collective violence (war), terrorism, and peaceful or nonviolent methods of conflict management and resolution. The multidisciplinary curriculum offers instruction in the following areas: (1) alternatives to fighting as a way of settling disputes: conflict resolution, rituals, nonviolence, mediation, peace-keeping forces, private peace-fostering organizations (NGOs), arms control, economic sanctions, international law, international organizations; (2) the political economy of war: the "military-industrial" complex, economic conversion; (3) causes of collective violence: aggression and human nature, the state system and international anarchy, systemic injustice, the psychology of prejudice, balance of power diplomacy, competition for scarce resources, diplomacy, ethnocentrism, ideological and religious differences, insecure boundaries, minorities within states, the relationship between internal weakness and aggression, arms races, game theory; (4) nature of war: civilian and military objectives; draft and conscientious objectors; deterrence theory; low-intensity conflict; prisoners of war; neutral rights; conventional, nuclear, and guerrilla wars; how to end a war; and effects of winning/losing a war on population; (5) the evaluation of war: morality of war, just war theory, pacifism, the war mentality, the utility of war, responsibilities of citizens in countries engaged (directly or indirectly) in warfare, how to build a lasting peace.

The Peace Studies Concentration consists of six courses of which only two may be taken in the student's major. Introduction to Peace Studies (P.S. 15), offered yearly, is the only required course. While a thesis or final exercise is required, it can be non-credit. For honors students, the external examination and the Senior Honors Study (SHS) may serve as the final exercise.

Student programs can include an internship or field work component, e.g., in a peace or conflict management organization such as the United Nations or Suburban Dispute Settlement. An internship is highly recommended. Normally field work or internship will not receive college credit, but for special projects—to be worked out with an instructor and approved by the Peace Studies Committee in advance—students can earn up to one credit.

Students intending a Peace and Conflict Studies concentration should submit a plan of study to the coordinator of the program during the spring of the sophomore year, after consultation with faculty members who teach in the concentration. The plan will outline the student's program of study and the nature of the final project. Applications will then be considered by the Committee.

The Peace Studies minor in the honors program can be done through a combination of two courses in different departments, or a two-credit thesis, or a combination of a thesis and a course. Introduction to Peace Studies (P.S. 15) is required and should be taken no later than the junior year. A thesis or final exercise is

required. Any thesis must be multi-disciplinary. A combination of courses, course and thesis, or thesis must be approved by the Peace Studies Committee.

Any student minoring in Peace Studies must meet the requirement of six units of study, of which no more than two credits can come from the major department. Students wishing to count a seminar in their major or minor for part of their Peace Studies concentration should fulfill the department's prerequisites and take the appropriate examination.

Students whose minor in Peace Studies can be incorporated into the final requirements for SHS in the major should do so. The Peace Studies Committee will work out with the student and the major department the guidelines or model for the integration exercise. In cases where the Committee and the student conclude that integration is not feasible and/or desirable, the Committee will provide a reading list of books.

These courses, either currently listed in the College catalogue or planned, will constitute the foundation for a Peace and Conflict Studies Concentration. Peace Studies Courses courses offered at Haverford and Bryn Mawr that do not duplicate Swarthmore College courses may count toward the concentration pending prior approval by the Peace Studies Committee. These courses are listed in the catalogues of Bryn Mawr and Haverford.

PEACE STUDIES

Peace Studies 15. Introduction to Peace Studies.

The course begins with an examination of perspectives on the causes of war using many disciplines (including biology, psychoanalysis, history, political science, anthropology, and economics), then considers various governmental and private organizations and methods supposed to alleviate the causes of war. Topics to be discussed include the United Nations, international law, arms control, disarmament, and the work of NGOs for peace.

Prerequisite: a course in history or political science dealing with foreign policy or war, a course in religion, sociology, or psychology discussing the ethics of war and causes of conflict.

This course can be counted for distribution as a Social Science unit, but it is not a primary distribution course. Normally it may not be used to fulfill any department's major requirements.

Spring semester. Frost.

Economics 12. Games and Strategies.

History 28. Nations and Nationalism in Eastern Europe: 1848-1989.

Political Science 4. International Politics.

Political Science 45. Defense Policy.

Psychology 26. Prejudice and Social Relations.

Psychology 45. Psychology of Oppression and Resistance.

Religion 6. War and Peace.

Religion 107. Liberation Theology.

Sociology/Anthropology 40. Gender Politics in the Third World.

Sociology/Anthropology 82. Law and Society: The Discourse of Rights in the U.S.

70. Research Internship/Field Work.

90. Thesis.

Not offered 1998-99.

Peace Studies 30. Nonviolence and Social Change.

Peace Studies 40. Peace Movement in the United States: Women and Peace.

Peace Studies 56. Human Rights, Refugees and International Law.

History 37. History and Memory: The Holocaust and German Culture.

History. 49. Race and Foreign Affairs.

History 134. American Diplomatic History.

Political Science 47. Politics of Famine and Food Policy.

Political Science 62. Development and Discontent: Crisis of Political Economy in the Third World.

Political Science 111. International Politics. Seminar.

Peace and Conflict Studies

Religion 26B. Buddhist Social Ethics.

Religion 110. Religious Belief and Moral Action.

Sociology/Anthropology 3. Social Conflict and Social Change.

Sociology/Anthropology 33. Indigenous Resistance and Revolt in Latin America.

Sociology/Anthropology 34. Ecology, Peace and Development in El Salvador.

Sociology/Anthropology 55. Power, Authority, and Conflict.

Bryn Mawr College and Haverford College:
For specific Peace Studies courses consult the institution's catalogue.

Philosophy

RICHARD ELDRIDGE, Professor³
HUGH M. LACEY, Professor
HANS OBERDIEK, Professor
CHARLES RAFF, Professor
RICHARD SCHULDENFREI, Professor, Acting Chair
TAMSIN LORRAINE, Associate Professor
GRACE LEDBETTER, Assistant Professor
DAVID BARTON, Visiting Assistant Professor
JACQUELINE ROBINSON, Administrative Assistant

3 Absent on leave, 1998-99.

Philosophy addresses fundamental issues, views that tend to be presupposed in the activity of other disciplines and in daily life: the nature of knowledge, meaning, reasoning, morality, the character of the world, God, freedom, human nature, and history. The study of philosophy thus impinges on issues of significance for everyone who wishes to live and act in a reflective and critical manner.

COURSE OFFERINGS AND PREREQUISITES

The Philosophy Department offers several kinds of courses, all designed to engage students in philosophical practice. First, there are courses and seminars to introduce students to the major classics of the history of Western philosophy: works by Plato and Aristotle (Ancient Philosophy); Descartes, Hume, and Kant (Modern Philosophy); Hegel and Marx (Nineteenth Century Philosophy); Russell and Wittgenstein (Contemporary Philosophy). Second, there are courses and seminars which systematically present arguments and conclusions in specific areas of philosophy: Theory of Knowledge, Logic, Ethics, Metaphysics, Social and Political Philosophy. Third, there are courses and seminars concerned with the foundations of various other disciplines: Aesthetics, Philosophy of Science, Philosophy of Language, Philosophy of Law, Philosophy of the Social Sciences, Philosophy of Psychology, Philosophy of Mathematics, and Philosophy of Religion. Fourth, from time to time, courses are offered on philosophical aspects of contempo-

rary public issues: Values and Ethics in Science and Technology, Methodologies of the Study of Poverty. Courses and seminars in the third and fourth categories are frequently offered in collaboration with instructors from other relevant departments; several of these courses are cross-listed in other departments.

The Department of Philosophy participates in a special major in linguistics. The interested student should consult the Linguistics Program.

Students majoring in philosophy must complete at least one course or seminar in (1) Logic and (2) Ancient or Modern Philosophy and earn a total of eight credits in courses or seminars (not counting Senior Course Study or Senior Honors Study). In addition, students majoring in philosophy are strongly urged to take courses and seminars in areas of: moral, social, and political philosophy; epistemology; and metaphysics. Prospective majors should complete the logic requirement as early as possible. Course majors are encouraged to enroll in seminars. Mastery of at least one foreign language is recommended. All course majors will complete Senior Course Study in Philosophy.

Satisfactory completion of either any section of Philosophy 1, Introduction to Philosophy, or Logic, Philosophy 12 is a prerequisite for taking any further course in philosophy. All sections of Introduction to Philosophy are primary distribution courses in the Humanities. Students may not take two different sections of Introduction to Philosophy, with one exception: the section of Introduction to Philosophy that focuses on the philosophy of science may

Philosophy

be taken after completing another section of Introduction to Philosophy.

1. Introduction to Philosophy.

Philosophy addresses fundamental questions that arise in various practices and inquiries. Each section addresses a few of these questions to introduce a range of sharply contrasting positions. Readings are typically drawn from the works of both traditional and contemporary thinkers with distinctive, carefully argued, and influential views regarding knowledge, morality, mind, and meaning. Close attention is paid to formulating questions precisely and to the technique of analyzing arguments, through careful consideration of texts.

Primary distribution course in the Humanities.
Each semester. Staff.

11. Moral Philosophy.

Though there will be some attention paid to contemporary thinkers, the focus of this course will be traditional views of substantive ethics. We will discuss and compare views of how one should live, contrasting different views on the relative importance and relationship of, for example, knowledge, freedom, and pleasure. Among other values which may be discussed are tranquility, human relationships, autonomy, and the search for objective good.

Spring semester. Schuldenfrei.

12. Logic.

An introduction to the principles of deductive logic with equal emphasis on the syntactic and semantic aspects of logical systems. The place of logic in philosophy will also be examined.

No prerequisite. Required of all philosophy majors.

Fall semester. Lacey.

13. Modern Philosophy.

17th- and 18th-century sources of Modernity in philosophical problems of knowledge, freedom, humanity, nature, God. Readings from Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant.

Spring semester. Raff.

16. Philosophy of Religion.

See Religion 15B.

17. Aesthetics.

On the nature of art and its roles in human life,

considering problems of interpretation and evaluation and some specific medium of art: Who should care about art? Why? How?

Not offered 1998-99.

19. Philosophy of Social Science: Methodologies of the Study of Poverty.

This course will study standard problems in the philosophy of the social sciences as they are exemplified in recent studies of urban poverty.

Not offered 1998-99.

20. Plato.

An introduction to the thought of Plato through close readings of some of the major dialogues. Topics will vary from year to year.

Spring semester. Ledbetter.

21. Social and Political Philosophy.

See Philosophy 121.

Not offered 1998-99.

23. Contemporary Philosophy.

Classical texts by 20th-century authors illustrate the Revolt Against Idealism (Frege, Moore, Russell), Logical Positivism (Carnap, Quine), Ordinary Language Philosophy (Austin, Ryle), later Wittgenstein, Rorty.

Not offered 1998-99.

24. Theory of Knowledge.

Perplexities about the nature, limits, and varieties of rationality, knowledge, meaning, and understanding. Readings from current and traditional sources.

Fall semester. Raff.

25. Philosophy of Mathematics

Topics will include: the nature of mathematical objects and mathematical knowledge, proof and truth, mathematics as discovery or creation, the character of applied mathematics, the geometry of physical space. A considerable range of 20th Century views on these topics will be investigated including: logicism (Frege and Russell), formalism (Hilbert), intuitionism (Brouwer, Dummett), platonism (Gödel), and empiricism (Kitcher). Important mathematical results pertaining to these topics, their proofs and their philosophical implications, will be studied in depth, e.g., the paradoxes of set theory, Gödel's incompleteness theorems, relative consistency proofs for non-Euclidean geometries.

Prerequisites: Logic, or acceptance as a major in mathematics, or approval of instructor.

Fall semester. Lacey.

26. Language and Meaning.

See Philosophy 116.

Not offered 1998-99.

39. Existentialism.

In this course we will examine existentialist thinkers such as Nietzsche, Kierkegaard, Heidegger, Sartre, Beauvoir, Genet, and Camus in order to explore themes of contemporary European philosophy including the self, responsibility and authenticity, and the relationships between body and mind, fantasy and reality, and literature and philosophy.

Spring semester. Lorraine.

40. Semantics.

See Linguistics 40.

45. Philosophical Approaches to the Question of Woman.

We will examine definitions of woman in Western philosophy and explore how women are currently defining themselves in various forms of feminist thought.

Not offered 1998-99.

55. Philosophy of Law.

An inquiry into major theories of law, with emphasis on implications for the relation between law and morality, principles of criminal and tort law, civil disobedience, punishment and excuses, and freedom of expression.

Fall semester. Oberdiek.

59. Colloquium: Tolerance, Rights, and Multiculturalism

Tolerance is an elusive virtue, especially in pluralistic societies: it simultaneously seems to demand too much because it demands that we put up with people, doctrines, and ways of life many detest and too little because it doesn't require us to accept cultural diversity wholeheartedly. Some argue that individual rights provide all the protection needed or desirable to protect less powerful groups in society; others contend that we must augment individual rights with certain group rights if we are to protect cultural minorities. We will explore these and related issues in the writings of such contemporary philosophers as: Charles Taylor,

Bernard Williams, Michael Walzer, Amy Gutmann, Will Kymlicka, Anthony Appiah, and Joseph Raz.

Fall semester. Oberdiek.

79. Poststructuralism

This course will examine "poststructuralist" thinkers such as Foucault, Derrida, Kristeva, and Deleuze in light of contemporary questions about identity, embodiment, the relationship between self and other, and ethics.

Not offered 1998-99.

86. Philosophy of Mind and Psychology.

This course explores the extent to which the categories of explanation of thought and action that come from practical life (reasons and goals) constrain or limit scientific explanations of the kinds put forward in cognitive psychology, behaviorism, and artificial intelligence theory.

Cross-listed as Psychology 86.

Spring semester. Barton.

91. Rethinking Representation: Idealist Philosophy and Early German Romanticism.

In the wake of Kant's writings, the period from 1790 to 1806 witnessed a proliferation of new forms of philosophical writing, cultural criticism, and literary expression. Prefiguring current cultural debates, the early Romantics provided new paradigms of understanding by redefining the conditions and limits of philosophy and literature. The course will explore this formative moment of modern culture by closely reading the contributions of Kant, Fichte, Schiller, Friedrich Schlegel, Novalis, and Hölderlin.

Cross-listed as German 91.

Not offered 1998-99.

93. Directed Reading.

Each semester. Staff.

96. Thesis.

Fall semester. Staff.

99. Senior Course Study.

Spring semester. Staff.

Philosophy

SEMINARS

101. Moral Philosophy.

An examination of the principal theories of value, virtue, and moral obligation, and of their justification. The focus will be primarily on contemporary treatments of moral philosophy. A central question of seminar will be the possibility and desirability of moral theory.

Spring semester. Oberdiek.

102. Ancient Philosophy.

A study of the origins of Western philosophical thought in Ancient Greece, from the Presocratics through the Hellenistic schools. We will examine the doctrines of the Milesians, Heraclitus, Parmenides, Plato, Aristotle, the Epicureans, the Stoics, and the Skeptics.

Fall semester. Ledbetter.

103. Selected Modern Philosophers.

Two or more philosophical systems of Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, or Kant and their relations.

Spring semester. Raff.

104. Contemporary Philosophy.

20th-century classics by Frege, Moore, Russell, Wittgenstein selected for intensive treatment and as ground for one or more current philosophical issues.

Not offered 1998-99.

106. Aesthetics and Theory of Criticism.

On the nature of art and its roles in human life, considering problems of interpretation and evaluation and some specific medium of art.

Not offered 1998-99.

109. Semantics.

See Linguistics 109.

111. Philosophy of Religion.

See Religion Department Preparation by course and attachment.

113. Theory of Knowledge.

Traditional and current theories of knowledge and their alternatives. Topics include self-deception, dreaming, perception, theo-

rizing, and the nature of knowledge.

Not offered 1998-99.

114. Nineteenth-Century Philosophy.

The historicist treatment of such topics as knowledge, morality, God's existence, and freedom in Kant, Fichte, Hegel, Feuerbach, Marx, and Nietzsche.

Not offered 1998-99.

116. Language and Meaning.

Behaviorist theories of meaning, cognitivist theories of meaning, and conceptions of language as a social practice will be surveyed and criticized.

Not offered 1998-99.

118. Philosophy of Psychology.

An honors exam in Philosophy of Psychology may be prepared for by taking Philosophy 86 and attachment.

Not offered 1998-99.

119. Philosophy of Science.

Selected issues, e.g., the nature of scientific explanation and evidence, the relationship between theory and observation, the rationality of science, the alleged value-freedom of science.

Spring semester. Lacey.

121. Social and Political Philosophy.

Sources for this seminar will range from Ancient to Contemporary. Among the theorists who may be considered are Plato, Hobbes, Locke, Rousseau, Rawls, MacIntyre, Taylor, Shklar, Rorty, and Habermas. In addition to classic issues, such as the nature and foundation of justice, considerable attention will be paid to the question of whether modern thought can or should provide a philosophical basis for political and social theorizing and, if not, what such theorizing might look like in the absence of a philosophical basis.

Fall semester. Schuldenfrei.

122. Philosophy of Law.

Not offered 1998-99.

137. German Romanticism and Idealism.

A critical survey of the interactions between philosophical thinking about human freedom and literary imaginations of human possibili-

ties in German writing between 1791 and 1806. Kant, Schiller, A.W. Schlegel, F. Schlegel, Schelling, Hölderlin, Hegel, and perhaps Fichte and Novalis will be considered.

Not offered 1998-99.

139. Phenomenology, Existentialism, and Post-Structuralism.

In this course we will examine the themes of reality, truth, alienation, authenticity, death, desire, and human subjectivity as they emerge in contemporary European philosophy. We will consider thinkers such as Nietzsche, Husserl, Heidegger, Derrida, and Irigaray in order to place contemporary themes of poststructuralist thought in the context of the phenomenological, existential, and structuralist thought out of which they emerge.

Spring semester. Lorraine.

145. Feminist Theory Seminar.

If the power of a social critique rests on its ability to make general claims, then how do we account for the particularity of women's various social situations without sacrificing the power of a unified theoretical perspective? In this course, we will explore possibilities opened by poststructuralist theory, post-colonial theory, French feminist theory, and other forms of feminist thought, in order to examine questions about desire, sexuality, and embodied identities, and various resolutions to this dilemma.

Fall semester. Lorraine.

180. Thesis.

A thesis may be submitted by majors in the department in place of one Honors paper, upon application by the student and at the discretion of the department.

199. Senior Honors Study.

Spring semester.

Physical Education and Athletics

SUSAN P. DAVIS, Professor
MICHAEL L. MULLAN, Professor
DOUGLAS M. WEISS, Professor
ROBERT E. WILLIAMS, Professor and Chair
KAREN BORBEE, Associate Professor
KARL MIRAN, Associate Professor
LEE WIMBERLY, Associate Professor
PETE ALVANOS, Assistant Professor
CHERI GOETCHEUS, Assistant Professor
PAT GRESS, Coach/Instructor
ADRIENNE SHIBLES, Assistant Professor
FRANK AGOVINO, Assistant
PETER DICCE, Assistant
MARK DUZENSKI, Assistant
SHAWN FERRIS, Assistant
JOHN KEADY, Assistant
LARRY PERRY, Assistant
DAN SEARS, Assistant
RONALD A. TIRPAK, Assistant
SHARON GREEN, Administrative Assistant

The aim of the Department is to contribute to the total education of all students through the medium of physical activity. We believe this contribution can best be achieved through encouraging participation in a broad program of individual and team sports, aquatics, and physical conditioning. The program provides an opportunity for instruction and experience in a variety of these activities on all levels. It is our hope that participation in this program will foster an understanding of movement and the pleasure of exercise, and will enhance, by practice, qualities of good sportsmanship, leadership, and cooperation in team play. Students are also encouraged to develop skill and interest in a variety of activities which can be enjoyed after graduation.

The intercollegiate athletic program is comprehensive, including varsity teams in 24 different sports, 12 for men and 12 for women.

Ample opportunities exist for large numbers of students to engage in intercollegiate competition, and those who qualify may be encouraged to participate in regional and national championship contests. Several club teams in various sports are also organized and a program of intramural activities is sponsored.

Students are encouraged to enjoy the instructional

and recreational opportunities offered by the Department throughout their college careers. In the freshman and sophomore years all students not excused for medical reasons are required to complete a four quarter (two semester) program in physical education. All students must pass a survival swimming test or take up to one quarter of swimming instruction; classes for this purpose are offered in the fall quarter.

Courses offered by the Department are listed below. Credit toward completion of the Physical Education requirement will also be given for participation in intercollegiate athletics, as well as the listed Dance courses, which are semester-long courses. To receive credit for any part of the program students must participate in their chosen activity a minimum of three hours a week. Students are encouraged to complete the requirement by the end of their sophomore year.

Fall Activities

- Aerobics
- Aikido
- Aquatics I, II, III
- **** Cross Country
- ‡ Field Hockey
- Fitness Training
- Folk Dance
- *** Football
- Nautilus I
- Advanced Nautilus
- Scuba
- Self-Defense
- **** Soccer
- Squash
- Swimming for Fitness
- Techniques in Tibetan Yoga
- * Tennis
- Touch Football
- ** Volleyball
- Weight Training

Winter Activities

- Aerobics
- Aquatics I, II, III
- ** Badminton
- * Basketball
- Fencing
- Fitness Training
- Folk & Square Dance
- **** Indoor Track
- Lifeguard Training
- Nautilus I
- Advanced Nautilus
- Scuba
- Self-Defense
- Squash
- **** Swimming
- Swimming for Fitness
- Tennis
- Volleyball

- Weight Training
- *** Wrestling

Spring Activities

- Aerobics
- *** Baseball
- Folk Dance continued
- **** Golf
- **** Lacrosse
- Nautilus I
- Advanced Nautilus
- Scuba
- ‡ Softball
- Swimming for Fitness
- * Tennis
- **** Track and Field
- Volleyball
- Advanced Weight Training

-
- ‡ Intercollegiate competition for women
 - * Intercollegiate competition and course instruction.
 - ** Intercollegiate competition for women, course instruction for men and women.
 - *** Intercollegiate competition for men.
 - **** Intercollegiate competition for men and women.

Physics and Astronomy

JOHN R. BOCCIO, Professor¹

PETER J. COLLINGS, Professor, Chair

JOHN E. GAUSTAD, Professor of Astronomy

FRANK A. MOSCATELLI, Professor

AMY L.R. BUG, Associate Professor

CARL H. GROSSMAN, Associate Professor

MICHAEL R. BROWN, Assistant Professor

ERIC L.N. JENSEN, Assistant Professor of Astronomy

ANDREA L. STOUT, Assistant Professor

MARY ANN HICKMAN, Lecturer

DEBORAH J. ECONOMIDIS, Administrative Assistant

¹ Absent on leave, fall semester 1998.

The program of the Physics and Astronomy Department stresses the concepts and methods that have led to an understanding of the fundamental laws explaining the physical universe.

Throughout the work of the Department, emphasis is placed on quantitative, analytical reasoning, as distinct from the mere acquisition of facts and skills. Particular importance is also attached to laboratory work, because physics and astronomy are primarily experimental and observational sciences.

With the awareness that involvement in research is a major component in the education of scientists, the department offers a number of opportunities for students to participate in original research projects, conducted by members of the faculty, on (or off) campus.

Several research laboratories are maintained by the Department to support faculty interests in the areas of laser physics, high-resolution atomic spectroscopy, plasma physics, computer simulation, computer graphics, liquid crystals, and infrared astronomy.

The Department maintains two major telescopes, a 61-cm reflector, equipped with a high-resolution spectrometer and CCD camera, and a 61-cm refractor, equipped for photographic and visual astrometry, plus a 15-cm refractor for instructional use. A monthly visitors' night at the Observatory is announced in the College calendar.

Two calculus-based introductory courses are

offered. Physics 3, 4 covers both classical and modern physics and is an appropriate introductory physics course for those students majoring in engineering, chemistry, and biology. Physics 7, 8, on the other hand, which is normally preceded by Physics 6, is at a higher level. It is aimed towards students planning to do further work in physics or astronomy and is also appropriate for engineering and chemistry majors. The four-course sequence 6, 7, 8, 14 is designed to provide a comprehensive introduction to all major areas of physics.

Additional information is available via the World Wide Web at <http://laser.swarthmore.edu/>.

REQUIREMENTS AND RECOMMENDATIONS

Degree Requirements: The minimum program in Physics is intended for students not planning to pursue graduate work. It includes Physics 6, 7, 8, 14, and 50 in the first two years followed by Physics 111, 112, 113, and 114 in the last two years. In addition, the advanced laboratory courses Engineering 72A and Physics 82 and Mathematics 5, 6A, 6B, 16, and 18 must be taken.

The standard programs listed below provide strong preparation for graduate study.

The standard program in Physics is Physics 6, 7, 8, 14, and 50 in the first two years followed by Physics 111, 112, 113, 114, 115, and 116 in the last two years. In addition, the advanced

laboratory courses Engineering 72A, Physics 82, and 83, and Mathematics 5, 6A, 6B, 16, and 18 must be taken. Chemistry 10 is strongly recommended.

The standard program in Astronomy is Physics 6, 7, 8, 14, and Astronomy 5, 6 in the first two years followed by Astronomy 59, 117, 118, and three other Astronomy courses in the last two years. In addition, Mathematics 5, 6A, 6B, 16, and 18 must be taken.

A special major in Astrophysics normally consists of Physics 6, 7, 8, 14, and Astronomy 5, 6 in the first two years followed by Physics 111, 112, 113, 114, and Astronomy 117, 118 in the last two years. In addition, Mathematics 5, 6A, 6B, 16, 18 must be taken. Engineering 72A, Chemistry 10 and Physics 50, 82, and 83 are strongly recommended.

Students wishing an even stronger background for graduate work may take an extended program by adding senior seminars (numbered greater than 130) or a research project to the standard program.

Seniors not taking the external examinations must take a comprehensive examination, which is not only intended to encourage review and synthesis, but also requires students to demonstrate mastery of fundamentals studied during all four years.

Criteria for Acceptance as a Major: A student applying to become a Physics major should have completed or be completing Physics 14, Physics 50, and Math 18. If applying for an Astrophysics or Astronomy major, they should also have completed Astronomy 5 and 6. The applicant must normally have an average grade in all Physics and/or Astronomy courses, as well as in Math 16, 18, of C or better.

Since almost all advanced work in Physics and Astronomy at Swarthmore is taught in seminars, where the pedagogical responsibility is shared by the student participants, an additional consideration in accepting (retaining) majors is the presumed (demonstrated) ability of the students not only to benefit from this mode of instruction but also to contribute positively to the seminars.

Advanced Laboratory Program: The principal Physics seminars (111, 112, 113, 114, 115, 116) are each accompanied by a full laboratory program, namely Engineering 72A (electronics lab) and Physics 82 (each one-half credit)

requiring approximately one afternoon a week. Students enrolled in these seminars must arrange their programs so that they can schedule an afternoon for lab each week free of conflicts with other classes, extracurricular activities, and sports.

Independent Work: Physics and Astronomy majors are encouraged to undertake independent research projects, especially in the senior year, either in conjunction with one of the senior seminars, or as a special project for separate credit (Physics/Astronomy 94). There are usually several opportunities for students to work with faculty members on research projects during the summer. In preparation for independent experimental work, prospective majors are strongly urged to take Physics 63, Procedures in Experimental Physics, during the fall semester of their sophomore year, which will qualify them to work in the departmental shops.

EXTERNAL EXAMINATION PROGRAM

To be accepted into the External Examination program in the Department, the applicant must normally have an average grade in all Physics and/or Astronomy courses of B or better.

External examinations are based on the topics covered in the following seminars: Physics (111, 112, 113, 114, 115), Astrophysics (111, 112, 113, 114, 117), Astronomy (56, 59, 64, 117). In addition, topics from the Senior Honors Study seminar are included in the external examinations. An oral defense of a research or library thesis is also a part of the external examination program.

Minors in physics, astrophysics, and astronomy take an external examination based on two seminars from the lists above. An oral defense of a research or library thesis is also a part of the external examination program for minors.

Physics and Astronomy

PHYSICS

3. General Physics I.

Topics include vectors, kinematics, Newton's laws and dynamics, conservation laws, work and energy, oscillatory motion, systems of particles, rigid body rotation, special relativity, and thermodynamics. Includes one laboratory weekly.

Prerequisite: Mathematics 5 (can be taken concurrently).

Fall semester. Moscatelli.

4. General Physics II.

Topics include wave phenomena, geometrical and physical optics, electricity and magnetism, direct and alternating-current circuits, and introductory quantum physics. Includes one laboratory weekly.

Prerequisite: Mathematics 6A (can be taken concurrently). Physics 3 or permission.

Spring semester. Stout.

6. The Character of Physical Law.

An introduction to the concepts of physics and the thought processes inherent to the discipline. The primary emphasis of the course will be on the accepted principles of physics and their application to specific areas. Attention will be given to philosophical aspects of physics, discussions of what kind of problems physicists address and how they go about addressing them. The course includes a substantial writing component. Three lecture/discussion sections per week and a laboratory.

Primary distribution course.

Fall semester. Bug, Collings.

7. Introductory Mechanics.

An introduction to classical mechanics and special relativity. Includes the study of the kinematics and dynamics of point particles; conservation principles involving energy, momentum, and angular momentum; rotational motion of rigid bodies; oscillatory motion; and relativistic kinematics and dynamics. Includes one laboratory weekly.

Prerequisite (can also be taken concurrently): Mathematics 6A. Physics 6 or permission.

Spring semester. Boccio.

8. Electricity, Magnetism, and Waves.

A sophisticated introductory treatment of

wave and electric and magnetic phenomena, such as oscillatory motion, forced vibrations, coupled oscillators, Fourier analysis of progressive waves, boundary effects and interference, the electrostatic field and potential, electrical work and energy, D.C. and A.C. circuits, the relativistic basis of magnetism, and Maxwell's equations. Includes one laboratory weekly.

Prerequisites: Physics 7. Mathematics 6A, 6C; 16 or 18 (can be taken concurrently).

Fall semester. Brown.

14. Thermodynamics and Modern Physics.

An introduction to thermodynamics and temperature, heat, work, entropy, modern physics, including relativistic dynamics, wave mechanics, Schrodinger equation applied to one-dimensional systems, and properties of atoms, molecules, solids, nuclei, and elementary particles. The quantum aspects of the interaction of photons with matter. Includes one laboratory weekly.

Prerequisites: Physics 3, 4 or Physics 7, 8.

Spring semester. Moscatelli.

20. Principles of the Earth Sciences.

An analysis of the forces shaping our physical environment, drawing on the fields of geology, geophysics, meteorology, and oceanography.

Primary distribution course.

Spring semester. Collings.

21. Light and Color.

The fundamentals of light from the classical and quantum physical point of view. Extensive use of examples from art, nature and technology will be made. These include natural phenomena involving light such as rainbows, halos, black holes, and light in the universe. The role that the physical nature of light plays in art such as color, pigmentation, dyes, images, as well as in vision will be investigated. Other topics include: color film, color television, holography, lasers, telescopes, and diffraction gratings. Two or three lectures per week plus a special project/lab.

Prerequisite: High School level algebra and trigonometry.

Not offered 1998-99.

23. Relativity.

A non-mathematical introduction to the spe-

cial and general theories of relativity as developed by Einstein and others during the 20th century.

Primary distribution course.

Not offered 1998-99.

25. In Search of Reality.

By investigating the assumptions, theories, and experiments associated with the study of reality in quantum physics, we will attempt to decide whether the question of the existence of an intelligible external reality has any meaning.

Not offered 1998-99.

29. Seminar on Gender and (Physical) Science.

This seminar will take a multifaceted approach to the question "What are the connections between a person's gender, race, or class and their practice of science?" We will look at history of science, education of women, and the interplay between technology and society. Our principal focus will be the physical sciences, and will strive to combine an understanding of the science itself with the humanistic aspects that surround it. A few laboratory exercises will accompany the seminar, and there will be an opportunity for extended independent work on a topic of your choice.

No prerequisites.

Not offered 1998-99.

50. Mathematical Methods of Physics.

A survey of analytical and numerical techniques useful in physics, including multivariable calculus, optimization, ordinary differential equations, partial differential equations and Sturm-Liouville systems, orthogonal functions, Fourier series, Fourier and Laplace transforms, and numerical methods.

Prerequisites: Mathematics 16 and either 6C or 18; a knowledge of some programming language.

Spring semester. Boccio.

63. Procedures in Experimental Physics.

Techniques, materials, and the design of experimental apparatus. Shop practice. Printed circuit design and construction. Half-credit course. Open only to majors in

Physics or Astronomy.

Fall semester. Technical staff.

93. Directed Reading.

This course provides an opportunity for an individual student to do special study, with either theoretical or experimental emphasis, in fields not covered by the regular courses and seminars. The student will present oral and written reports to the instructor.

One-half, one, or two credits.

Each semester. Staff.

94. Research Project.

Initiative for a research project may come from the student, or the work may involve collaboration with on-going faculty research. The student will present a written and an oral report to the Department.

One-half, one, or two credits.

Each semester. Staff.

SEMINARS

111. Analytical Dynamics.

Intermediate classical mechanics. Motion of a particle in one, two, and three dimensions. Kepler's laws and planetary motion. Phase space. Oscillatory motion. Lagrange equations and variational principles. Systems of particles; collisions and cross sections. Motion of a rigid body. Euler's equations. Rotating frames of reference. Small oscillations and normal modes. Wave phenomena.

Prerequisites: Physics 14, 50; Math 18.

One credit.

Fall semester. Moscatelli.

112. Electrodynamics.

Electricity and magnetism using vector calculus. Electric and magnetic fields. Dielectric and magnetic materials. Electromagnetic induction. Maxwell's field equations in differential form. Displacement current. Poynting theorem and electromagnetic waves. Boundary-value problems. Radiation. Four vector formulation of relativistic electrodynamics.

Prerequisite: Physics 14, 50; Math 18.

One credit.

Physics and Astronomy

Fall semester. Stout.

113. Quantum Theory.

Postulates of quantum mechanics. Operators, eigenfunctions, and eigenvalues. Function spaces and hermitian operators; bra-ket notation. Superposition and observables. Time development, conservation theorems, and parity. Angular momentum. Three-dimensional systems. Matrix mechanics and spin. Coupled angular momenta. Time-independent and time-dependent perturbation theory. Transition rates.

Prerequisites: Physics 111 and Mathematics 16.

One credit.

Spring semester. Brown.

114. Statistical Physics.

The statistical behavior of classical and quantum systems. Temperature and entropy, equations of state, engines and refrigerators, statistical basis of thermodynamics, micro-canonical, canonical and grand canonical distributions, phase transitions, statistics of bosons and fermions, black body radiation, electronic and thermal properties of quantum liquids and solids.

Prerequisites: Physics 111 and Mathematics 6C or 18.

One credit.

Spring semester. Grossman.

115. Quantum Applications.

Applications of theory developed in Physics 113 and 114. Topics selected from: Atomic physics. Solid-state physics. Nuclear physics. Particle physics. Molecular physics.

Prerequisites: Physics 111, 113.

One credit.

Fall semester. Grossman.

116. Modern Optics.

Wave equations, superposition, interference, Fraunhofer and Fresnel diffraction, polarization. Optical instruments: spectrometers, interferometers, etalons. Propagation in fibers, Fourier optics, spatial and temporal coherence, lasers, elements of nonlinear optics. Quantum theory of light: blackbody radiation, modes, quantization of the electromagnetic field, photons, intensity fluctuations.

Prerequisites: Physics 112, 113.

One credit.

Fall semester. Collings.

130. General Relativity.

Newton's gravitational theory. Special relativity. Linear field theory. Gravitational waves. Measurement of spacetime. Riemannian geometry. Geometrodynamics and Einstein's equations. The Schwarzschild solution. Black holes and gravitational collapse. Cosmology.

Prerequisites: Physics 111 and 112.

One credit.

Not offered 1998-99.

131. Particle Physics.

A study of the ultimate constituents of matter and the nature of the interactions between them. Topics include relativistic wave equations, symmetries and group theory, Feynman calculus, quantum electrodynamics, quarks, gluons, and quantum chromodynamics, weak interactions, gauge theories, the Higgs particle, and finally some of the ideas behind lattice gauge calculations.

Prerequisites: Physics 113 and 115.

One credit.

Not offered 1998-99.

132. Non-Linear Dynamics and Chaos.

Nonlinear mappings, stability, bifurcations, catastrophe. Conservative and dissipative systems. Fractals and self-similarity in chaos theory.

Prerequisites: Physics 111 and 112.

One credit.

Not offered 1998-99.

133. Atomic Physics and Spectroscopy.

Review of quantum theory. Hydrogen atom. Multi-electron atoms. Atoms in external fields. Optical transitions and selection rules. Hyperfine structure. Lasers. Atomic spectroscopic techniques: atomic beams methods, Doppler-free spectroscopy, time-resolved spectroscopy, level crossing spectroscopy.

Prerequisites: Physics 113, 115, and 116.

One credit.

Not offered 1998-99.

134. Advanced Quantum Mechanics.

Photon polarization. Quantum interference effects. Measurement theory. Potential scattering. Time-independent and time-dependent perturbation theory. Interaction of the quantized radiation field with matter. Addition of angular momenta. Rotations and tensor operators. Identical particles. Second quantization. Atoms and molecules. Relativistic spin zero particles. The Klein-Gordon equation. The Dirac equation.

Prerequisites: Physics 113 and 115.

One credit.

Not offered 1998-99.

135. Solid State Physics.

Crystal structure and diffraction. The reciprocal lattice and Brillouin zones. Lattice vibrations and normal modes. Phonon dispersion. Einstein and Debye models for specific heat. Free electrons and the Fermi surface. Electrons in periodic structures. The Bloch theorem. Band structure. Semiclassical electron dynamics. Semiconductors. Magnetic and optical properties of solids. Superconductivity.

Prerequisites: Physics 113, 114, and 115.

One credit.

Not offered 1998-99.

136. Quantum Optics and Lasers.

Atom-field interactions, stimulated emission, cavities, transverse and longitudinal mode structure, gain and gain saturation, non-linear effects, coherent transients and squeezed states. Pulsed lasers and superradiance.

Prerequisites: Physics 113 and 116.

One credit.

Not offered 1998-99.

137. Computational Physics.

Computer simulations are a powerful way of solving problems in various fields of physics. Students will learn concepts of robust scientific computing and explore techniques like Monte Carlo, finite-element, FFT and molecular dynamics. Other topics may include high performance computing, and making the Web a part of one's problem-solving and information-dissemination strategies. As a culmination to the seminar, students will do an extended independent project of their choice.

Prerequisite: Physics 50, 111, and taken previ-

ously or concurrently, 113, 114.

Spring semester. Bug.

138. Plasma Physics.

An introduction to the principles of plasma physics. Treatment will include the kinetic approach (orbits of charged particles in electric and magnetic fields, statistical mechanics of charged particles) and the fluid approach (single fluid magnetohydrodynamics, two fluid theory). Topics may include transport processes in plasmas (conductivity and diffusion), waves and oscillations, controlled nuclear fusion, and plasma astrophysics.

Prerequisite: Physics 112.

One credit.

Not offered 1998-99.

180. Honors Thesis.

Theoretical or experiment work culminating in a written Honors Thesis. Also includes an oral presentation to the department.

One-half, one, or two credits.

Each semester. Staff.

199. Senior Honors Study.

A seminar directed at an advanced topic in physics to serve as a review of the subject matter covered in Physics 111, 112, 113, 114, and 115. Possible advanced topics include solid state physics, plasma physics, partial physics, nonlinear dynamics, and atomic physics. Open only to students in the External Examination Program.

Prerequisites: Physics 111, 112, 113, 114, and 115.

One credit.

Spring semester. Bug.

UPPERCLASS LABORATORY PROGRAM**72a. Electronic Circuit Applications.**

(See Engineering for description.)

82. Advanced Laboratory.

Experiments in mechanics, electricity and magnetism, waves, thermal and statistical physics, atomic and nuclear physics.

One-half credit.

Spring semester. Collings.

Physics and Astronomy

ASTRONOMY

1. Introductory Astronomy.

The scientific investigation of the universe by observation and theory, including the basic notions of physics as needed in astronomical applications. Topics include astronomical instruments and radiation; the sun and planets; properties, structure, and evolution of stars; the Galaxy and extragalactic systems; the origin and evolution of the universe. Includes some evening labs.

Primary distribution course.

Each semester. Jensen.

5. General Astronomy I.

Celestial coordinates. Astronomical instruments. Laws of physics relevant to astronomy. Observed properties of the sun and stars. Stellar structure and evolution. Star clusters. Celestial mechanics. Binary stars.

Prerequisite: Mathematics 5.

Fall semester. Gaustad.

6. General Astronomy II.

Interstellar matter and star formation. The Milky Way and other galaxies. Cosmological insights. Exploration of the Solar System.

Prerequisite: Astronomy 5.

Spring semester. Gaustad.

9. Meteorology.

The elements of weather, its recording and prediction. Structure and dynamics of the atmosphere. Includes regular weather observations and comparison with maps.

Prerequisites: Mathematics 5, 6A.

Not offered 1998-99.

56. Cosmology.

Studies of galaxies; the cosmic distance and age scales. General Relativity; theoretical and observational frames of model Universes. Background radiation and theories of the early Universe.

Prerequisites: Astronomy 6, Mathematics 6 or equivalent.

Not offered 1998-99.

59. Stellar Systems and Motions.

Astronomical coordinates. Positions, motions, and parallaxes of stars. Analysis of binary stars.

Kinematics and contents of the Milky-Way Galaxy.

Prerequisite: Astronomy 1 or Astronomy 5.

Not offered 1998-99.

61. Current Problems in Astronomy and Astrophysics.

Reading and discussion of selected research papers from the astronomical literature. Techniques of journal reading, use of abstract services and other aids for the efficient maintenance of awareness in a technical field. May be repeated for credit. Credit/no credit only.

One-half credit.

Each semester. Gaustad, Jensen.

64. Galactic Structure.

Observational and theoretical results on the Milky Way Galaxy, including stellar populations, H-R diagram, luminosity function, stellar dynamics, spiral structure, and mass distribution.

Prerequisites: Astronomy 6, Mathematics 6A.

Not offered 1998-99.

93. Directed Reading.

94. Research Project.

117, 118. Theoretical Astrophysics.

The physical interpretation of astronomical phenomena. Topics include electromagnetic processes in space, fluid dynamics and shock waves, the interstellar medium, radiative transfer, stellar atmospheres, interpretation of stellar spectra, stellar structure and evolution, and star formation.

Prerequisites: Astronomy 5, 6; Physics 14.

Each semester. Gaustad.

Political Science

RAYMOND F. HOPKINS, Professor³
JAMES R. KURTH, Professor
PEYTON McCRARY, Lang Professor of Social Change, 1998-99
RICHARD L. RUBIN, Professor (part-time)
KENNETH E. SHARPE, Professor
DAVID G. SMITH, Professor Emeritus
CAROL HACKENOFF, Associate Professor and Chair
KEITH REEVES, Associate Professor³
RICHARD VALELLY, Associate Professor
TYRENE WHITE, Associate Professor
CYNTHIA PERWIN HALPERN, Assistant Professor
META MENDEL-REYES, Assistant Professor
BRUCE MORRISON, Assistant Professor
DEEPA M. OLLAPALLY, Assistant Professor¹
GEOFFREY HERRERA, Visiting Assistant Professor⁵
KATHLEEN KERNS, Administrative Assistant
DEBORAH SLOMAN, Administrative Assistant

1 Absent on leave, fall semester, 1998.

5 Spring semester, 1999.

3 Absent on leave 1998-99.

COURSE OFFERINGS AND PREREQUISITES

Courses and seminars offered by the Political Science Department deal with the place of politics in society and contribute to an understanding of the purposes, organization, and operation of political institutions, domestic and international. The Department offers courses in all four of the major subfields of the discipline—American politics, comparative politics, international politics, and political theory. Questions about the causes and consequences of political action and normative concerns regarding freedom and authority, power and justice, and human dignity and social responsibility are addressed throughout the curriculum.

Prerequisites: Students planning to study political science are advised to start with two of the following introductory courses: Political Theory, American Politics, Comparative Politics, and International Politics (Political Science 1, 2, 3, and 4). Normally any two of these courses constitute the prerequisite for further work in the Department.

REQUIREMENTS FOR THE MAJOR

Prerequisites and general recommendations: Students who intend to major in Political Science should begin their work in their first year at college if possible. Completion of at least two courses at the introductory level (Political Science 1, 2, 3, 4 is required for admission to the major). Supporting courses strongly recommended for all majors are Statistical Thinking or Statistical Methods (Mathematics 1 or 2) and Introduction to Economics (Economics 1).

Course requirements for majors: To graduate with a major in Political Science, a student must complete the equivalent of at least eight courses in the Department. The Department expects that at least five of these eight courses be taken at Swarthmore.

Distribution Requirements: All Political Science majors are required to take one course or seminar in each of the following three fields: 1) American politics; 2) comparative or international politics; and 3) political theory. Completion of any of the following will satisfy the political theory requirement: Political

Political Science

Science 11, 12, 100, or 101.

The Department recommends that majors plan course and seminar programs that afford some exposure above the introductory level to at least three of the four major subfields of political science (listed in the introductory paragraph above).

The comprehensive requirement: Majors in the Course program can fulfill the College comprehensive requirement in one of two ways. The preferred option is the Oral Thesis. Students are examined orally on a body of literature that best captures their interests and range of preparation within the discipline. Under the second option, the Written Thesis, students are required to complete a written thesis based on in-depth research into a topic of their choice. To be eligible for this option students must normally have at least an A- average in their political science courses, demonstrate the merit and rigor of their proposal, and secure the approval of a faculty advisor. Detailed information about all of these options is made available at the beginning of the junior year.

HONORS MAJORS

(Available to classes of 1997 onward)

To be accepted into the Honors Program students should normally have at least an average of B+ inside the department (the grade equivalent of an "Honors") and B outside the department and should give evidence of their ability to work independently and constructively in a seminar setting. Seminars will normally be limited to eight students and first choice will go to honors majors. Political Science Honors majors must meet all current distributional requirements for majors, including the political theory requirement. They must have a minimum ten credits inside the Political Science Department. Normally, six of these credits will be met with three two-unit preparations which will help prepare honors majors for outside examinations, both written and oral. These two-unit preparations will normally be either a two-credit honors seminar or a "course-plus" option. Of these three (3) two-unit preparations, no more than two may be in a single field in the Department. The "course-plus" option will normally consist of two one-unit courses or seminars that have been designated to count as

an honors preparation. Examples include Pols 38 (Public Service, Community Organizing, and Social Change) plus either Pols 19 (Democratic Theory and Practice) or Pols 36 (Multicultural Politics in the U.S.); Pols 13 (Feminist Political Theory) plus either Pols 31 (Difference and Dominance) or Pols 32 (Gender, Politics and Policy in America); or Pols 24 (Constitutional Law) plus Pols 72 (Special Topics/Thesis). The Department does not normally advise theses, course attachments, or directed readings as a substitute for the honors seminars and "course plus" options but on occasion some faculty members may have the time to direct such individual work.

All prospective honors majors must have completed one of their four honors preparations before their senior year in order to have room in their schedule for the Senior Honors Colloquium.

All senior honors majors must take the *Senior Honors Colloquium*, a 1.5 credit colloquium normally offered in the fall term of their senior year. The work done in this colloquium will satisfy the College's senior honors study requirement and will be submitted to the external examiners. Students will earn an additional SHS credit (.5) for this work upon successful completion of their honors exams.

HONORS MINORS

Honors minors in political science will be required to have at least five credits in political science. Among these five credits, minors must normally meet the three-field distribution requirement—in American politics, in political theory, and in comparative politics/international relations. Minors will be required to take one of the two-unit Honors preparations offered by the Department. Honors minors will normally meet their senior honors study requirement by doing a set of readings suggested by the teacher of their political science seminar. This list will then be passed on to their outside examiner along with the seminar syllabus.

HONORS EXAMS

The honors exams will normally consist of a three hour written exam in each of the student's seminars, and an oral exam of a half an hour.

CONCENTRATION IN PUBLIC POLICY

Students have the option of pursuing interdisciplinary work as an adjunct to a major in Political Science in the concentration of Public Policy. Comprehensive requirements (for Course majors) or the external examination requirements (for candidates for Honors) will be adjusted to allow students to demonstrate their accomplishments in the concentration. For further information, consult the separate Catalog listing for Public Policy (page 285). Currently, Professor Ellen Magenheim is the coordinator of the concentration in Public Policy.

THE DEMOCRACY PROJECT

The purpose of this project is to deepen students' understanding of and commitment to democratic citizenship in a multicultural society, through participation in community politics. A central feature of the Democracy Project is community-based learning, through public service and community organizing internships as part of the course work. By integrating reflection and experience, the project will enable students to study the ways in which diverse communities define and seek to empower themselves in the United States, and the relationship between individual activism, social responsibility, and political change at the grassroots level. Students interested in the project are encouraged to take the three core courses: Democratic Theory and Practice (Pols 19), Multicultural Politics in the U.S. (Pols 36), and Public Service, Community Organizing, and Social Change.

ADVANCED PLACEMENT

The Department grants one unit of college

credit to students who have achieved a score of 5 on the College Board Advanced Placement examination in Government and Politics (either United States or Comparative, but not both). This credit may be counted toward the major and toward satisfaction of the College distribution requirement in the Social Sciences. Normally, students awarded A.P. credit will still be expected to complete at least two introductory courses at Swarthmore as a prerequisite for more advanced work in the Department.

TEACHER CERTIFICATION

Occasionally, majors in Political Science wish to pursue certification for secondary school teaching. For such students, there are two normal routes to Social Studies Certification. One of these is through a major in the social sciences, plus four to six semesters of courses in other social sciences. Students majoring in History, Political Science, and Sociology-Anthropology are required to take at least four courses outside their major; students majoring in Economics or Psychology are required to take six. The other route to certification is by taking at least twelve semester courses in social sciences, of which six must normally be in one discipline, and at least two more must be in a single other discipline. All students seeking social studies certification are required to take two courses in history. At least one course in American history and one social science course focusing on Third World or non-Anglo subject matter are required. For further information, see the listing for the Program in Education.

1. Political Theory.

This course is an introduction to political theory by way of an introduction to some of its most important themes, problems, and texts. It seeks to elicit understanding of theory as a way of thinking about the world, as related to political practices and institutions, and as a form of politics. Different instructors and sections will emphasize different central issues of politics, such as (1) justice, (2) freedom, (3) power and knowledge, and (4) religion and politics.

Primary distribution course.

Fall semester. Halpern, Mendel-Reyes, Sharpe.

2. American Politics.

How do American institutions and political processes work? To what extent do they produce democratic, egalitarian, or rational outcomes? The course examines the exercise and distribution of political power. Topics can include presidential leadership; legislative politics; role of the Supreme Court; federalism; parties, groups and movements; public policy; the politics of class, race, and gender; voting; mass media; and public discontent with government.

Primary distribution course.

Fall semester. Nackenoff and Valelly.

3. Comparative Politics.

An introduction to the history and character of contemporary politics in Eastern and Western Europe. Topics will include the formation of states, the growth of nationalism and ethnic conflict, patterns of socioeconomic development, the role of civil society, and the prospects of supranational integration.

Primary distribution course.

Fall semester. Morrison.

4. International Politics.

An introduction to the analysis of the contemporary international system and its evolution in the twentieth century. The course will examine various approaches to explaining major international wars, ethnic conflicts, and economic problems.

Primary distribution course.

Spring semester. Kurth and Ollapally.

7. Introduction To African Studies.

(Cross-listed as History 65)

An historically oriented introduction to African societies, cultures, and political economies offers perspectives on different reconstructions of Africa's pre-colonial/colonial past. We also discuss the post-colonial present, exploring socioeconomic transformations, continuities, as well as struggles over authority, gender and access to resources. Focusing mainly on two contrastive geographic regions in West and Southern Africa, the course introduces students to a variety of oral and written texts, scholarly analysis, first-person narratives and fiction, as well as visual representations of Africa's past

and present in film and sculpture. Meets at Haverford; occasionally elsewhere with notice. Transportation will be provided. Highly recommended for students planning to study abroad in Africa.

Fall semester. Professor Glickman.

11. Ancient Political Theory:Greek and Biblical Origins and Traditions.

Two traditions constitute the origins of western politics. We begin with Greek tragedy and Athenian democracy against which Greek political theory arose (Sophocles, Plato and Aristotle). We contrast this tradition with that of the Hebrew Bible (the prophets Jeremiah, Ezekiel and Deuterostsaiah) as a different way of understanding justice, order, suffering, community and politics. These two traditions converge in the New Testament era (selections gospels, from Paul, and from gnostic gospels). We conclude with Augustine, a point of convergence for both of these traditions.

Fall semester. Halpern.

12. Modern Political Theory.

This course will be concerned with the nature of modernity, theory and politics. We will study the roots of modernity in the Reformation and the Renaissance (Luther, Calvin and Machiavelli); the foundations of modernity in the construction of liberty, property and equality (Hobbes, Locke, and Rousseau); the culmination of modernity in the Enlightenment projects of Kant, Mill, and Marx; and the breakdown of the Enlightenment (Freud, Nietzsche, and Foucault). We analyze both historical kmcontext and theory, authority and revolution, which contributed to the great democratizing impulse in the west.

Spring semester. Halpern

13. Feminist Political Theory.

Exploration of key contributions and debates in feminist political and legal theory, including the body; personhood and citizenship; theorizing otherness; discourses privileged and silenced; feminism and global women of color.

Not offered 1998-99. Nackenoff.

14. Political Theater and Film.

Explores political theater and film as vehicles

for understanding, preserving, and changing relations of power. Topics include: theater as public space in political theory and history; representation of racial, gender, and other differences; drama as a tool of resistance, including guerilla and agit-prop theater; production, distribution, reception; art and popular culture; utopias and other expressions of political imagination. Playwrights and filmmakers include: Brecht, Costa-Gavras, Eisenstein, Griffith, Lee, Machiavelli, Ophuls, Pontecorvo, Riefenstahl, Shakespeare, Sophocles.

Mendel-Reyes.

15. Ethics and Public Policy.

This course will examine the nature and validity of ethical arguments about moral and political issues in public policy. Specific topics and cases will include: ethics and politics, violence and war, public deception, privacy, discrimination and affirmative action, environmental risk, health care, education, abortion, surrogate motherhood, world hunger, and the responsibilities of public officials. This course may be counted toward a concentration in Public Policy.

Spring semester. Halpern.

16. Liberal Individualism.

This course will explore the conceptions of human nature that underlie liberalism in modern society, with attention to what current research and theory in psychology have to say about these assumptions.

Not offered 1998-99. Sharpe, Schwartz.

17. American Political Thought.

An exploration of American political thought and political culture. Topics include national identity; struggles of inclusion/exclusion; individualism and community; moral crusades; democratic visions; race, class, ethnicity and gender; and the role of the state.

Not offered 1998-99. Nackenoff.

19. Democratic Theory and Practice.

Explores the relationship between theories and practices of democracy, focussing on the gap between the nearly universal commitment to "the rule of the people" and the fact that very few people exercise such power today.

Not offered 1998-99. Mendel-Reyes.

22. American Elections: Ritual, Myth and Substance.

An examination of the role of policy issues, candidate images, media, marketing, and political parties in the American electoral process.

Not offered 1998-99. Nackenoff.

23. Presidency, Congress, and the Court.

Considers how making national policy is tied to strategies and behaviors induced by divided government, separation of powers, bicameralism, internal legislative structure, judicial review, expectations of presidential leadership, the economics of information, and different types of electoral accountability and representation. Attention to why, when, and how much of such phenomena as collective responsibility, judicial autonomy and prudence, and legislative productivity, and of a variety of tactics for simply winning in the political game.

Spring, 1998. Prerequisite: Pols 2. Vallery

24. American Constitutional Law.

The Supreme Court in American politics with emphasis on civil rights/civil liberties and constitutional development.

Not offered 1998-99. Nackenoff.

26. American Political Development.

For students with strong interest in asking political science questions of American political history. How have American political institutions evolved since the Founding? With what consequences for the polity's workability, the realization of public goods, the processing of conflict, and the satisfaction of democratic ideals? Major emphasis is on the party system and group system's development, though other topics may include (for instance) economic regulatory institutions and the persistence of the Constitution.

Fall, 1998. Prerequisite: Pols 2. Vallery

27. Law and the Political Process.

This course focuses on the extraordinary changes in the American political process wrought over the past half century by federal court decisions and changes in federal law. The central theme of the course is the strug-

gle for racial and political equality. Among the principal topics are minority voting rights cases, the one-person, one-vote reapportionment decisions, and partisan gerrymandering litigation. The course also deals with the adoption, revision, and implementation of the Voting Rights Act of 1965, and of the nation's campaign finance laws. Legal and constitutional issues are examined in the context of social and political factors underlying the cases, as well as the political and social impact of these changes in federal law.

Fall semester. McCrary.

28. Civil Rights Policy Regarding Race.

The course focuses on civil rights policies affecting racial minority groups in the United States over the last half century. It examines decision-making regarding civil rights policy by the legislative, judicial, and executive branches, but emphasizes the implementation of these policies and the social impact of policy implementation. The course concentrates on efforts to end racial discrimination in education, housing, and employment, as well as the evolution of policies in each of these areas toward eliminating the effects of past discrimination.

Spring semester. McCrary.

31. Difference, Dominance and the Struggle for Equality.

How unequal power relations are maintained and legitimated, with strategies and routes for achieving equality. Struggles examined involve gender, race, ethnicity, class, colonial and post-colonial relationships.

Not offered 1998-99. Nackenoff.

32. Gender, Politics and Policy in America.

This course examines gender issues in contemporary American politics, with primary emphasis upon women and politics. Topics of investigation include (1) gender and political participation; (2) movement politics, groups politics and empowerment; and (3) gender, policy and law. Policy issues include: feminization of poverty; employment discrimination; affirmative action; divorce, custody, child care; surrogate parentage; privacy rights and sexual practices; abortion; violence against women; sexual harassment; pornography; workplace hazards and fetal protection.

Spring semester. Nackenoff.

33. Race, Ethnicity and Public Policy: African Americans.

This course investigates the relationship of race, American political institutions, and the making of public policy. Race, class, and ethnic analyses are made with particular focus on how racial policy was made through the electoral system, the courts, the congress, and the presidency. The cleavage between Black and White is analyzed over time and in contemporary politics and also in comparative perspective with other groups. This course may be counted toward a concentration in Public Policy.

Fall semester. Rubin.

34. Race, Representation, and Redistricting in America.

This course will explore the controversial political and public policy questions surrounding the reshaping and redrawing of congressional districts to increase black political representation in the United States. Why was stringent and comprehensive voting rights legislation needed in 1965? What has been the impact of the Voting Rights Act on the problem of black voters' disenfranchisement? How have black voters and black candidates subsequently fared in the American electoral process? Has the Voting Rights Act evolved into an "affirmative action tool in the electoral realm?" And, how will the U.S. Supreme Court's developing jurisprudence of racial redistricting alter the political and racial landscape of this country. We will also focus on the utilization of the American process to most often preclude the vast majority of African-Americans from obtaining significant political power. And, from the perspective of electoral politics, we will explore the role of minority voting rights and the racial gerrymandering of legislative districts.

Not offered 1998-99. Reeves.

35. Political Economy of Education: U.S. Education in the 20th Century.

(Cross-listed as Education 67. See description under Education courses.)

Not offered 1998-99. Shumar.

36. Multicultural Politics in the U.S.

Is the U.S. A melting pot, a mosaic, or a battlefield of racial, ethnic, and cultural differ-

ences? To many people, nostalgia for a "united" America contrasts with widespread anxiety about a nation increasingly divided between whites and people of color, citizens and immigrants, rich and poor, "straights" and homosexuals, powerful and powerless. This course explores past and present multicultural politics, including the efforts of subordinated groups to empower themselves, and such issues as immigration, poverty, affirmative action, environmental racism.

This course may be counted toward a concentration in Public Policy

Fall semester. Mendel-Reyes.

38. Public Service, Community Organizing and Social Change.

Through community-based learning, this seminar explores democratic citizenship in a multicultural society. Semester-long public service and community organizing internships, dialogue with local activists, and popular education pedagogy allow students to integrate reflection and experience. Topics include: democratic theory and practice; multicultural politics; community politics in Chester and Philadelphia; community organizing and public service; social justice and social responsibility; and the relationship between individual activism and political change at the grassroots.

Prerequisite: Permission of instructor and internship arranged prior to the end of the Fall semester, 1998. This course may be counted toward a concentration in Public Policy.

Spring semester. Mendel-Reyes.

41. Political Economy and Social Policy: The U.S. in the 1990s.

Considers how government buffers the risks for individuals of a market system and what that means for citizenship and for who gets what from government.

Prerequisite: Pols 2.

Next offered 1999-2000. Valelly.

43. Environmental Policy.

(Cross-listed as Engineering 68. See description under Engineering courses.)

May be offered Spring 1999.

45. Defense Policy.

Analysis of American defense policy since World War II, with particular emphasis on for-

eign interventions, military strategies, weapons systems and race and gender issues. This course may be counted toward a concentration in Public Policy.

Prerequisite: Pols 4.

Fall semester. Kurth.

47. Politics of Famine and Food Policy.

The causes and possible solutions to major food problems: hunger, rural poverty, and food insecurity. The proper role of government policy in production, distribution, and consumption of food is considered. Cases include the American agricultural experience; problems facing less developed countries, and international trade and aid issues. An early final exam and a substantial paper are features of the course. Students with little work in political science may be admitted with the consent of the instructor. This course may be counted toward a concentration in Public Policy.

Not offered 1998-99. Hopkins.

52. The European Welfare State.

Is welfarism in Europe on the way out, or are the reports of its death greatly exaggerated? Are the current pressures for retrenchment directed at the whole of the welfare state, or just at certain of its component parts? These and other questions will be addressed within the context of a study of the historical origins of the European welfare state, its national peculiarities, and its relationship to broader approaches to economic development. Comparisons with North American cases will be made. This course may be counted toward a concentration in Public Policy.

Not offered 1998-99.

53. The Politics of Eastern Europe.

A comparative examination of Eastern Europe over the course of the twentieth century. The focus will be upon political regime changes, both in an authoritarian and democratic direction, as well as upon the pattern of state-society relations established within these regimes. Primary emphasis will be upon Poland, Hungary, and the Czech and Slovak Republics, although the other countries in the region will be treated as well.

Spring semester. Morrison.

54. The Past and Present of European Democracy.

A survey of the European experience of democracy from its origins in the early modern period to the present. The dual aim of the course will be to place the recent Southern and Eastern European transitions to democracy in historical context while also examining these events in their own right. Among the problems to be addressed: defining democracy and characterizing democratic regimes; assessing the relative influence of social, institutional and other causes of democratic changes; and identifying the factors which support the consolidation of democracy or contribute to its collapse.

Spring semester. Morrison.

55. China and the World.

Explores the rise of China in the late twentieth century and its implications for domestic, regional and international politics. Topics include China's reform and development strategy under the Deng regime, the social and political consequences of reform, the prospects for regime liberalization and democratization, and the China-Hong Kong-Taiwan nexus. Also examines China's changing role in East Asia and issues in Sino-American relations.

This course may be counted toward a program in Asian Studies.

Fall semester. White.

56. Politics of South and Southeast Asia.

This course will examine the two "faces" of Asia—a struggling South Asia and a prosperous Southeast Asia—in the contemporary international political and economic context. Topics will include the politics of authoritarianism and democracy; economic development; issues of women's labor; and the evolution of American and Japanese dominance in the region. A special topic will be the Asian "diaspora" in the United States and emerging trends in Asian American politics.

Spring semester. Ollapally.

57. Latin American Politics.

A comparative study of the political economy of the region focusing on Mexico, Chile, Guatemala, Nicaragua, and El Salvador. Topics include: the tensions between representative democracy, popular democracy, and market

economies; the conditions for democracy and authoritarianism; the sources and impact of revolution; the political impact of neo-liberal economic policies, and the economic impact of state intervention; and the role of the U.S. In the region.

Spring semester. Sharpe.

58. African Politics.

A comparative study of the politics of sub-Saharan African societies undergoing change and pursuing economic development. Policies that shape statehood, "nation-building" and economic development will be considered. This course may be counted toward a concentration in Public Policy.

Not offered 1998-99. Hopkins.

61. American Foreign Policy.

An examination of the making of American foreign policy and of the major problems faced by the United States in the modern world. The course will focus on the influence of political, bureaucratic, and economic forces and on the problems of war, intervention, and economic conflict.

Prerequisite: Pols 4 or equivalent.

Spring semester. Ollapally.

62. Development and Discontent: The Crisis of Political Economy in the Third World.

Constraints and choices facing developing countries in their drive to "catch up" with the West. Competing paradigms of development and the different strategies, politics and values they embody.

This course may be counted toward a concentration in Public Policy.

Not offered 1998-99. Ollapally.

63. La Frontera: The U.S. and Mexico in Politics and Literature.

An interdisciplinary exploration of the relationship between the United States and Mexico as experienced by communities on both sides of the U.S.-Mexico border.

Not offered 1998-99. Mendel-Reyes and Camacho de Schmidt.

64. American-East Asian Relations.

Examines international relations across the Pacific, with primary focus on U.S.-Japan and U.S.-China relations. Topics include the

debate over post-Cold War American security strategy in East Asia.

Not offered 1998-99. White.

65. The Politics of Population.

Examines global, regional, and national population issues in historical perspective. Topics include: the relationship between population growth, economic development, and political stability; the causes of fertility decline in different regional and cultural settings; the political implications of shifting demographic structures and aging populations; and the relationship between the current population debate and issues such as abortion, euthanasia, international migration, and the AIDS epidemic. This course may be counted toward a concentration in Public Policy.

Spring semester. White.

66. Technology and International Relations.

This course examines the relationship between technology and international relations. Looking at the conduct of war; the creation, consolidation and expansion of the nation-state system, and the material bases of the international political economy, the course will provide an introduction to issues of technological change and international politics. The course will discuss the period from 1500 to the present, including the Industrial Revolution, the World Wars, the Cold War, and the current globalization of the international political economy and the dawn of "info-war."

Spring Semester. Herrera.

68. International Political Economy.

(Cross-listed as Economics 53.)

This course uses political and economic perspectives to analyze the international economy. Topics include: the rise and decline of hegemonic powers, the controversy over "free" versus "fair" trade under the GATT/WTO, foreign debt and default, the role of the state in economic development, international financial markets, the history of the international monetary system. This course may be counted toward a concentration in Public Policy.

Prerequisite: Pols 4 and Econ 1.

Not offered 1998-99. Professors Hopkins and Golub.

72. Constitutional Law: Special Topics.

An in-depth exploration of several recent issues and controversies, most likely drawn from 1st, 4th, 5th, 6th and/or 14th Amendment jurisprudence. Some attention will also be given to theories of interpretation. This is designed for students who want to deepen their work in constitutional law.

Pols 24 is a prerequisite.

Spring semester. Nackenoff.

73. Comparative Politics: Special Topics.

Not offered 1998-99.

74. International Politics: Special Topics.

Each year this course will study a major topic in international politics, with different topics being studied in different years. The course will examine development of the topic from historical origins to contemporary issues. In 1999 the topic will be multicultural conflict, i.e., international politics within the United States itself.

Prerequisite: Pols 4.

Spring semester. Kurth.

80. Senior Colloquium.

This colloquium engages problems in contemporary politics and seeks to teach students how to think theoretically and synthetically, and to integrate approaches from the major fields in the discipline. Available to course students with permission of the instructor.

Fall semester. Kurth and Sharpe.

90. Directed Readings in Political Science.

Available on an individual or group basis, subject to the approval of the chairman and the instructor.

95. Thesis.

A one-credit thesis, normally written in the fall of the senior year. Students need the permission of the Department Chair and a supervising instructor.

SEMINARS

The following seminars prepare for examination for a degree with Honors:

100. Political Theory: Plato to Hobbes.

The development of political thought in the ancient and medieval periods, and the emergence of a distinctively modern political outlook. Special attention to the differences between the way the Ancients and the Moderns thought about ethics, politics, democracy, law, knowledge, power, justice, the individual, and the community. Key philosophers include Plato, Aristotle, Augustine, and Hobbes.

Fall semester. Sharpe.

101. Political Theory: Modern.

This seminar will be concerned with the nature of modernity, theory, and politics. We study the roots of modernity in the Reformation and the Renaissance (Luther, Calvin and Machiavelli); the foundations of modernity in the construction of liberty, property and quality (Hobbes, Locke and Rousseau); the culmination of modernity in the Enlightenment projects of Mill, Hegel, and Marx; and the breakdown of the Enlightenment (Freud/Jung, Nietzsche and Foucault). We analyze both historical context and theory, authority and revolution, which contributed to the great democratizing impulse in the west.

Spring semester. Halpern.

102. Senior Colloquium.

This colloquium engages problems in contemporary politics and seeks to teach students how to think theoretically and synthetically, and to integrate approaches from the major fields in the discipline. Required of all senior honors majors.

Fall semester. Kurth and Sharpe.

103. American Politics.

The relationship between American political thought and political practice. Exploration of classic authors and texts accompanied by investigation of political narratives and the impact of popular culture on forms of public discourse, as well as by interpretations of the character of American politics.

Not offered 1998-99. Nackenoff.

104. American Political System.

Compares, contrasts, and mixes different approaches to understanding the American political system's performance. First the view from public office is considered, then the view

from the citizen's vantage point. Particular attention to rules and to institutions and how politicians shape and re-shape them over time.
Spring semester. Valeyly.

105. Constitutional Law in the American Polity.

The Supreme Court in American political life, with emphasis on civil rights and civil liberties and on constitutional development. The course examines the Court's role in political agenda setting in arenas including economic policy; property rights; separation of powers; federalism; presidential powers and war powers; interpreting the equal protection and due process clauses as they bear on race and gender equality. Exploration of judicial review, judicial activism and restraint, and theories of constitutional interpretation.

Spring semester. Nackenoff.

107. Comparative Politics: Greater Europe.

A survey of the European experience of democracy from its origins to the present. Particular emphasis will be placed upon the claim that democracy's prospects are most heavily influenced by the manner in which the state fights, finances itself, and administers, regulates and integrates "its" society. As such, the course will examine the array of state forms across Europe in the early modern and modern period, to the end of discerning where and why the opening to democracy comes. The many challenges faced by the early democratizers of Western Europe will be traced through the middle of the twentieth century, after which consideration will be given to the recent transitions to democracy in Southern Europe in the 1970s and then in East Europe in the 1980s.

Spring semester. Morrison.

108. Comparative Politics: Greater China.

Examines patterns of political and economic development in China, Taiwan, Hong Kong and Singapore, comparing: the different paths to economic development; the role of authoritarianism and democracy in the development process and the dynamics of regime transitions; sources of regime legitimacy; and the China-Taiwan-Hong Kong nexus. Will also examine China's changing role in East Asia, the prospects for regional conflict, and issues in Sino-American relations.

This course may be counted toward a concentration in Public Policy or a program in Asian Studies.

Fall semester. White.

109. Comparative Politics: Latin America.

A comparative study of the political economy of the region focusing on Mexico, Chile, Guatemala, Nicaragua, El Salvador, and Cuba. Topics include: the tensions between representative democracy, popular democracy, and market economies; the conditions for democracy and authoritarianism; the sources and impact of revolution; the political impact of neo-liberal economic policies, and the economic impact of state intervention; and the role of the U.S. in the region.

Spring semester. Sharpe.

110. Comparative Politics: Africa.

A review of the historical evolution and current problems in politics of sub-Saharan Africa. Topics will include colonial legacies, nationalism, class, ethnicity, economic development, and the character of the state. Problems of public policy will be given special attention. Readings will focus on selected countries in Southern Africa, East Africa and West Africa. This course may be counted toward a concentration in Public Policy.

Not offered 1998-99. Hopkins.

111. International Politics.

An inquiry into problems in international politics. Topics will include major theories of international politics, war and the uses of force, and the management of various global economic issues.

Prerequisite: Pols 4 or equivalent.

Not offered 1998-99. Hopkins.

180. Thesis.

With the permission of the Department, Honors candidates may write a thesis for double course credit.

Psychology

ALFRED H. BLOOM, Professor*
KENNETH J. GERGEN, Professor
DEBORAH G. KEMLER NELSON, Professor¹
JEANNE MARECEK, Professor and Department Head
ALLEN M. SCHNEIDER, Professor
BARRY SCHWARTZ, Professor
ROBERT DUFOUR, Assistant Professor
FRANK H. DURGIN, Assistant Professor
WENDY HORWITZ, Assistant Professor¹
COLIN W. LEACH, Assistant Professor
ANDREW H. WARD, Assistant Professor
JANE GILLHAM, Visiting Lecturer
JEANNINE PINTO, Visiting Lecturer
JOANNE M. BRAMLEY, Administrative Coordinator

1 Absent on leave, fall semester, 1998.
3 Absent on leave, 1998-99.

* President of the College

The work of the Department of Psychology concerns the systematic study of human behavior and experience; processes of perception, learning, thinking, and motivation are considered in their relation to the development of the individual. The relations of the individual to other persons are also a topic of study.

The courses and seminars of the department are designed to provide a sound understanding of the principles and methods of inquiry of psychology. Students learn the nature of psychological inquiry and psychological approaches to various problems encountered in the humanities, the social sciences, and the life sciences.

A special major in Psychobiology is offered in cooperation with the Department of Biology. Consult either department chair.

REQUIREMENTS AND RECOMMENDATIONS

Psychology 1, Introduction to Psychology, is normally a prerequisite for further work in the Department.

A Course major consists of at least eight credits, excluding courses cross-listed in psychology that are taught only by members of other departments. Four should be core courses (with course numbers in the 30's): Physiological

Psychology, Learning and Action, Perception, Cognitive Psychology, Psychology of Language, Social Psychology, Personality, Concepts of the Person, Abnormal Psychology, and Developmental Psychology. Students may not take both Psychology 36, Personality, and Psychology 37, Concepts of the Person.

Students are required to meet a comprehensive requirement in their majors. In psychology, this may be accomplished in one of two ways: The first, open to all majors, is the comprehensive examination, prepared independently and completed early in the spring semester of the senior year. The second way is to complete a 2-credit senior thesis (one credit each semester of the senior year). The senior thesis program is open to students who have a high B average both in psychology and overall. Students must have an acceptable proposal, an advisor and sufficient background to undertake the proposed work. See Psychology 96, 97, and the departmental brochure.

Students should take at least one course that provides them with experience in conducting research.

Students majoring in psychology who wish to include study abroad are advised to complete the time away before the second semester of the junior year.

Students intending to pursue graduate work in psychology will find it useful to take either Statistics 2 or 2c, offered by the Department of Mathematics and Statistics. In addition they are strongly encouraged to take Psychology 25, Research Design and Analysis. If possible, students should enroll in both Statistics and Research Design before their senior year.

The Honors Program in Psychology

The psychology department offers qualified students the option of study in the Honors program. Students majoring in psychology in Honors must prepare three fields for external examination. Two of these preparations involve either two-credit seminars or two-unit sequences of courses; the third is a thesis, completed over the course of the senior year. In addition, Honors majors take part in Senior Honors Study in the spring of their senior year. Students must also meet the requirement for study in four core areas, as described previously.

The psychology department also offers a minor in the Honors program. Students with Honors minors in psychology must prepare one field for external examination. They must also take one-half credit of Senior Honors Study and at least one additional psychology core course.

A detailed description of the program is available in the departmental brochure.

TEACHER CERTIFICATION

Occasionally, majors in psychology wish to pursue certification for secondary school teaching. For such students, there are two normal routes to Social Studies Certification. One of these requires a major in the social sciences, plus four to six courses in social sciences outside the major field. Students majoring in History, Political Science, and Sociology and Anthropology are required to take at least four courses outside their major; students majoring in Economics or Psychology are required to take six. The other route to certification requires taking at least twelve semester courses in social sciences, of which six must normally be in one discipline and at least two more must be in a single other discipline. All students seeking social studies certification are required to take two courses in history. As of 1987, at

least one course in American history and one social science course focusing on Third World or non-Anglo subject matter are required. For further information, see the listing for the Program in Education.

COURSES

1. Introduction to Psychology.

An introduction to the basic processes underlying human and animal behavior, studied in experimental, social, and clinical contexts. Analysis centers on the extent to which normal and abnormal behavior are determined by learning, motivation, neural, cognitive, and social processes.

In addition to the course lectures on Tuesday and Thursday mornings, students are required to participate in a total of 4 small group discussions during the semester, each meeting for an hour and fifteen minutes. These groups meet during the Monday, Wednesday (1:15-4:00) or Friday (2:15-5:00) afternoon class periods. Students will be assigned to a group after classes begin, but should keep at least one of the afternoon periods open.

Psychology 1 is prerequisite to further work in the department.

Each semester. Staff.

5. Nature and Nurture.

An entry-level course which focuses on how nature and nurture combine to produce human universals, as well as human differences. It draws on insights derived from studies of the human infant, language and language acquisition, brain functioning, the perception and experience of emotions, and human intelligence. Consideration is given to the variety of methodologies and approaches that can shed light on nature/nurture issues—including those of evolutionary psychology and behavior genetics. Psychology 5 does NOT serve as prerequisite for further work in psychology.

No prerequisite.

Primary Distribution Course.

Not offered 1998-99. Kemler Nelson.

8. Identity and Community.

An entry-level course that explores the cultural tensions between needs for self exploration

and expression on the one hand, and social responsibility and interdependence on the other. Parallel issues of group identity vs. the melting pot mentality, and ethical pluralism vs. universalism are considered. Discussions will center on key texts, from existential works on social conflict and social psychological sources through contemporary multi-culturalism.

No prerequisite.

Primary distribution course.

Not offered 1998-99. Gergen.

9. Learning Languages.

Most humans learn a language very early in life and many of us learn more than one. This course examines the processes of language learning and the linguistic, psychological, social, and educational ramifications associated with being bilingual. The goal is to provide students with a foundation with which to analyze and study issues related to learning languages. The content should be of interest both to speakers of one language or of several languages. Psychology 9 does NOT serve as prerequisite for further work in psychology.

No Prerequisite.

Primary Distribution Course.

Fall semester. Dufour.

21. Educational Psychology.

(See Education 21.)

Fall semester. Renninger.

22. Counseling.

(See Education 25.)

Not offered 1998-99. Metherall-Brenneman.

23. Adolescence.

(See Education 23.)

Spring semester. Smulyan.

25. Research Design and Analysis.

How can one answer psychological questions? What counts as evidence for a theory? This course addresses questions about the formulation and evaluation of theories in psychology. The scientific model of psychological hypothesis testing is emphasized, including a treatment of statistical inference and the rigorous evaluation of empirical evidence. Emphasis is placed both on issues surrounding the formation of an effective research program and on developing critical skills in the evaluation of theories.

Pitfalls and alternative approaches are also discussed.

Workshop format.

Spring semester. Ward.

26. Prejudice and Social Relations.

An introduction to psychological approaches to prejudice based on such factors as ethnicity, gender, nationality, "race," religion, and sexuality. Moving from the inside out, perspectives range from the psychodynamic, including questions of individual identity, projection, and displacement, to the social, including issues of group identity, exclusion, ideology, and politics. Central questions include: Is prejudice similar across target, time, and place? Is prejudice natural and unavoidable? How do psychological approaches relate to more macro perspectives?

Primary Distribution Course.

Spring semester. Leach.

28. Introduction to Cognitive Science.

An introduction to the science of the mind from the perspective of cognitive psychology, linguistics, neuroscience, philosophy, and artificial intelligence. The focus is on the similarities and differences in the approach taken by researchers in these different fields in their study of cognitive mechanisms. Issues to be addressed: What does it mean to be able to think? What kind of computational architecture(s) is most appropriate to describe cognitive mechanisms? Is the mind an emergent property of the brain? What kind of hardware is required for thinking to occur? Can a computer have a mind?

Prerequisite: Psychology 1 or permission of the instructor.

Primary distribution course.

Spring semester. Dufour.

30. Physiological Psychology.

A survey of the neural and biochemical bases of behavior with special emphasis on sensory processing, motivation, emotion, learning, and memory. Both experimental analyses and clinical implications are considered.

Spring semester. Schneider.

31. Learning and Action.

This course explores elementary learning processes and how they combine with complex

cognitive, motivational, and social factors to influence what organisms do.

Fall semester. Schwartz.

32. Perception.

How is knowledge obtained through our senses? The study of perception addresses this question by seeking lawful relations between the physical world, experience, and physiology. Occasional laboratories during scheduled class hours.

Fall semester. Durgin.

33. Cognitive Psychology.

An overview of the psychology of knowledge representation, beginning from the foundations of perception, attention, memory, and language to examine concepts, imagery, thinking, decision-making, and problem solving.

Fall semester. Durgin.

34. The Psychology of Language.

An introduction to the central psychological processes at work in the use of language. The focus is on the structural features of spoken languages, with some attention paid to sign languages. Particular topics include language acquisition, speech production and processing. Weekly laboratories during scheduled class hours.

(Cross-listed as Linguistics 34.)

Fall semester. Dufour.

35. Social Psychology.

Social psychology argues that social context is central to human experience and behavior. This course provides a review of the field with special attention to the historical context of the theory and research. The dynamics of cooperation and conflict, group identity, conformity, social influence, help giving, aggression, persuasion, attribution, and attitudes are discussed.

Spring semester. Leach.

36. Personality.

An integration of personality theory and research. The course examines psychoanalytic, trait, behavioral, humanistic, and social cognitive approaches. Not open to students who have taken Psychology 37.

Not offered 1998-99.

37. Concepts of the Person.

An analysis of central conceptions of psychological functioning from both an historical and cultural perspective. Central attention is given to the developing concept of the person within the discipline of psychology from the turn of the century to the present. Theories of Freud, Jung, and the neo-Freudians receive attention, as well as more recent cognitive and trait formulations. Special attention is given to the conception of the person emerging within the post-modern period. Students who plan to take the seminar Personality Theory and Interpretation (Psychology 106) should not take Psychology 37. Not open to students who have taken Psychology 36.

Spring semester. Gergen.

38. Abnormal Psychology.

A consideration of major forms of psychological disorder in adults and children. Biogenetic, socio-cultural, and psychological theories of abnormality are examined, along with their corresponding modes of treatment.

Spring semester. Gillham.

39. Developmental Psychology.

A selective survey of cognitive and social development from infancy to adolescence. Major theoretical perspectives on the nature of developmental change are examined, including those of Piaget and his critics. Topics include the formation of social attachments, the foundations and growth of perceptual, cognitive, and social skills, gender typing, moral development, and the impact of parents and other social agents on the development of the child.

Fall semester. Pinto.

40. Visual Attention.

What we see depends on where we look. This course adopts a broad perspective on the concept of visual attention with particular emphasis on the role of eye-movements in the selection of visual information.

Not offered 1998-99. Durgin.

41. Children at Risk.

Chronic illness, divorce, war, homelessness, and chronic poverty form the backdrop of many children's lives. This course considers children's responses to such occurrences from

clinical, social, and developmental perspectives. Special emphasis is placed on the contributions of family and the social environment to the child's well-being or distress.

Spring semester. Horwitz.

42. Human Intelligence.

This course adopts a broad view of its topic, Human Intelligence. One major set of subtopics is drawn from the intelligence-testing (IQ) tradition. Other concerns include cognitive theories of intelligence, developmental theories of intelligence, everyday conceptions of intelligence, the relation between infant and adult intelligence, and the relation between human and animal intelligence.

Not offered 1998-99. Kemler Nelson.

44. Psychology and Women.

This course concerns psychological approaches to studying women and gender. Issues such as sexuality, motherhood, the body, and violence against women are examined, with special attention to the diversity of women's experiences. In addition, we study the ways that gender is represented in research and clinical theories, as well as in popular psychology.

Not offered 1998-99. Marecek.

45. Psychology of Oppression and Resistance.

This course examines the psychological position of the oppressed, with special attention to the "psycho-existential" perspective developed by Frantz Fanon in relation to decolonization movements, Hegel, Sartre, Gandhi, psychoanalysis, and ego psychology. Central questions include: How is identity social or political and what exactly is "identity politics?" Are there psychological consequences to subordination, akin to what has been called an "inferiority complex" or "mental slavery?" What constitutes resistance? When, why, and how does resistance occur? What is the role of violence/non-violence in resistance?

Fall semester. Leach.

46. Psychology of Self-Control.

What are the processes and strategies involved in the control of our own emotions, thoughts, and behaviors? When do these

strategies serve us well, and when do they contribute to pathology? This course examines the principle of self-control from a number of perspectives. Topics include delay of gratification, dieting, aggression, emotional regulation (e.g., control of anger and depression) and the disinhibiting effects of alcohol. Emphasis is placed on successes and failures of self-control, and their consequences for physical and psychological well-being.

Fall semester. Ward.

47. Applications of Social Psychology.

In what areas have the lessons of more than fifty years of social psychological research been applied, and how have those applications fared? This course examines both the successes and failures of those who have tried to put the theories and findings of social psychology into practice. Domains of inquiry include the application of social psychology to law, education, business, public policy, gender relations, clinical disorders, and peace and conflict. Emphasis is placed not only on the direct translation of laboratory findings to "real-world" settings but also on the practical value of theories in social psychology. In particular, a distinction is drawn between conducting applied research and conducting theory-driven research that is "applicable."

Fall semester. Ward.

48. Technology, Self and Society.

This course brings critical attention to the technological transformation of cultural life. Discussions treat issues of personal and cultural identity; conceptions of rationality and the body; and the production of intimacy. The implications for freedom and control, the democratization of pedagogy, and the potentials for community are also discussed.

Fall semester. Gergen.

49. Brain, Language and Cognition.

Basic concepts in neuropsychology (gross functional anatomy as well as neuronal aspects) as they apply to language and cognition are covered (eg., functional architecture, neuronal development, neuronal plasticity) from clinical, experimental, and computational perspectives. Students with background in psychology, linguistics, or biology are welcomed. In discussion format with lecture.

Not offered 1998-99. Dufour.

50. Abnormal Child Psychology.

This course covers several psychological disorders that often first appear in childhood and adolescence, including: autism and other developmental disorders, attention deficit disorder, conduct disorder, eating disorders and emotional disorders. Theories about the causes and treatment are discussed. There is a heavy emphasis on current research questions and empirical findings related to each disorder. Prerequisite: Psychology 38, Psychology 39, or instructor's permission.

Fall semester. Gillham.

52. Representations of Women's Identity.

(See English 82). Satisfies distribution requirement in group 1, not group 3.

Not offered 1998-99. Marecek and Blum.

57. Psychology and Nature.

Humans face severe environmental crises including pollution, resource depletion, and a precipitous decline in biodiversity. What are the psychological dimensions of environmental problems and how can psychology contribute to potential solutions? In particular, how do people envision their relationship to nature?

Psychology 57 fulfills the Social Sciences/Humanities requirement in Environmental Studies (and counts as a course in a Psychology major).

The course is taught in a seminar and workshop format, including the formulation of research projects on psychology and nature. Admission by permission of the instructor—no set prerequisite.

Not offered 1998-99. Horwitz.

60. Gender and Mental Health.

This course concerns women, men and mental health. Many types of psychological problems are markedly more common among one or the other gender. In asking why this is so, we examine the cultural, psychological, and biological lines of evidence. We also ask *which* women and *which* men are at risk; that is, how do economic status, ethnic identity, sexual orientation, age, etc., affect the risk of disorder? Other emphases include gender biases in conceptions of normality and abnormality, and in specific categories of psychological disorders.

Prerequisites: Psychology 1 and one of the following: Psychology 38, 44, Sociology and Anthropology 7 or Women's Studies 1.

Not offered 1998-99. Marecek.

62. The Social Construction of the Mind.

How are beliefs about the mind generated and sustained; what are the effects of current beliefs on social life; can these beliefs be changed? The course explores various social, rhetorical, and ideological processes that influence current constructions of the mental world.

Not offered 1998-99. Gergen.

63. Special Topics in Cognitive Psychology.

Selected problems from the current literature on human information processing and cognitive psychology are considered in detail. Emphasis is placed on the relationship between theories of cognition and current experimental findings. Also, the development of cognitive skills receives attention.

Not offered 1998-99.

64. Research Issues in Clinical Child Psychology.

This course addresses clinical topics (e.g., pervasive developmental disorder, anxiety, depression, chronic illness, sexual abuse), while considering specific problems of research (e.g., sampling strategies, reliability and validity, cross-sectional vs. longitudinal designs, qualitative analysis) as they pertain to clinical child psychology. Students learn to locate and evaluate current empirical studies as they discuss childhood problems.

Prerequisite: Introduction to Psychology and one of the following: Abnormal or Developmental Psychology, Research in Naturalistic Settings, Research Design and Analysis or Children at Risk.

Not offered 1998-99. Horwitz.

67. Research Issues in Developmental Psychology.

Childhood is a period of incredible change and growth; this rapid development makes designing developmental experiments fun and challenging. This course covers basic experimental terminology, design and psychological procedures and methods while allowing the student to design and perform a research project tailored to her/his interests.

Psychology

Not offered 1998-99.

68. Reading Culture.

A course in seminar format concerned with the values, ideologies, myths and power dynamics manifest in the ordinary, taken for granted world of everyday life. Attention is given to television, news reporting, film, advertising, music, clothing, architecture, and other cultural artifacts, and the ways in which they are shaped by psychological, social, rhetorical and ideological processes. Also focal is the formation of sub-cultures, identity politics, and the postmodern cultural transformation.

Gergen.

86. Philosophy of Mind and Psychology.

In practical life, we usually explain human actions by giving the person's reasons—his or her goals and beliefs—for performing them. In contrast, in experimental science, we attempt to explain behavior by finding laws in accordance with which it occurs. This course explores the extent to which the categories of explanation that come from practical life constrain or limit the scope of scientific explanations.

Prerequisite: Introductory courses in Psychology and Philosophy.

This course and a one-credit attachment (86A) constitute an honors preparation in the philosophy of psychology.

Cross-listed as Philosophy 86.

Spring semester.

87. Colloquium: Psychology, Biology and Economic Rationality.

This course offers a critical examination of the notion of economic rationality, exploring the role it plays in economics, in evolutionary biology (sociobiology), and in psychology. The implications of this notion for thinking about morality and about social organization are also considered.

Prerequisite: The course is open, by application, to advanced students in either biology, economics, philosophy, or psychology.

Not offered 1998-99. Schwartz.

90. Practicum in Clinical Psychology.

An opportunity for advanced psychology students to gain supervised experience working in off-campus clinical settings. Course require-

ments and evaluations are tailored to individual projects. Advance arrangements for placements should be made in consultation with the instructor.

Fall, 1998: Gillham. Spring, 1999: Horwitz.

91. Research Practicum in Physiological Psychology.

An examination of current issues in physiological psychology with emphasis on how lower animal research is used to understand the physiological basis of normal and abnormal human behavior. Topics include learning and memory, drug addiction and tolerance, obsessive-compulsive disorder, Alzheimer's disease, and cerebral lateralization. Students have the opportunity to learn laboratory techniques used in behavioral neuropharmacology.

Prerequisite: Psychology 30. By permission of the instructor.

Fall semester. Schneider.

92. Research Practicum in Psycholinguistics.

This course provides hands-on experience in performing research in psycholinguistics. Students learn the various steps associated with research in this field, including experimental design, construction and selection of the appropriate material to test hypotheses, methods used to test subjects, and statistical analyses commonly used in the field.

Prerequisite: Psychology 34 or 33 or permission of the instructor.

Not offered 1998-99. Dufour.

94. Independent Research.

Students conduct independent research projects. They typically study problems with which they are already familiar from their course work. Students must submit a written report of their work. Registration for Independent Research requires the sponsorship of a faculty member in the psychology department who agrees to supervise the work.

Each semester. Staff.

95. Tutorial.

Any student may, under the supervision of a member of the psychology department, work in a tutorial arrangement for a single semester. The student is thus allowed to select a topic of particular interest, and in consultation with a faculty member, prepare a reading list and work

plan. Tutorial work may include field research outside Swarthmore.

Each semester. Staff.

96, 97. Senior Thesis.

With the permission of the Department, students may conduct a year-long 2-credit research project in the senior year as one way to meet the comprehensive requirement. Such theses must be supervised by a member of the psychology department. The final product is evaluated by the supervisor and an additional reader. Students should develop a general plan by the end of the junior year and apply for departmental approval. By application. One credit each semester.

Both semesters. Staff.

SEMINARS

106. Personality Theory and Interpretation.

An exploration of major theories of human psychological functioning, with special emphasis on the process of exploration itself. Thus, critical inquiry is made into the theories of Freud, Jung, the neo-Freudians, Existential theory, and trait methods. At the same time a variety of readings in literary theory, rhetoric, hermeneutics, and related realms are used to elucidate the process by which views of the human personality are developed and sustained. Preliminary background in relevant areas of study recommended. By permission. Two credits.

Fall semester. Gergen.

128. Computational Models of Learning.

A study of computer-based representational formalisms and algorithms that facilitate learning behaviors with a focus on models inspired by biological sciences. Strong emphasis on the study of connectionist models that are based on neural network abstractions. Other approaches covered include genetic algorithms and symbol-based models. The course includes a laboratory component for hands-on experiments with various models and algorithms in the development of learning behaviors.

Prerequisites: Psyc 28 or Psyc 33 or CS 20 or CS 21 and by instructor's permission.

Cross-listed as CS 128.

Spring semester. Dufour and Meeden.

130. Physiological Psychology.

An analysis of the neural bases of motivation, emotion, learning, memory, and language. Generalizations derived from neurobehavioral relations are brought to bear on clinical issues.

Prerequisite: Psychology 30. By permission.

One credit.

Spring semester. Schneider.

131. Learning and Action.

See description of Psychology 31. The seminar considers in depth special topics of interest discussed in the Learning and Action course.

Prerequisite: Psychology 31. By permission. One credit.

Not offered 1998-99. Schwartz.

132. Perception and Attention.

See description of Psychology 32. In this course we do advanced theoretical and empirical work on psychological aspects of human perception. Emphasis is on individual research projects exploring forefront issues of visual learning and representation in domains of visual attention and eye-movements, space perception, object recognition, and the perception of visual qualities.

Prerequisite: Psychology 32 or 40. By permission.

One credit.

Spring semester. Durgin.

133. Cognitive Psychology.

See description of Psychology 33. Examination of foundational issues and theories in the empirical study of human cognition with an emphasis on insights from cognitive and biological sciences. Topics include thinking and deciding, memory, language, concepts, and perception.

Prerequisite: Psychology 33 or Psychology 28. By permission.

One credit.

Spring semester. Durgin.

134. Psycholinguistics.

See description of Psychology 34. The seminar considers in depth special topics of interest within the field. A research component is frequently included.

Psychology

Prerequisite: Psychology 34. By permission.

One credit.

Spring semester. Dufour.

135. Seminar in Social Psychology.

See description of Psychology 35. A critical exploration of substantive topics in social psychology and an interrogation of the field's perspectives and methods.

Prerequisite: Psychology 35. By permission.

One credit.

Fall semester. Leach.

138. Abnormal Psychology.

A study in depth of various theoretical perspectives on psychological disorders and their treatments. Underlying assumptions of each theory are considered, as well as various ways of producing knowledge about disorders and their treatments.

Prerequisite: Psychology 38. By permission.

One credit.

Fall semester. Marecek.

139. Developmental Psychology.

See description of Psychology 39. The seminar considers in depth special topics of interest within the field. A research component is included.

Prerequisite: Psychology 39. By permission.

One credit.

Not offered 1998-99. Kemler Nelson.

180. Thesis.

A thesis must be supervised by a member of the department. Must be taken as a 2-semester course for one credit each semester.

Both semesters. Staff.

199. Senior Honors Study.

Senior Honors Study in psychology consists of a series of student-run, weekly meetings in the first half of the spring semester. The meetings begin with reading selected by the faculty to connect the work of the students across their programs. Additional reading is chosen and presentations are made, by the students. The purpose is to enhance and integrate students' work in the Honors program. Following the student-run sessions, majors submit an essay which the external examiners evaluate. Minors do not prepare an essay. Majors enroll for 1 credit (section 1). Minors enroll for one-

half credit (section 2).

Spring semester. Staff.

An additional field, Philosophy of Psychology, can be prepared for external examination. See Psychology 86 and 86A.

Public Policy

Coordinator: ELLEN MAGENHEIM (Economics)¹

Committee: John Caskey (Economics)

Robinson Hollister (Economics) Acting Coordinator

Raymond Hopkins (Political Science)³

Gudmund Iversen (Mathematics & Statistics)

Roger Latham (Biology)

Meta Mendel-Reyes (Political Science)

Carol Nackenoff (Political Science)

Richard Rubin (Political Science)

Richard Valeyly (Political Science)

Robert Weinberg (History)

¹ Absent on leave, fall semester, 1998.

³ Absent on leave, 1998-99.

The concentration in Public Policy enables students to combine work in several departments toward both critical and practical understanding of public policy issues, including those in the realm of social welfare, health, energy, environment, food and agriculture, and national and global security. These issues may be within domestic, foreign, or international governmental domains. Courses in the concentration encompass the development, formulation, implementation, and evaluation of policy.

REQUIREMENTS AND RECOMMENDATIONS

The concentration in Public Policy may be taken together with a Course or Honors Examination major in any field or a minor in the Honors program. At a minimum, the concentration consists of six credits and an internship. The program of each concentrator should be worked out in consultation with the Coordinator of the Public Policy concentration and approved by the Coordinator, preferably at the same time as majors in the Course and Honors Programs are planned.

The Public Policy concentration consists of 6 credits of work. Basic academic requirements for the concentration cover three areas: (1) economic analysis, (2) political analysis, and (3) quantitative analysis. These may each be met by taking one course or seminar in each of the three categories; courses that fulfill these

requirements are listed below.

In addition to these three foundation courses, three credits must be taken from among the substantive policy courses listed below, one of which must be the Public Policy Thesis. These courses deal with substantive sectors and institutional aspects of public policy analysis. The substantive policy requirement may be fulfilled through courses and seminars. Only one credit of a two credit seminar can be counted toward the Public Policy requirements. Please note that seminars are limited in size and that most departments give priority to departmental majors and minors, so Public Policy concentrators might not be admitted. In addition, students should take into account course prerequisites when planning the concentration program.

INTERNSHIP

Some direct experience or practical responsibility in the field, through work in a public, private, or voluntary agency, is required for graduation with a concentration in Public Policy. Normally, students will hold internships between their junior and senior years. The internship program is supervised by the coordinator for the concentration. Planning for the internship experience should begin six to eight months before the time it might commence. The College has developed a network of contacts in Washington and overseas and would

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like to have qualified students each year to fill positions already identified. Funding for an internship is occasionally provided by the agency in which a person serves. Typically, however, students require support to cover their travel and maintenance costs during the ten to twelve weeks of a summer internship.

For students who are concentrators, the College attempts to provide support to those unable to fund themselves but such support cannot be guaranteed. Other possible sources of support for an internship include the James H. Scheuer Summer Internships in Environmental and Population Studies, the J. Roland Pennock Fellowships in Public Affairs, the Joel Dean Awards, the Sam Hayes III Research Grant, the Lippincott Peace Fellowships and the David G. Smith Internship in Health and Social Policy. Public Policy Concentration funding for domestic internships will be limited to \$2250; funding for international internships will be limited to \$2750. The total award from all College sources may not exceed \$3500. Information on each of these sources can be obtained in the Public Policy Concentration office, 105 Trotter.

PUBLIC POLICY THESIS

One of the requirements of the concentration, providing one of the three units of substantive policy work, is a senior thesis. The thesis requirement is designed to provide a structured opportunity to write a substantial paper on a public policy issue. It is especially aimed to allow those who have cultivated (through internships and academic work) a well-developed understanding of some policy question to complete research and analysis under the supervision of the Coordinator of the Public Policy concentration and one or more other core faculty. Paper topics may focus on national or international policy issues and may range widely within areas of competence.

Students writing a one-credit thesis should register for Public Policy 97 in the fall of the senior year; students doing a two-credit thesis should register for Public Policy 97 in the fall and Public Policy 98 in the fall or spring of the senior year. Only one credit of the two-credit thesis will count toward the six credits required

by the concentration.

HONORS PROGRAM REQUIREMENTS

Students sitting for honors may have a minor in Public Policy in one of three ways. First, they may complete a two-credit policy thesis and submit it as their minor preparation. Second, and alternatively, they may submit for external examination course or seminar work amounting to two credits in the policy concentration. Third, they may combine a one-credit thesis with a course or seminar. In the second case, they still must do their required concentration thesis.

Two credit work in policy issues might combine work in two policy courses for which a reasonable examination can be constructed and a suitable visiting examiner recruited. Policy work examined as a minor should meet three criteria: first, that the policy work fit together in some fashion that is coherent and examinable; second, that each student should take responsibility for developing the course and/or seminar combination (which will be judged on its practicability by the Public Policy Concentration Committee); and third, the work must meet the College requirement that the work be outside the student's major department. In those circumstances in which it is essential to include work from the student's major department, a student can offer a three-unit package of courses, two of which must be from outside the student's major department. Examples of such policy study for a minor in honors are: (1) the combination of a course on welfare policy and a course on health policy or (2) the combination of work on economic development and a history or political science class on some region in which development issues are a central theme. These are but two illustrative examples. Combinations of this sort would be arrived at through consultation with the Coordinator of the Concentration who could then recommend them to the Committee for approval.

The requirement that Public Policy honors work be done, at least in part, outside the student's major department is relevant also to those students offering a two-credit thesis for examination. In the case of a two-credit thesis, the Concentration Coordinator will determine

that at least half of the thesis represents work done outside the student's major department.

The form of external examination (e.g., 3-hour written exam, oral exam alone) will depend on the nature of the student's preparation (e.g., thesis, course or seminar combination). Students minoring in Public Policy will, for their Senior Honors Study (.5 credit), write a short (2-5 pages) paper the focus of which will depend on what the student is using as her honors preparation.

AREAS OF POLICY FOCUS

Some students may wish to focus their substantive work in policy heavily in a particular field, e.g. environmental studies, food studies, welfare issues, health or education. Given the size and interests of the faculty, not every area of public policy is well represented in courses and faculty. Nevertheless, there are a number of policy areas in which a student can take multiple courses, often in a variety of departments. Courses that fulfill the Public Policy foundation requirements in political analysis, economic analysis, and quantitative analysis as well as other courses that count toward the Concentration are listed below.

Foundation Requirements

Political Analysis Courses

Pols 2. American Politics

Economic Analysis Courses

Econ 11. Intermediate Microeconomics

Econ 41. Public Finance

Econ 141. Public Finance*

Quantitative Analysis Courses

Stat 1. Statistical Thinking

Stat 2. Statistical Methods

Stat 2C. Statistics

Stat 53. Mathematical Statistics

Econ 31. Statistics for Economists

Econ 35 or 135. Econometrics*

Engin 57/Econ 32. Operations Research

Policy Courses and Seminars* (arranged by department)

PP 97/98. Public Policy Thesis

PP 199. Senior Honors Study

Pols 15. Ethics and Public Policy

Pols 23. Presidency, Congress, Court

Pols 33. Race, Ethnicity and Public Policy

Pols 36. Multicultural Politics in the U.S.

Pols 38. Public Service, Community Organizing, and Social Change

Pols 41. Political Economy and Social Policy

Pols 45. Defense Policy

Pols 47. Politics of Famine and Food Policy

Pols 52. European Welfare State

Pols 62. Development and Discontent

Pols 65. Politics of Population

Pols 68. International Political Economy

Pols 108. Comparative Politics: China*

Pols 110. Comparative Politics: Africa*

Pols 111. International Politics*

Econ 5. Savage Inaccuracies: The Facts & Economics of Education in America (cross-listed with Educ 69)

Econ 41. Public Finance

Econ 42. Law and Economics

Econ 43. Public Policy and the American Family

Econ 44. Urban Economics

Econ 51. The International Economy

Econ 53. The International Political Economy

Econ 61. Industrial Organization

Econ 73. Women and Minorities in the Economy

Econ 75. Health Economics

Econ 76. Economics of the Environment and Natural Resources

Econ 81. Economic Development

Econ 82. Political Economy of Africa

Econ 83. Asian Economics

Econ 101A. Economic Theory: Advanced Microeconomics*

Econ 141. Public Finance*

Econ 151. International Economics*

Econ 161. Industrial Organization and Public Policy*

Econ 171. Labor and Social Economics*

Econ 181. Economic Development*

Educ 68. Urban Education (cross-listed with Soc/Anth 68)

Educ 69. Savage Inaccuracies: The Facts &

Public Policy

Economics of Education in America (cross-listed with Econ 5)

Hist 49. Race and Foreign Affairs

Hist 54. Women, Society and Politics

Soc/Anth 68. Urban Education (cross-listed with Educ 68)

Descriptions of the courses listed above can be found in each department's course listings in this Bulletin.

*Please note that seminars are limited in size and that most departments give priority to departmental majors and minor, so Public Policy concentrators might not be admitted.

For more information on the Public Policy concentration, internships, theses and related topics, please see our web page at: <http://www.swarthmore.edu/SocSci/PublicPolicy>.

Religion

J. WILLIAM FROST, Professor, Director of the Friends Historical Library
DONALD K. SWEARER, Professor³
ELLEN M. ROSS, Associate Professor
MARK I. WALLACE, Associate Professor and Chair
CYNTHIA M. BAKER, Visiting Assistant Professor
YVONNE P. CHIREAU, Assistant Professor
NATHANIEL DEUTSCH, Assistant Professor³
STEVEN P. HOPKINS, Assistant Professor
RUQAYYA Y. KHAN, Visiting Assistant Professor
EILEEN McELRONE, Administrative Assistant

³ Absent on leave, 1998-99.

The Department of Religion investigates the phenomenon of religion through the study of ritual and symbol, myth and legend, story and poetry, scripture and theology, festival and ceremony, art and music, and moral codes and social values. The Department seeks to develop ways of understanding these phenomena in terms of their historical and cultural particularity as well as their common patterns.

Courses offered on a regular cycle present the development of Judaism and Christianity as well as the religions of India, China, Japan, Africa, Europe and the Americas. Breadth in subject matter is complemented by strong methodological diversity; questions raised include those of historical, theological, philosophical, literary-critical, feminist, sociological, and anthropological interests. *This multifaceted focus makes religious studies an ideal liberal arts major.*

REQUIREMENTS AND RECOMMENDATIONS

Students are encouraged to begin their study of religion with Religion 1 or one of the courses numbered 1 through 13. (Majors are required to take at least one of these courses.) As PDCs, Religion 1 and Religion 8 introduce students to seminal themes and methods in the study of religion. Other courses in this group prepare students in comparative, historical, philosophical, literary, and phenomenological approaches to religion. Successful completion of at least two courses is normally required for admission

to seminars, and is also prerequisite for admission to a major in Course or a major or minor in Honors.

The major in Religion is planned through consultation with faculty members in the Department. To ensure breadth in the program of study all majors must take at least one course from two curricular groups which include the several religious traditions and the varied modes of analysis represented in the Department (see "Majoring in Religion at Swarthmore"). Students in both Course and the Honors Program are expected to have taken the background courses required for work in specific seminars. A component of a major's program of study may include study abroad planned in collaboration with the Department. In addition to the introductory course and distributional requirements, majors are required to complete the Religion Capstone, 95, The Senior Symposium: Religion Café, a weekly symposium, over espresso and snacks, for senior majors on seminal themes, theories, and methods in the comparative, cross-cultural study of religion.

Majors are required to complete at least eight credits in Religion, including the senior symposium, to meet Department graduation requirements.

HONORS PROGRAM

The normal method of preparation will be done through three seminars, although with

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the consent of the Department work done in a two-credit thesis, one-credit thesis/course combination, or in a combination of two courses (including attachments and study abroad options) can count for one preparation. In general, only one such preparation can consist of non-seminar-based studies.

The mode of assessing a student's three two-credit preparations in Religion (seminars or course combinations, but not two-credit theses) will be written papers of not more than 4000 words for each preparation to be completed in the spring of the senior year. In the late fall of the senior year external evaluators will provide questions for the honors papers. These papers will be written independently and presented to the evaluators for oral examination during Honors Week in the spring of the senior year. The student's portfolio will consist, then, of the senior honors papers and corresponding preparation syllabi—and a thesis for the student who selects this option.

Students who have a minor in Religion do a single two-credit preparation that must be in a seminar. In addition, minors are required to complete at least two courses in Religion (including any prerequisites for the seminar) prior to or in conjunction with any seminar. Students who minor in Religion, in the spring of the senior year, will also write a paper of not more than 4000 words to complete their two-credit preparation in the minor.

COURSES

1. Religion and Human Experience.

This course introduces the nature of religious worldviews, their cultural manifestations, and their influence on personal and social self-understanding and action. The course explores various themes and structures seminal to the nature of religion and its study: sacred scripture; visions of ultimate reality and their various manifestations; religious experience and its expression in systems of thought; ritual behavior and moral action. Members of the Department will lecture and lead weekly discussion sections.

Primary distribution course.

Fall semester. Ross, Chireau and Staff.

2B. Religion in America: A Multicultural Approach.

An introductory survey that explores religion in the United States from an historical perspective, emphasizing cultural diversity and religious pluralism.

Not offered 1998-99. Chireau.

3. Hebrew Bible and the Ancient Near East.

An introduction to the Hebrew Bible and the religion of ancient Israel within the context of other ancient Near Eastern religious traditions. The Hebrew Bible will be read closely in English translation with special attention to historical, exegetical, ethical, sociological, and gender issues. In addition to the Hebrew Bible, we will have occasion to read literature from Mesopotamia, Egypt, and Canaan; samples of ancient Jewish and Christian biblical interpretation; and some later retellings of biblical narratives from a variety of historical periods and perspectives.

Fall semester. Baker.

4. New Testament and Early Christianity.

An introduction to the New Testament and its development. The New Testament will be read closely in English translation, with special attention to problems of redaction and literary construction, as well as the formation of early Christian orthodoxy and heresy. In addition to the New Testament, several Gospels which were not included in the orthodox canon will be read. Finally, the figure of Jesus will be examined in light of Jewish and other contemporary traditions.

Spring semester. Baker.

5. Problems of Religious Thought.

Study of contemporary religious and cultural problems.

Not offered 1998-99. Wallace.

6. War and Peace.

An analysis of the moral issues posed by war, with consideration of the arguments for holy wars, just wars, real politik, and pacifism. The first part of the course will trace the evolution of major ideas of war from the Bible to the present. A study of America's wars since 1940 will show the application of these ideas in this nation's response to organized violence.

Fall semester. Frost.

7B. Women and Religion.

This course will examine the variety of women's religious experiences in the United States. We will read a number of primary and secondary texts that explore the diverse ways that women have historically experienced/made sense of the sacred. Topics will include: the construction of gender and religion; religious experiences of women of color; spiritual autobiographies and narratives by women; WICCA and witchcraft in the United States; feminist and womanist theology.

Fall semester. Chireau.

8. Patterns of Asian Religions.

A thematic introduction to the study of religion through an examination of selected texts, teachings, and practices of the religious traditions of South and East Asia structured as patterns of religious life. Materials taken from the Hindu and Buddhist traditions of India, the Confucian and Taoist traditions of China, and from Zen in Japan. Themes include myth and cosmology, asceticism and shamanism, personal identity and community, religious language and the experience of the divine, narrative and gender.

Primary distribution course.

Spring semester. Hopkins.

9. The Buddhist Traditions of Asia.

This course explores the unity and diversity of the Buddhist tradition within the historical and cultural contexts of South, Central, and East Asia.

Not offered 1998-99. Swearer.

10. African American Religions.

What makes African-American religion "African" and "American"? Using text, films, and music, we will examine the sacred institutions of Americans of African descent. Major themes will include: Africanisms in American religion; slavery and religion; gospel music; African American women and religion; black and womanist theology; The Civil Rights Movement; and Islam and urban religions. Field trips, including visits to Father Divine's Peace Mission and the first independent black church in the United States, Mother Bethel A.M.E. Church.

Fall semester. Chireau.

11B. Introduction to Islam.

The historical origins and development of Islam will be studied in light of the sources that have shaped it. Themes to be explored include the central doctrines of Islam as derived from the Qur'an and traditions (sunnah), the development of Islamic law (shari'ah), the Shi'ite alternative, the growth of Muslim theology, philosophy, and mysticism (Sufism), and controversial issues among contemporary Muslims.

Fall semester. Khan.

12. The History, Religion & Culture of India I: From the Indus Valley to the Hindu Saints.

A study of the religious history of India from the ancient Indo-Aryan Civilization of the north to the establishment of Islam under Moghul rule. Topics include the ritual system of the Vedas, the philosophy of the Upanishads, the rise of Buddhist and Jain communities, and the development of classical Hindu society. Focal themes of hierarchy, caste and class, purity and pollution, gender, untouchability, world-renunciation and the construction of a religious defined social order.

(Cross-listed as History 12)

Fall semester. Hopkins.

13. History, Religion and Culture of India II: From Akbar to Gandhi and the Voices of Untouchable Liberation.

The religious history of India from the advent of Islam to the present. From the Moghuls to the Hindu nationalist movements, and Ambedkar's legacy to the present.

Not offered 1998-99. Hopkins.

14B. Christian Life and Thought in the Middle Ages.

Survey of western religious culture and thought from the early to the late Middle Ages.

Not offered 1998-99. Ross.

15B. Philosophy of Religion.

This course considers Anglo-American and Continental philosophical approaches to religious thought using different disciplinary perspectives. Topics include rationality and belief, proofs for existence of God, problem of evil, interreligious dialogue, feminist revisionism, and postmodernism. Thinkers include Kant, Kierkegaard, Nietzsche, Wittgenstein, Buber, Kristeva, Ricoeur, Levinas, Hegel, Abe, and

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Wiesel.

(Cross-listed as Philosophy 16.)

Fall semester. Wallace.

16B. Rabbinic Thought and Literature.

This course will examine the thought, literature, and social context of rabbinic religion from the fall of Jerusalem to the redaction of the Babylonian Talmud. Topics will include the historical development of rabbinic culture, the role and character of rabbinic biblical exegesis (Midrash), the nature and implementation of rabbinic law (Halakha), early Jewish mysticism and magic, and rabbinic formulations of gender and sexuality. Primary sources will be read in English translation.

Fall semester. Baker.

17B. Midrash Tisch.

Before Deconstructionism there was Midrash, a sophisticated, imaginative, and entertaining method of interpreting the Bible. Open to students with intermediate knowledge of Hebrew and above.

Not offered 1998-99. Deutsch.

18B. Modern Jewish Thought and Literature.

A close reading of modern Jewish works. We will examine topics such as Hasidism, Haskalah (Jewish Enlightenment), Zionism, the Holocaust, and twentieth century Jewish philosophy.

Not offered 1998-99. Deutsch.

19B. Introduction to Jewish Mysticism.

This course will survey the history and literature of Jewish mysticism, beginning with Merkabah mysticism, continuing through the German Pietists and the Kabbalah, and ending with Sabbatianism and Hasidism.

Not offered 1998-99. Deutsch.

20B. Prophets and Visionaries: Christian Mysticism Through the Ages.

Course considers topics in the history of Christian mysticism.

Not offered 1998-99. Ross.

21. "The Friends of God": The Great Mystics of Islam.

This course will focus on Islamic Mysticism (Sufism), its theory and practice, as expressed in the prose and poetry of some of the great-

est mystics, such as 'Attar, Ansari, Ibn al-'Arabi, Rumi, Hafiz, and others.

Not offered 1998-99. Staff.

22. Religion and Ecology.

The challenge of the ecological crisis to contemporary religious thought and practice. Topics include the history of environmental thought in Western philosophy, theology, and biblical studies; the value of Native American and American nature writings; and the contemporary relevance of neopagan, ecofeminist, deep ecology, and Asian ecological worldviews. Readings will be drawn from M. Heidegger, Book of Job, Buddhist scriptures, J. Muir, Black Elk, E. Abbey, S. Griffin, B. McKibben, C. Hyun-Kyung, and R. Ruether.

Spring semester. Wallace.

23B. Quakerism.

The history of the distinctive religious and social ideas and practices of Friends from the 1650s to the present. Special emphasis will be placed on changes in worship and theology caused by the enlightenment, evangelicalism, and modernism. There will be comparisons among English, American, and Third World Friends. There will be assessment of the contributions of Quakers to reform movements: Indian rights, anti-slavery, the treatment of the insane, prison reform, temperance, women's movement, and peace.

Spring semester. Frost.

24B. From Vodou to Voodoo: African Religions in the Old and New Worlds.

Is there a kindred spirituality in the ceremonies, music, and movements of African religions? This course explores the dynamics of African religions throughout the Diasporas.

Not offered 1998-99. Chireau.

25B. Black Women and Religion in the United States.

This course explores how social, cultural and political forces have intersected to inform black women's personal and collective attempts at the definition of a sacred self.

Spring semester. Chireau.

26B. Buddhist Social Ethics.

A study of the doctrinal foundations of

Buddhist social ethics; classical conceptions of individual and social well-being; and contemporary Buddhist social activists.

Not offered 1998-99. Swearer.

27B. Asian Religions in America.

An exploration of various forms of the appropriation, establishment, and transformation of Hinduism, Buddhism, and Islam in America.

Not offered 1998-99. Swearer.

28. Ritual and Image in Buddhist Traditions.

An interdisciplinary exploration of the unity and variety of Buddhist traditions of Asia, within their historical development. Our goal will be to understand Buddhist visual arts (including narrative and iconic sculpture and painting, and shrine and monastic architecture) and material culture (such as shrines and their relics, pilgrimage places, mummies and portraits, and texts), in relation to ritual practice.

Prerequisite: ARTH1 or 3, or RELG 1, 8, 9, 12, or 13. Counts toward a program in Asian Studies.

(Cross-listed as ARTH 38.)

Spring semester. Graybill.

29. Monasticism and the Arts in the Christian Middle Ages.

Survey of Christian monastic contributions to the arts in the Middle Ages.

(Cross-listed as Art History 46.)

Not offered 1998-99. Ross and Cothren.

30B. The Power of Images: Icons and Iconoclasts.

A cross-cultural, comparative study of the use and critique of sacred images in Biblical Judaism, Eastern Christianity, Hindu, Buddhist, and Jain traditions of India.

Not offered 1998-99. Hopkins.

31B. Religion and Literature: From the Song of Songs to the Hindu Saints.

A cross-cultural, comparative study of religious literatures in Jewish, Christian, Islamic, and Hindu traditions. How "secular" love poetry and poetics have both influenced and been influenced by devotional poetry in these traditions, past and present. Readings

include the Hebrew Song of Songs, Dante and the Troubadours; the Flemish female saint-poet Hadewijch and San Juan de la Cruz; the Sanskrit plays of Kalidasa; South Indian Tamil poems of love, war, and religious devotion; Rajasthani women's wedding songs, and love poems to the Prophet Muhammad.

Spring semester. Hopkins.

32B. A Path to Theocracy: The Twelver Shi'is of Iran.

This course examines the origins and development of Shi'ism in Iran focusing on modern religious and political developments.

Not offered 1998-99. Staff.

37. Greek and Roman Religion.

(See Classics 37.)

38B. Religion as a Cultural Institution.

(See Sociology and Anthropology 70.)

40. Three Thousand Years of Jewish Messiahs.

This course provides a historical and thematic survey of the ideas of messiah, messianism, and the messianic age in Judaism. We will trace messianic figures—literally, "anointed ones"—from their origins in Israelite monarchy legends and biblical prophetic traditions, through Jesus and Bar Kokhba under the Roman Empire and Abu Isa and Sabbatai Zvi under Islamic rule, up to the early modern messianic movements within Hasidism and Zionism and the very recent messianic fervor focused on the Lubavitcher Rebbe. Each example will be explored with close attention to its sociopolitical and confessional-spiritual contexts and consequences.

Spring semester. Baker.

41. Secrecy and Revelation in Islam.

An exploration of a dialectic of the secret in medieval and modern Islamic texts. What is a secret and how does secrecy invite revelation? How does secrecy function in the realms of word, symbol, and space in Islam? Through a reading of a variety of texts, we will address these questions and also study the multiple ways in which secrecy and revelation are connected with self and the other; with conceptions of truth and the absolute; with sexual desire, gender and the body; with reality, deception, and illusion; with child-

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hood and death. We will read translations of secular and Sufi love poetry, Qur'anic and hadith material, diverse types of narratives such as stories, epistles, romances, biographies, and treatises.

Spring semester. Khan.

93. Directed Reading.

Staff.

95. Religion Café: Senior Symposium.

A weekly symposium, over espresso and snacks, for senior majors on seminal themes, theories, and methods in the comparative, cross-cultural study of religion. Course will argue for the inherently multidisciplinary nature of religious studies by examining various approaches to the phenomenon of religion, from psychoanalysis and post-structuralist theory to anthropology, literature, philosophy, and social history. Themes include religion, violence, and the sacred; ritual, symbol and pilgrimage, purity and pollution; religious experience, gender, and embodiment; civil religion, orientalism, colonialism and power. Interpreters will include Mircea Eliade, Victor Turner, Rene Girard, Mary Douglas, Mikhail Bakhtin, Carolyn Walker Bynum, and Michel Foucault.

Fall semester. Hopkins and Staff.

96. Thesis.

Staff.

Jesus in History, Literature, and Theology. (Seminar: 101)

Areas of exploration may include the various quests for the historical Jesus; the miracles, parables, and passion in both canonical and noncanonical texts; christological definitions; the depictions of Jesus as Mother and Lover in medieval piety; the theological tracts and the philosophical "Lives of Jesus" of the 19th century; the Black Messiah and the political liberator; and the figure of Jesus in ecumenical discussion. Forays will also be made into art, film, fiction, and popular culture.

Prerequisite: Religion 4, 16, 17, 18, 106, 108, or 109, or permission of the instructor.

Spring semester. Ross.

Folk and Popular Religion in the United States. (Seminar: 102)

This seminar investigates the cultural complexity of the American religious experience

through the lens of folk and popular traditions. *Not offered 1998-99.* Chireau.

Women and Spirituality. (Seminar: 103)

Using various methodological approaches and texts by Native American, African-American and Euro-American women writers, we will examine women's spiritual experiences, traditions and religious healing cross-culturally.

Prerequisites: Religion 24, 26, 33, or permission of the instructor.

Not offered 1998-99. Chireau.

Buddhism and Society in Southeast Asia. (Seminar: 104)

A multidisciplinary study of Theravada Buddhism against the historical, political, social, and cultural backdrop of Sri Lanka, Burma, and Thailand.

Prerequisites: Religion 8, 9, 12, 32, or permission of the instructor.

Not offered 1998-99. Swearer.

Religion and Society. (Seminar: 105)

How have religious ideas and institutions shaped and been influenced by American culture? Topics include the varieties of Protestantism, Roman Catholicism and Judaism, and contemporary religious practices, church and state.

Not offered 1998-99. Frost.

Contemporary Religious Thought. (Seminar: 106)

Study of the major theological options in the West since the Enlightenment.

Not offered 1998-99. Wallace.

Liberation Theology. (Seminar: 107)

A study of the principal themes of liberation theology as it has developed in Latin America during recent decades. Readings will be drawn from such Latin American theologians as Boff, Gutierrez, and Segundo. Attention will also be given to the relationship of liberation theology to the Roman Catholic tradition, to the social and political movements which it has influenced, and to its critics.

Prerequisite: Religion 4, 6, or the permission of the instructor.

Spring semester. Lacey.

Poets, Saints and Storytellers: Religious Literatures of India. (Seminar: 108)

The major forms of Indian religious culture through the lenses of its varied regional and pan-regional literatures, focusing on gender, the passions, and religious devotion.

Not offered 1998-99. Hopkins.

Afro-Atlantic Religions. (Seminar: 109)

Is there a kindred spirituality in the ceremonies, music, and movements of African religions? This course explores the dynamics of African religions throughout the Diasporas.

Spring semester. Chireau.

Religious Belief and Moral Action. (Seminar: 110)

Using Buddhist, Hindu and Christian materials, course will analyze concepts of virtue and moral reasoning, the religious view of what it means to be a moral person, and the religious evaluation of a just society.

Not offered 1998-99. Swearer.

Medieval Theology and Contemporary Feminism. (Seminar: 111)

This course explores the integration of recent women's studies scholarship with themes in medieval spiritual theology.

Not offered 1998-99. Ross.

Postmodern Religious Thought. (Seminar: 112)

The problem of ethics and belief beyond the philosophical foundations of traditional religious thought. Readings include Kierkegaard, Nietzsche, Heidegger, Barth, Derrida, Levinas, Bataille, and Kristeva.

Not offered 1998-99. Wallace.

From Buddha's Relics to the Body of God: Hindu and Buddhist Devotion. (Seminar: 113)

A comparative historical and thematic exploration of Hindu and Buddhist forms of devotion in South and Southeast Asia.

Not offered 1998-99. Hopkins.

Love and Religion. (Seminar: 114)

An exploration of the concept of "love" in selected western, near eastern and Indian traditions. The uses of love and sexuality, the body and the passions, in religious discourse to describe the relationship between the human

and divine. Sources range from Plato and the Troubadours to Angela of Foligno, and from Bengali devotional poetry to motions of "love" in a Tamil family. Major theoretical questions—the culture construction of emotions, the erotic life, the body, and religion—will be derived from Nussbaum, Biale, Bynum, Ramamujan, and Trawick.

Fall semester. Hopkins.

The Gnostic Imagination: Dualism from Antiquity to Harold Bloom. (Seminar: 115)

This course examines the problem of dualism and the history of dualistic religious traditions from the Gnostics and Mandeans of Late Antiquity to the recent writings of Harold Bloom.

Not offered 1998-99. Deutsch.

The Body in Late Antiquity. (Seminar: 116)

An examination of different views of the body (human, angelic, and divine) in Late Antiquity, with special emphasis on sexuality, gender, divinity, and mystical transformation.

Not offered 1998-99. Deutsch.

Hasidism: From Bialystok to Brooklyn. (Seminar: 117)

We will examine the origins of Hasidism, read the tales of its legendary founder (in Shivhei Ha-Besht), and discuss the rapid spread of the movement throughout Eastern Europe.

No prerequisites.

Not offered 1998-99. Deutsch.

Gender and Judaism. (Seminar: 118)

Using feminist insights and other critical and constructive tools, we will explore gender and sexuality within Judaism through a broad range of media, including ancient and contemporary narrative, midrash, and legal codes; film; ritual; political activism; and future fiction.

Spring semester. Baker.

Sociology and Anthropology

JOY CHARLTON, Professor³
FATEMA MERNISSI, Cornell Visiting Professor⁵
MICHAEL MULLAN, Professor
BRAULIO MUÑOZ, Professor and Chair
STEVEN I. PIKER, Professor
ROBIN E. WAGNER-PACIFICI, Professor
MIGUEL DIAZ-BARRIGA, Associate Professor
MARIS GILLETTE, Visiting Assistant Professor
BRUCE GRANT, Assistant Professor
LISA HAJJAR, Visiting Assistant Professor
SARAH WILLIE, Assistant Professor
MICHAEL SPEIRS, Visiting Instructor
LAURA JACKSON, Lecturer
ROSE MAIO, Administrative Assistant

3 Absent on leave, 1998-99.

5 Spring semester, 1999.

The program of this department emphasizes that Sociology and Anthropology are engaged in a common intellectual task. Studies in the department are directed toward understanding the order, meaning, and coherence of life in human societies and cultures, as well as the pressures and contradictions that produce patterns of conflict and change. Courses variously emphasize the comparative study of societies and cultures, the conditions of social organization as well as disorganization, evolution and the bases of human adaptation, change as well as continuity, gender and culture, the symbolic aspects of human social life.

Emphasis is also placed on the relevance of Sociology and Anthropology to the study of contemporary and, particularly, American society, and to contemporary social problems. The department strongly encourages students to carry out their own research and offers internship opportunities as well as courses in research methods.

In addition to exploring the mutuality of Sociology and Anthropology, members of the department and their courses have many links to neighboring disciplines such as Biology, Education, English, History, Literature, Philosophy, Psychology, and Religion. The department also participates in a Special Major in Linguistics and BioAnthropology.

REQUIREMENTS AND RECOMMENDATIONS

Courses numbered 1 through 19 may serve as points of entry for students wishing to begin work in the department. Enrollment in these courses is unrestricted, and completion of one of them will normally serve as prerequisite to all other work in the department (Some courses may, however, with permission of the instructor, be taken without prerequisite.)

Applicants for the major will normally be expected to have completed at least two courses in the department. Majors will complete a minimum of eight units of work in the Department, including a double-credit thesis tutorial normally to be taken during the fall and spring semesters of the senior year. The Research Design course, SA 21, is strongly recommended for majors, and spring semester of the junior year is the ideal time to take it, as it offers important preparation for the senior thesis project.

Students contemplating teacher certification would normally schedule their program in a semester which does not conflict with their senior thesis. Such programs should be developed in close consultation with advisors in the Education Program.

The department emphasizes the importance of familiarity with appropriate elementary statis-

tics as well as computer literacy, both for work taken at the College and for subsequent career development. Toward underlining this, the Department crosslists Statistics courses 2 and 2c (listed as, respectively, Sociology and Anthropology 27 and 28).

Major and minor in the Honors Program: Candidates for honors in Sociology & Anthropology must complete three honors preparations, one of which must be S&A 180, Thesis. The other two preparations may be a seminar, or, with permission, course plus attachment, paired upper level courses, or foreign study. Majors in the honors program must also complete one unit of senior honors study. Minors in the honors program must complete one preparation and prepare a specified paper as part of their senior honors study. See "Majoring in Sociology & Anthropology" for additional information.

AREAS OF SPECIAL CONCENTRATION IN SOCIOLOGY AND ANTHROPOLOGY

Teaching and research interests of members of the department cluster to create a number of subject matter areas. Students who are interested in one of these are encouraged to meet with the indicated department members to plan a program of study.

- (1) Social Theory and Social Philosophy (Diaz-Barriga, Grant, Muñoz, Piker, Wagner-Pacifi, Willie)
- (2) Human Adaptation, Cultural Ecology, and Human Evolution (Piker, Speirs)
- (3) Modern Society (Charlton, Diaz-Barriga, Grant, Hajjar, Wagner-Pacifi, Willie)
- (4) Cultural and Ethnic Pluralism (Charlton, Diaz-Barriga, Grant, Hajjar, Muñoz, Willie)
- (5) Religion and Culture (Charlton, Grant, Hajjar, Piker)
- (6) Psychology and Culture (Charlton, Piker)
- (7) Sociology of Art and Intellectual Life (Grant, Muñoz, Wagner-Pacifi)
- (8) Modernization and Development (Diaz-Barriga, Hajjar)
- (9) Inequality (Charlton, Diaz-Barriga, Hajjar, Wagner-Pacifi, Willie)

- (10) Political Behavior and Culture (Diaz-Barriga, Grant, Hajjar, Wagner-Pacifi, Willie)
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CERTIFICATION FOR SECONDARY SCHOOL TEACHING

There are two normal routes to Social Studies certification. One of these is through a major in the social sciences, plus four to six semesters of courses in other social sciences. Students majoring in History, Political Science, and Sociology-Anthropology are required to take at least four courses outside their major; students majoring in Economics and Psychology are required to take six. The other route to certification is by taking at least twelve semester courses in social sciences, of which six must normally be in one discipline and at least two more must be in a single other discipline. All students seeking social studies certification are required to take two courses in history. At least one course in American history and one social science course focusing on Third World or non-Anglo subject matter are required.

COURSES

1. Modern America: Culture, Society, and State.

This course will explore central themes and points of conflict in American life, authority, community, sexuality, work, personal identity, politics, and heroism. This exploration will proceed by way of an analysis both of the institutional representations of these central issues and their cultural expressions.

Primary distribution course.

Not offered 1998-99. Charlton.

2. Nations and Nationalisms.

Nationalist movements around the world have risen to the fore in the late twentieth century by drawing on very malleable images of culture, patriotism, and belonging. This course examines different kinds of nationalist discourse through recent anthropological and sociological analyses of ethnicity, class, and the use of symbolism in complex societies. This course may be counted toward a concentration in

Sociology and Anthropology

Interpretation Theory.

Primary distribution course.

Fall semester. Grant.

3. Social Conflict and Social Change.

Social conflicts arise as a result of competing visions and agendas among groups with different social and political identities. Social changes are the consequences of processes to resolve such conflicts, whether through conciliatory or violent means. This course studies the constructions of socio-political identities (e.g., race, class, nation), considers how identity differences inform struggles for equality, separatism and domination, and focuses on specific cases in which identity politics are at the heart of conflicts within heterogeneous societies.

Primary distribution course.

Not offered 1998-99. Hajjar.

4. Symbols and Society.

This course examines the ways in which we orient ourselves in a world of constant and contradictory symbols. National symbols, ideological symbols, status symbols and others will be analyzed with the approaches of sociologists, semioticians and anthropologists.

Primary distribution course.

Spring semester. Wagner-Pacifici.

5. Freshman Seminar: Introduction to Contemporary Social Thought.

A general introduction to major theoretical developments in the study of social life since the 19th century. Selected readings will be drawn from the work of such modern social theorists as Marx, Weber, Durkheim, Freud, and Simmel. Readings from contemporary authors such as Geertz, Goffman, Giddens, Lukes, and Rieff will also be included. These developments will be studied against the background of the socio-philosophical climate of the 19th century. Limited enrollment.

Primary distribution course.

Not offered 1998-99. Muñoz.

6. Cultural Borderlands.

This course focuses on the anthropology and sociology of gender, ethnic, and class relations in the United States. The course emphasizes current discussions of inequality and multiculturalism as well as case studies, including Chicano feminism, working-class sexuality,

gendered "backtalking." The course is designed to introduce the student to the basic concepts of both anthropology and cultural studies for understanding cultural "borderlands" in the United States.

Primary distribution course.

Not offered 1998-99. Diaz-Barriga.

7. Gender, Power, and Identity.

An exploration of the social and political implications of gender, drawing on cross-cultural and historical materials. Primary emphasis will be on developments in contemporary America. This course may be counted toward a concentration in Women's Studies.

Primary distribution course.

Not offered 1998-99. Charlton.

8. Psychological Anthropology.

Sometimes called culture and personality, this field explores the relationship between the individual and his or her culture. The course treats the following issues: a) the psychological, or symbolic, capacities presupposed by culture; b) socialization, or the transmission of culture from generation to generation; c) the psychological functions of culture. Case materials will be principally, but not exclusively, non-Western, and the cross-cultural study of child rearing will receive particular emphasis.

Primary distribution course.

Not offered 1998-99. Piker.

9. Conflict and Change in Israeli-Palestinian Relations.

This course offers wide-ranging but introductory coverage of a variety of issues related to Israeli-Palestinian relations. Using sociological theories of identity formation, nationalism, stratification, and culture production, we will consider the rise and institutionalization of the Zionist and Palestinian national movements, changing identities among Jews (Ashkenazim/Mizrachim, religious/secular, native-born/immigrant) and Palestinian Arabs (citizens, residents of the territories, refugees), and socio-political relations in Israel, the West Bank and Gaza. This class draws heavily upon readings to present a variety of views and issues, helping us to understand and discuss competing interests of "two people" in this "one land."

Spring semester. Hajjar.

10. Human Evolution.

This course surveys both the fossil record of human evolution and the archaeological, primatological and ethnographic evidence which has contributed to its interpretation. It evaluates the interpretive frameworks in which the data have historically been placed and assesses how these schemes have been influenced by ideological and scientific biases. The course assumes no prior knowledge of paleoanthropology, but integrates information and perspectives from anatomy, primatology, evolutionary biology and the geosciences.

Primary distribution course.

Fall semester. Speirs.

11. Intro to Race & Ethnicity in the U.S.

This course uses classic ethnographies, current race theory, and journalistic accounts to examine the experiences of selected ethnic groups in the U.S. and to investigate theories of racism, the meaning of race and ethnicity in the twentieth century, and contemporary racialized public debates over affirmative action, welfare, and English-Only policies.

This course may be counted toward a concentration in Black Studies.

Primary distribution course.

Spring semester. Willie.

12. Introduction to Latinos in the U.S.

The course is an introduction to anthropological, sociological, and literary writing on Mexican-American culture. The course focuses on ethnic identity, covering such topics as border ballads and folklore, inner-city life, and Chicana/Riquenja feminism. Authors studied in the course include Cisneros, Garza, Limon, Moraga, Paredes, Rodriguez and Rosaldo. This course may be counted toward a concentration in Latin American Studies.

Not offered 1998-99. Diaz-Barriga.

14. The Social Development of Sport.

The course is designed as an introduction to the sub-field of sport sociology. The primary focus of the course will rest on the developmental history of the institution of western sport and the principal analytical frameworks constructed to explain its origins. While the historical and theoretical material is centered

on European developments, contemporary issues and debates on the relationship of gender, race, and ethnicity to sport will concentrate on American society. Readings will be drawn from the work of sociologists and historians working directly in sport studies.

Not offered 1998-99. Mullan.

17. Cross Cultural Learning.

This course is intended for students planning to do foreign study during the spring semester, 1999. It seeks to enable students, while studying abroad, to understand how their host cultures work at the most local, human level, i.e., in the context of routine, everyday social encounters and activities and endeavors, as experienced by natives. Toward this end, the course will include field work, use of films as cultural documents, and destination country-specific projects. Readings will include the works of Edward T. Hall, Irving Goffman, James Spradley, Robert Emerson, and J. and L. Lofland.

This course is open equally to students from Bryn Mawr, Haverford, Penn, and Swarthmore, and will hbe IP status.

Fall semester. Piker and Mancini.

21. Research Design.

Introduction to the process of research on human social life: creation of research questions, strategies for obtaining evidence, techniques of evaluating hypotheses, and generating theory. The roles of theory, ethical issues, and cultural and historical context in the research enterprise will be addressed. Students will get direct hands-on experience with design, data-gathering, and analysis, and will have professional researchers visit the class.

Spring semester. Charlton.

22. Field Methods.

Techniques of primary data collection and analysis used in field research, with particular attention to participant observation and interviewing. We'll read, in addition to the how-to's, some of the classic ethnographies, think about how theory connects with method, and get practical experience doing field research directly.

Not offered 1998-99. Charlton.

24. Discourse Analysis.

We are what we speak—or largely so. This is the premise of “Discourse Analysis.” This course will concentrate on language in a variety of social contexts: conversations, media reports, legal settings, etc. We will analyze these speech and writing interventions via the tools of socio-linguistics, ethnomethodology, critical legal studies, and discourse analysis. The essential issue of the course can be boiled down to the question: who gets to say what to whom? (Cross-listed as Ling 24.) This course may be counted toward a concentration in Interpretation Theory.
Fall semester. Wagner-Pacifici.

27. Statistical Methods.

(See Statistics 2 for description.)

28. Statistics.

(See Statistics 2c entry for description.)

31. Latin American Society and Culture.

An introduction to the relationship between culture and society in Latin America. Recent and historical works in social research, literature, philosophy and theology will be examined. This course may be counted toward a concentration in Latin American Studies.
Not offered 1998-99. Muñoz.

32. Latin American Urbanization.

This course is designed as an introduction to problems and issues related to Latin America urbanization. It provides an overview of the processes behind the urbanization of Latin America and explores housing policy options. Members of the class will be introduced to concepts such as dependency, underdevelopment, the informal sector, marginality, the culture of poverty, self-construction, and self-help. The role of the informal sector in urban development, housing, and the dependent economy is a particular focus. This course may be counted toward a concentration in Latin American Studies.
Not offered 1998-99. Diaz-Barriga.

33. Indigenous Resistance and Revolt in Latin America.

The course explores ethnic conflict and revolution in Latin America, focusing on Guatemala, Mexico, Peru, and Bolivia. Readings for the course include ethnogra-

phies on rural and urban culture as well as more general works on anthropological theory. This course may be counted toward a concentration in Latin American Studies.
Not offered 1998-99. Diaz-Barriga.

34. Ecology, Peace, and Development in El Salvador.

There is little disagreement that prolonged and pronounced social injustice was the fundamental factor that led to the war in El Salvador (1980-1992). Now, under U.N. auspices, an agreement has been signed that not only has put an end to the fighting and set the terms for disarmament, but also has laid out an agenda for reconstruction, economic development, and the consolidation of democracy. In this course, we will examine the various models, policies, and practices of development that are being proposed by political parties, international institutions (including NGOs), and other civic groups in El Salvador. This course may be counted toward a concentration in Public Policy.
Not offered 1998-99. Diaz-Barriga.

35. Social Movements in Latin America.

Over the last forty years a number of Social Movements have emerged in Latin America, including Urban, Womens'; Indigenous, and Ecological. These movements have arisen, in some cases, as a result of the emergence of new social and political perspectives, such as liberation Theology. In other cases, they have formed as reactions to inequality and crises in development, such as massive urbanization and the impact of neoliberal economic policies. This class explores the range of social movements by focusing on their attempts to articulate new visions of society and culture. The aim of the class is to understand the heterogeneity of social movements in Latin America and understand how Latin Americans have conceptualized their meaning and impact. This course may be counted toward a concentration in Latin American Studies.

Spring semester. Diaz-Barriga.

37. Spanish American Society Through Its Novel.

This course will explore the relationship between society and the novel in Spanish America. Selected works by Carlos Fuentes,

Mario Vargas Llosa, Gabriel García Márquez, Isabel Allende, Luisa Valenzuela, Elena Paniatowska, and others.

This course may be counted toward a concentration in Latin American Studies. (Cross-listed as 60SA in Modern Languages.)

Not offered 1998-99. Hassett and Muñoz.

39. Visual Anthropology.

Visual Anthropology looks at visual communication both as a tool for academic work and the object of anthropological study. In this course, we look at the processes and politics of representation focusing on the use of film and photography both "within" cultures and by anthropologists/sociologists to convey the complexities of cultural practices. Among the issues covered in the class include the relationship of documentary realism to ethnographic film, the emergence of indigenous media, and debate over "postmodern" forms of representation. (Please note that unlike S and A 111 this class does not have a production component.)

Not offered 1998-99. Diaz-Barriga.

40. Gender Politics in the Third World.

This course examines the debates in feminist thought, including the growing attention to the relationship between gender and other forms of oppression; the cultural constructions of gender differences and their political significance in various societies in Asia, the Middle East and Africa; the way gender has been used in national movements for independence and as symbols of "authenticity"; and finally, the way gender is informing studies of international relations, economic development and state violence. This course may be counted toward concentrations in Peace and Conflict Studies and Women's Studies.

Fall semester. Hajjar.

41. Comparative Studies of China and Japan.

Comparative studies of China and Japan focusing on the family and social organization. Social reproduction and social transformation in rural and urban settings. Ideological and other aspects of tradition and modernity. Domestic space and its effects on sociability.

Fall semester. Gillette.

42. Cities and Ghettos in Europe: Comparative approaches to ethnic relations in Europe and America.

This course will adopt an inter-disciplinary approach bringing together disciplines ranging from sociology and political science to anthropology and cultural studies, and will emphasize the particular cases of France, the U.S. and Great Britain.

(Cross-listed with French 80F and LIT 80F)

Fall semester 1998. Azouz Begag (Cornell Visiting Professor).

43. Twentieth Century Black Political Thought.

Engaging the work of a handful of this century's most noted Black authors with the understanding that literature transcends the written word, we will examine how Black scholars, politicians, lawyers, ministers, hymn writers, and playwrights help us to examine how African Americans have wrestled with the existence of self, understood community and conceived of citizenship as well as what their ideas reveal about the dominant culture.

Prerequisite: one course in Soc/Anthro, Black Studies, or Philosophy.

Spring semester. Willie.

44. The Harem Fantasy in the Global Market: Women's Civic Empowerment in Morocco.

This course combines theory and empirical exploration. We begin focusing on the Harem as a binary code where men's and women's interests are perceived as conflictual. The Harem is a frontier (*hudud* in Arabic)—a line (real or imaginary)—which splits space into two distinct spheres (public/male and private/female), thereby ensuring the gender balance. However, when we move into more empirical inquiries about social relations in Morocco, we see that collaboration between the sexes is the rule. Non-governmental organizations (NGOs) are new spaces which offer men and women new opportunities to dance around the *hudud*, the line which is supposed to block them from contact. A striking feature of the booming civic society in Morocco is feminist men, who see their interests as linked to women's empowerment. By learning about the activities of a dozen NGOs in two cities, Fez and Essaouira, students will be moving back

and forth between the theoretical part, which tries to unravel the enduring spell of the harem in today's modern global market, and the empirical part which focuses on how women and men are changing their power relations by innovating and cooperating. The assignments for this course will include student research presentations and oral projects; as well as two collective/class final projects: developing a website for one of the Moroccan NGOs, and preparing grant proposals on behalf of this NGO. Thus, this class affords students an opportunity to develop an expertise on a particular civic initiative, and to act as "advocates" on behalf of that initiative.

Spring semester. Fatema Mernissi (Cornell Visiting Professor).

46. Soviet Cinema.

The early years of the Soviet state produced some of the world's finest filmmakers, revolutionizing cinematic form through new visions of the political in the aesthetic. This course organizes a critical look at the modernist patriotic statements forged by early Soviet directors, with an emphasis on the work of Sergei Eisenstein. A background in Soviet history or permission of the instructor is required.

Not offered 1998-99. Grant.

47. Soviet Culture.

The building of the Soviet state was a vast undertaking which drew on high modernist visions of cultural identity. This course examines Soviet nationality and cultural policies through the lens of anthropology and literature, with a particular view to the debates regnant in the nineteenth century and now again in a post-Soviet setting over whether Russia's soul belongs to Europe or Asia.

Not offered 1998-99. Grant.

50. The Constitution of Knowledge In Modern Society.

This course takes classic sociology of knowledge texts as a starting place for an interrogation and discussion of how knowledge is constructed in this culture. Additional texts will be drawn from Women's Studies, Black Studies, and Media Studies as we examine the powerful ways that knowledge can be and is differently constructed within our own culture as well as the ways that some kinds of knowledge seem to be categorically intractable across

time and space. Prerequisite: A course in theory, sociology/anthropology, literature, or philosophy.

Fall semester. Willie.

51. Classical Theory.

Through the works of Marx, Weber, Durkheim, Simmel, DuBois and Freud, the recurrent and foundational themes of late 19th and early 20th century social theory will be examined: capitalism, class conflict and solidarity, alienation and loneliness, social disorganization and community, secularization and new forms of religiosity.

Not offered 1998-99. Willie.

52. Mapping the Modern.

The course seeks to explore some of the salient issues, achievements, and problems that serve to map Western modernity. Beginning with "prophetic voices" from the mid-19th century, we then concentrate upon "urban fables" of early 20th century high modernism, concluding briefly with late 20th century "postmodern lenses." Texts will be chosen from among the following writers: Marx, Baudelaire, Nietzsche, and Dostoevsky; Rilke, Kafka, Freud, Joyce, and Woolf; Weber, Simmel, Adorno, Benjamin, and Lukacs; Bakhtin, Arendt, Canetti, and de Certeau; Calvino and Borges; Berman and Harvey. The central topics under study are the phenomena of the modern subject and the modern city, as expressed in literature, analyzed in sociology and critical theory, and represented in a range of cultural practices.

Not offered 1998-99. Philip Weinstein and Robin

Wagner-Pacifi. Triple-listed in English, Sociology, and Interpretation Theory.

53. Topics in Social Theory.

This course deals with Kant's and Hegel's social philosophy insofar as it influenced the development of modern social theory. Works by Marx, Weber, Durkheim, Freud, and critical theorists, neo-conservatives, and post-modernists will also be discussed.

Not offered 1998-99. Muñoz.

55. Power, Authority, and Conflict.

This course analyzes the way in which power emerges, circulates, is augmented and resisted in diverse political contexts. Historical and contemporary cases are interrogated with the

theoretical frameworks of Marx, Weber, Gramsci, Arendt, Parsons, and Foucault. Issues include the question of state autonomy, political legitimacy, and the interpenetration of the personal and the political. This course may be counted toward concentrations in Interpretation Theory and Peace and Conflict Studies.

Not offered 1998-99. Wagner-Pacifici.

57. History of the Culture Concept.

We traffic in presumptions of culture and society every day, relying on elastic ideas of what constitutes a people, culture or nation, and yet few of us have the chance to step back and interrogate the intellectual genealogies that inform these central concepts. This course examines a handful of paradigmatic moments in modernist culture theory — evolutionism, functionalism, cultural relativism, structuralism, cultural materialism and symbolic studies — in order to study a repertoire of responses to the issue of representation in anthropology and cultural studies more broadly. This course may be counted toward a concentration in Franco-phone Studies.

Spring semester. Grant.

58. Cultural Representations.

The course looks at models used by anthropologist/sociologists to analyze culture. Readings for the course will focus on symbolic analysis, practice and meaning, experimental ethnography, structuralism, and postmodernism. The majority of readings center on current debate in theories about culture. This course may be counted toward a concentration in Interpretation Theory.

Spring semester. Diaz-Barriga.

61. An Introduction to Archaeology.

(See Classics 52 for description.)

64. Seeds of Change: The Environmental Consequences of the Agricultural Revolution in Prehistory.

This course investigates the impact of the Agricultural Revolution in prehistory on physical and social environments. We examine the coevolutionary processes which transformed mobile foraging groups into sedentary farmers and herders following the end of the last Ice Age and focus on the ecological and paleodemographic impacts of increased reliance upon

domesticated plants and animals for subsistence. We will examine myths about prehistoric edens and indigenous populations as "Ecologically Noble Savages" and will attempt to use the archaeological record as a guide for selecting appropriate options for future agricultural development. This course may be counted toward concentrations in Environmental Studies and Public Policy.

Spring semester. Speirs.

65. Primate Behavior.

(See Bio 31 for description.)

66. The Hominid Heritage: Special Topics in Paleanthropology.

The evolution of four presumably adaptive hominid behavioral repertoires and their anatomical substrates will be the focus of this course. Emphasizing the development of analytical competence in evaluating paleanthropological data, as well as critical reading of the primary literature, we will examine changes in dietary, locomotor, symbolic and reproductive behavior over the course of human evolution and consider the implications of these developments for understanding and coping with several contemporary health and biocultural issues.

Prerequisite: SA10 or equivalent or instructor's permission.

Not offered 1998-99. Speirs.

67. Human Biodiversity.

An introduction to the evolving concept of "race" in biological anthropology and its legacy for the contemporary exploration of modern human variation as a product of population history, evolution and adaptation. In addition to the examination of the dynamic interaction of genotype and phenotype - whether physiologically or socially constituted - from multiple historical and scientific perspectives, we will scrutinize the use and abuse of racial perspectives in the biomedical sciences and current efforts to catalogue the human genome.

Spring semester. Speirs.

68. Urban Education.

(Cross-listed with Education 68.)

69. School and Society.

(Cross-listed with Education 63.)

Sociology and Anthropology

70. Religion as a Cultural Institution.

The focus is primarily cross-cultural, and religion case materials will be drawn from both pre-literate and civilized traditions, including the modern West. The following topics will be emphasized: religious symbolism; religious evolution; religion as a force for both social stability and social change; psychological aspects of religious belief; and religious change in modern America. May be taken without prerequisites with permission of instructor.

(Cross-listed as Religion 30.)

Spring semester. Piker.

72. Shamanism.

From New Age sweat lodges to Soviet Siberia, shamanic spirit mediums have been construed as everything from healers to magistrates to visionaries to political subversives. This course explores anthropological literature on shamanism in the United States, Russia, and South America in order to ask ourselves how we constitute and appropriate the exotic.

Fall semester. Grant.

77. Art and Society.

The course examines the relationship between art and society from a sociological perspective. This semester we shall use hermeneutics as a sociological method for the interpretation of literature. Selected works by Borges, Mann, Dostoevski, Nietzsche, and Plato will be examined. This course may be counted toward a concentration in Interpretation Theory.

Fall semester. Muñoz.

79. Language, Culture and Society.

(See Linguistics 25 for description.)

Please see Linguistics entry for description.)

82. Law and Society: The Discourse of Rights in the U.S.

This course explores the changing discourse of legal and political rights in the US throughout the 20th century. We focus on the socio-political struggles for rights by African-Americans, women, and homosexuals within the legal domain. We will analyze theories of law and social identity, the contours of political debates, the legal records on issues relating to minority rights and the effects of legal developments on contemporary society.

Fall semester. Hajjar.

84. Social Inequality.

This course analyzes conflicting theoretical perspectives on the origins and meaning of social inequality. Empirical studies of both a historical and cross-cultural nature will be examined for the ways in which they engage alternative readings of such issues as the nature and representations of work, property, body, and mind in revealing and reproducing social inequalities. The approach is phenomenological: How are inequalities made social and how are they disrupted?

Fall semester. Wagner-Pacifici.

86. Culture, Illness, and Health.

This course will treat, 1) evolved human adaptations, with reference to health and illness; 2) cultural constructions of and responses to illness, and 3) the intersection of non-Western and Western medical systems. Cross-cultural materials will be featured. This course may be counted toward a concentration in Public Policy.

Spring semester. Piker.

90. Research Internship.

Interns receive research experience through placements in professional research settings. Juniors and seniors with a B average willing to commit 6 to 12 hours of work on their project per week are eligible. Credit is normally awarded on a CR/NC basis, for a half to one credit. Since available projects change, interested students should see the instructor before registration. Interested students are also encouraged to take SA 21.

Fall and spring semesters. Charlton.

93. Directed Reading.

Individual or group study in fields of special interest to the students not dealt with in the regular course offerings. Consent of the department chair and of the instructor is required. For half or one credit.

Fall and spring semesters. Members of the Department.

96-97. Thesis. Theses will be required of all majors.

Seniors will normally take two consecutive semesters of thesis tutorial. Students are urged to discuss their thesis proposals with faculty during the spring semester of their junior year, especially if they are interested in the possibil-

ity of field work.

Fall and spring semesters. Members of the Department.

The following courses, with attachment, can be taken in preparation for Honors Examinations: S&A 33 & 35, 55, 57, 70, 84, 86.

SEMINARS

101. Critical Modern Social Theory.

The development of critical theory from Kant to Habermas. Works by Hegel, Marx, Nietzsche, Lukacs, Adorno, Benjamin, Horkheimer and Foucault will be examined.

Prerequisites: advanced work in Sociology/Anthropology, Philosophy, or Political Science; or permission of the instructor. Students are advised to take S&A 105 Modern Social Theory as preparation for this seminar. This course may be counted toward a concentration in Interpretation Theory.

Spring semester. Muñoz.

102. History and Myth.

The well-worn canons of historiography and anthropology have undergone watershed changes in the last twenty years, repositioning the constitution of knowledge, power and the self in new analytical genres. This course takes a look at some wide-ranging developments in recent historiographic theory within anthropology, drawing special attention to ways in which mythic narratives inform the power of persons and states, blurring the boundaries between history and myth. This course may be counted toward a concentration in Francophone Studies.

Not offered 1998-99. Grant.

104. Culture and Creativity.

Evolutionary perspective on the question: how do we creatively make use of cultural resources to construct ourselves and our life ways? Vast diversity of human lifeways argues that such creative construction is a—perhaps the—hallmark of human adaptation. Specific topics: human evolution; foraging band as the basic human pattern; speech; human intelligence; human emotion; gender; biography; history. Readings include ethnographies, novels, native narratives.

Fall semester. Piker.

105. Modern Social Theory.

An analysis of selected works by the founders of modern social theory and contemporary social theorists. Works by Marx, Weber, Durkheim, and Freud will be discussed. This course may be counted toward a concentration in Interpretation Theory. This seminar is strongly recommended for those students planning to take S & A 101 Critical Modern Social Theory.

Fall semester. Muñoz.

107. Religion as a Cultural Institution.

The following specific topics will be treated: religious evolution; religion as a force for both social stability and social change; the psychological bases for religious belief. Major theories to be considered include those of Max Weber, Emile Durkheim, and Sigmund Freud. A cross-cultural perspective will be emphasized, and attention will be paid to religious change in modern America.

Not offered 1998-99. Piker.

108. Social Inequality.

This seminar analyzes conflicting theoretical perspectives on the origins and meaning of social inequality. Empirical studies of both a historical and cross-cultural nature will be examined for the ways in which they engage alternative readings of such issues as the nature and representations of work, property, body, and mind in revealing and reproducing social inequalities. The approach is partly phenomenological: how are inequalities made social and how are they disrupted?

Not offered 1998-99. Wagner-Pacifici.

110. Work and the Workplace.

This seminar examines the meaning of life as it relates to work, on both micro and macro levels, using the classic theoretical statements as well as case studies.

Not offered 1998-99. Charlton.

111. Visual Ethnography and Documentary Film: Theory and Production.

This course examines the use of film and video by sociologist and anthropologist to convey and communicate aspects of culture that are visible— from rituals, performance, and dance

to disputes and violence. The course will look at the history of visual ethnography and explore the major issues within the field, including the relationship between ethnographers and filmmakers, and the appropriateness of the conventions of documentary film, paying special attention to the influences of politics, economics, and technical advances. The course will include readings on visual ethnography and documentary film techniques. The main goals of the seminar are for students to understand the links between anthropological and sociological theory and the production of ethnographic and documentary film and to have the production skills necessary for directing their own work.

Fall semester. Diaz-Barriga and Jackson.

114. Political Sociology.

This seminar analyzes the ways in which power emerges, circulates, is augmented, and resisted in diverse political contexts. Readings include Marx, Weber, Gramsci, Arendt, Parsons, and Foucault. This course may be counted toward a concentration in Interpretation Theory.

Not offered 1998-99. Wagner-Pacifi.

115. Freud and Modern Social Theory.

The seminar divides into two parts. The first part is devoted to a close reading of selected items from the Freudian canon. The second part will examine Freud's contribution to current social and cultural analysis. Besides works by Freud, works by Mitchell, Rieff, Habermas, and Foucault will be examined.

Prerequisites: advance work in Sociology/Anthropology, Philosophy, or Political Science; or permission of the instructor. This course may be counted toward a concentration in Interpretation Theory.

Not offered 1998-99. Muñoz.

116. Human Rights in Theory and Practice.

This course deals with the emergence and institutionalization of international human rights in the 20th century. We start with political theory (rights of man, sovereignty, international law) and developments concerning political and civil rights, social and economic rights, and indigenous "people's rights." We then deal with various problems, including debates over universalism v. cultural relativism, enforcement in the state-centered

international order, and states' co-optation of human rights discourse to serve political ends. Finally, we focus on several human rights issues including torture, international humanitarian intervention and genocide.

Spring semester. Hajjar.

117. Liberation Theology and Social Movement in Latin America.

This course looks at the concepts, practices, and history of liberation theology and new social movements in Latin America, focusing on the ways Christian Base Communities (CEBs) and social movements (including human rights, women's, urban and ecological) have articulated demands and sought to empower local communities. The relations between popular religion in Latin America and liberation theology will also be explored.

Not offered 1998-99. Diaz-Barriga, Lacey.

120. Gender and Culture.

A comparative exploration of the social construction of gender utilizing diverse theoretical and empirical perspectives. This course may be counted toward a concentration in Women's Studies.

Not offered 1998-99. Charlton.

180. Thesis.

Candidates for Honors will usually write theses during the senior year. Students are urged to have their thesis proposals approved as early as possible during the junior year.

Fall and spring semesters. Members of the Department.

199. Senior Honors Study.

Students in the Honors Program will work toward writing an intellectual autobiography in preparation for the honors examinations.

Spring semester. Wagner-Pacifi.

Women's Studies

Coordinator: **JEANNE MARECEK** (Psychology)
Committee: **Amy Bug** (Physics)
Marion Faber (Modern Languages and Literatures) (Fall)
Lisa Hajjar (Sociology and Anthropology)
Nora Johnson (English Literature)
Tamsin Lorraine (Philosophy)
Sunka Simon (Modern Languages and Literatures) (Spring)

The program in Women's Studies provides students with the opportunity to learn the contributions of women to society, science, and the arts; to study gender and gender roles in a variety of social and historical contexts; to relate issues of gender to those of race, class, and sexual preference; and to explore new methods and theories arising from interdisciplinary study. Women's Studies encourages students to examine critically the representations of women in religion, in the arts and literature, in social and political theory, and in the sciences.

Students in any major, whether in Course or in the Honors Program, may add a concentration in Women's Studies to their program by fulfilling the requirements stated below. Students in the Honors Program may minor in Women's Studies or design a Focus or special major in consultation with the Women's Studies Coordinator, following the guidelines outlined below. All students intending to pursue Women's Studies should submit their proposed program to the Coordinator when they submit their sophomore papers. All program proposals must be approved by the Women's Studies Committee.

The Jean Brosius Walton '35 Fund and the *Wendy S. Cheek Memorial Fund* contribute to the support of activities sponsored by the Women's Studies Committee.

CONCENTRATION

Each concentration must include a minimum of five credits in Women's Studies. One course must be the senior seminar. Because Women's Studies is an interdisciplinary program, the courses (or seminars) in each concentration must be selected from at least two different Divisions. Students may elect, with the

approval of the coordinator, to write a one-credit thesis or pursue an independent study as a substitute for regular course work. Students may also, with the approval of the Coordinator, include in their programs courses on women and gender offered at Bryn Mawr, Haverford, the University of Pennsylvania, and abroad. These courses can be accepted toward the concentration after they have received credit through appropriate departments. If the institution in which the course was offered has a Women's Studies Program, the course in question must be cross-listed in that program to be accepted as a Women's Studies course at Swarthmore. We encourage those students interested in receiving credit for applied or practical work, such as service learning projects, to consult the regulations on p. 64 of the 1998-99 College Bulletin. Students will normally take the senior seminar in the spring semester of the senior year.

It is recommended that potential concentrators take Women's Studies 1, Introduction to Women's Studies, in their first or second year.

HONORS PROGRAM

Students in the Honors program may minor in Women's Studies by completing all requirements for the Concentration in Women's Studies, completing ½ credit of Seniors Honors Study and preparing for and taking one external exam. The preparation consists of the Women's Studies Senior Seminar, Women's Studies 91, plus the one-credit Honors Attachment, 91A. The Senior Honors Study can be completed either semester of the senior year and will consist of a literature review essay. The essay will identify and discuss the contribution of the several (no more than six) works in Women's Studies that have made the great-

Women's Studies

est impact on the student's work in the concentration. The review essay will become part of the student's portfolio and be sent to the external examiners.

Students in the Honors program may choose to do a Focus in Women's Studies. Each Focus must include 4 honors preparations. The Focus must include 1) two Honors preparations within the student's departmental major, and 2) two Honors preparations outside of the student's departmental major, all four of which have been approved by the Women's Studies Committee as Women's Studies Honors preparations. In addition, students doing a focus in Women's Studies must participate in the senior seminar and complete one credit of Senior Honors Study in Women's Studies.

Courses on women and gender regularly offered for the concentration include:

Biology 93. Directed Reading in Feminist Critiques of Biology.

Classics 34. Women in Classical Literature.

Dance 36. Dance and Gender.

Economics 43. Public Policy and the American Family.

Economics 73. Women and Minorities in the Economy.

Education 61. Gender and Education.

English 5M. Ways of Seeing.

English 5N. Illicit Desires in Literature.

English 5R. Fictions of Identity.

English 23. Renaissance Sexualities.

English 24. Inscriptions of the Feminine in 16th- and 17th-Century England.

English 34. Restaging Romanticism.

English 36. Colloquium: The Age of Austen.

English 48. Contemporary Women's Poetry.

English 67. (Asian) Ethnicity and (Hetero) Sexual Normativity.

English 71J. Cherchez la femme: The "Mystery" of Women in the Mystery Genre.

English 71K. Lesbian Novels Since WWII.

English 82/Psychology 52.

Representations of Women's Identity.

English 83. Feminist Theory.

English 84. Lesbian Representation.

English 89. Women and Popular Culture: Fiction, Film, and Television.

English 90. Queer Media.

English 91. Feminist Film and Media Studies.

English 112. Women and Literature.

History 10C. Sex and Gender in Western Traditions.

History 10G. Women, Family and the State in China.

History 10I. African American Women.

History 29. Sexuality and Society in Modern Europe.

History 52. The History of Manhood in America.

History 53. African American Women's History.

History 54. Women, Society, and Politics.

History 89. Gender, Sexuality and Colonialism.

Literature 51G. Gender and Race in German Cinema.

Literature 61SA. Women's Testimonial Literature of Latin America.

Literature 77G. Literature of Decadence.

Literature 79R. Russian Women Writers.

Modern Languages: French 61. Odd Couplings: Writings and Readings Across Gender Lines.

Modern Languages: French 76. Femmes écrivains.

Modern Languages: German 77. Literature of Decadence.

Modern Languages: German 88. Frauen und Film.

Modern Languages: German 108. Wien und Berlin.

Modern Languages: Russian 79R. Russian Women Writers.

Modern Languages: Spanish 66. La escritora española en los siglos XIX y XX.

Music 10. Women In Music: Composers.

Music 35. Women Choreographers and Composers.

Peace Studies 40. Peace Movement in the United States: Women and Peace.

Philosophy 45. Philosophical Approaches to the Question of Woman.

Philosophy 145. Feminist Theory Seminar.

Physics 29. Seminar on Gender and (Physical) Science.

Political Science 13. Feminist Political Theory.

Political Science 31. Difference, Dominance, and the Struggle for Equality.

Political Science 32. Gender, Politics and Policy in America.

Psychology 44. Psychology and Women.

Psychology 52/English 82. Representations of Women's Identity.

Psychology 60. Gender and Mental Health.

Religion 7. Women and Religion.

Religion 25. Black Women and Religion in the United States.

Sociology/Anthropology 7. Gender, Power, and Identity.

Sociology/Anthropology 40. Gender Politics in the Third World.

Sociology/Anthropology 41. Comparative Studies of China and Japan.

Sociology/Anthropology 120. Gender and Culture.

Women's Studies 1. Introduction to Women's Studies. Body Talk: Engendering the Female Body from Modernity to Postmodernity.

This introductory course uses the analytic tools arising from the study of gender, race, and class to examine the acquisition, organization, and dissemination of knowledge. It is intended for students considering a concentration in Women's Studies and pondering the role of gender construction in their major disciplines. Each year the course will be designed around one overarching topic crucial to women's lives, the representation of women's experiences, and theory and research in the field. This year's course will be an interdisciplinary study of the body. Via guest lectures, class discussions and student-run reading/discussion groups, we will trace the appearances, development, and signification of "body-talk" from the late eighteenth century to today—i.e., biology, psychology, anthropology, textuality, representational politics of the female body, of woman as figure, and of individual historical women in Western and Non-Western societies.

Spring 1999. Simon.

Women's Studies 30. Women and Technology.

The course will explore the relationships between women and technology in western industrial society. Three aspects to be considered are the effect of technology on women, the role of female technologists in shaping that technology, and the effect on technology of average women acting as consumers, voters, and citizens. Students will research an area of personal interest and make a presentation to the class. Possible topics include reproductive technologies, the internet, feminist utopias in science fiction, and others. Expected workload is two long papers and several short ones, with no midterm, final, or labs.

Women's Studies 30 is a 1-credit lecture course. It does not fulfill a college-wide distribution requirement. For the concentration in Women's Studies, however, it can be applied to the breadth requirement.

Fall 1998. Everbach.

Women's Studies

Women's Studies 91. Seminar in Women's Studies.

An advanced seminar emphasizing theoretical and methodological questions that arise when women are placed at the center of study, and in which students engage in projects based upon their prior work with gender in the various disciplines. This class is required of, and normally limited to, Women's Studies concentrators special majors and students completing a Focus for Honors. It must be taken in the senior year and cannot be used to fulfill distribution requirements.

Women's Studies 91A. Honors Attachment to Seminar in Women's Studies.

A one-credit preparation required of students who complete an Honors minor in Women's Studies.

Women's Studies 92. Thesis.

A one-credit research project, culminating in the preparation of a written document, for students majoring in Course.

Women's Studies 192. Thesis.

A two-credit research project, culminating in the preparation of a written document, for students completing a Focus or special major in Honors.

Women's Studies 199. Senior Honors Study.

VI

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Kim D. Arrow, B.S., Temple University; M.F.A., New York University, Assistant Professor of Dance (part-time). Swarthmore College.

Cynthia Baker, B.A., Wesleyan University; M.T.S., Harvard University; Ph.D., Duke University, Visiting Assistant Professor of Religion. Swarthmore College.

David Barton, B.A., Stanford University; Ph.D., University of California, Berkeley, Visiting Assistant Professor of Philosophy. Swarthmore College.

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Syd Carpenter, B.F.A. and M.F.A., Tyler School of Art, Assistant Professor of Studio Arts. Swarthmore College.

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Lisa Cohen, B.A., Brown University; M.Phil. and Ph.D., Yale University, Visiting Assistant Professor of English Literature. Swarthmore College.

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Allison Dorsey, B.A., University of San Francisco; M.A. and Ph.D., University of California, Irvine, Assistant Professor of History. Swarthmore College.

Bruce A. Dorsey, B.A., Biola University; A.M. and Ph.D., Brown University, Assistant Professor of History. Swarthmore College.

Todd A. Drumm,³ B.S., Westminster College; Ph.D., University of Maryland, College Park, Assistant Professor of Mathematics. Swarthmore College.

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² Absent on leave, spring semester, 1999.

³ Absent on leave, 1998-99.

⁸ Campus coordinator, Swarthmore Program in Grenoble, fall semester, 1998.

¹¹ Program Director, Swarthmore Program in Grenoble, spring semester, 1999.

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Raima Evan, B.A., Radcliffe College, Harvard University; M.A. and Ph.D., University of Pennsylvania, Visiting Assistant Professor of English Literature (part-time). 602 Elm Avenue.

Philip J. Everson, B.A., Pomona College; M.A. and Ph.D., Harvard University, Assistant Professor of Statistics. Swarthmore College.

Theodore Fernald, B.A., Ohio State University; Ph.D., University of California at Santa Cruz, Assistant Professor of Linguistics. Swarthmore College.

Maris Gillette, B.A., Harvard University; M.A. and Ph.D., Cornell University, Visiting Assistant Professor of Anthropology. Swarthmore College.

Cheri Goetcheus, B.S. and M.S., Ithaca College, Assistant Professor of Physical Education. Swarthmore College.

Laura Gotkowitz, B.A., Brown University; M.A., University of Chicago, Assistant Professor of History. Swarthmore College.

Bruce Grant, B.A., McGill University; M.A. and Ph.D., Rice University, Assistant Professor of Anthropology. Swarthmore College.

Cheryl P. Good, B.A., University of Michigan; M.A. and Ph.D., University of Wisconsin, Visiting Assistant Professor of Mathematics. Swarthmore College.

Maria Luisa Guardiola,³ Licenciada, University of Barcelona; Ph.D., University of Pennsylvania, Assistant Professor of Spanish. Swarthmore College.

Lisa Hajjar, B.A., Tufts University; M.A., Georgetown University; Ph.D., The American University, Assistant Professor of Sociology. Swarthmore College.

Cynthia Perwin Halpern, B.A., Tulane University; M.A., The London School of Economics; Ph.D., Princeton University, Assistant Professor of Political Science. Swarthmore College.

Christopher M. Herald, B.A. and Ph.D., University of California, Berkeley, Visiting Assistant Professor of Mathematics. Swarthmore College.

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Sally Hess, B.A., Barnard College; M.Phil., Yale University, Assistant Professor of Dance (part-time). Swarthmore College.

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Ahamindra Jain, S.B., Massachusetts Institute of Technology; Ph.D., Harvard University, Visiting Assistant Professor of Chemistry. Swarthmore College.

Eric L.N. Jensen, B.A., Carleton College; M.S., Ph.D., University of Wisconsin, Assistant Professor of Astronomy. Swarthmore College.

¹ Absent on leave, fall semester, 1998.

³ Absent on leave, 1998-99.

⁵ Spring semester, 1999.

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¹ Absent on leave, fall semester, 1998.

³ Absent on leave, 1998-99.

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¹ Absent on leave, fall semester, 1998.

³ Absent on leave, 1998-99.

⁵ Spring semester, 1999.

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4 Fall semester, 1998 (appointment for that semester only).

5 Spring semester, 1999.

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Standing Committees of the Faculty 1998-99

Academic Requirements

GROSS*, Charlton*, Cheever, Durgin, Halpern, Ledbetter, Schwartz*, Warner*

Admissions and Scholarships

OBERDIEK, Aslanian, Carpenter, Gilbert, Gross*, Kuperberg, Mamlet*, Marissen, Maurer, Mendel-Reyes, Renninger, Simeone, Talbot*, 2 students

Council on Educational Policy

KEITH*, Bloom*, Collings, Everbach, Faber, Hassert, Maurer, Smulyan, Whitley '01, Monga '99

Committee on Faculty Procedures

BLOOM*, Jacobs, Keith*, Marecek, Merz, Ross, Saffran, Shimamoto

Computing Services

STEPHENSON, Cavanaugh, J. Downing*, Dufour, Forrester, Francis, M. Jones, Moscatelli, Raff, Seiden, 3 students to be appointed

Cooper

GRAYBILL, M. ELDRIDGE* (co-chairs), Arrow, Cobo, Dorsey, Gilbert, Hajjar, Levinson, Marshall, A. Morrison, Reisman, Smythe*, 2 students to be appointed

Curriculum Committee

KEITH*, DuPlessis, Friedler, Molter, Warner*, Johnson '99, Sajdera '01

Fellowships and Prizes (formerly Fellowships and Prizes, Luce, Watson)

STOTT*, Alston, Brown, Charlton*, B. Dorsey, Kong, Leach, McGarity, Talvacchia, Voet, M. Westphal*, T. White

Foreign Study

PIKER*, Berkowitz, Charlton, Evans*, Freeman, Grant, Paley, Sams, Talbot

Health Science Advisory

SIMEONE*, Charlton, G. Evans, Howard, Purrington, Stout, Weiss

Library

SEIDEN*, J. Downing, Mazza, A. Morrison, O'Connell, Rose, Schall, Stephenson*, P. White

Luce

see Fellowships and Prizes

Advisory Council to Physical Education and Athletics

CASKEY, Devin, Everson, Meeden, Ramirez, 2 students to be appointed

Promotion and Tenure

BLOOM*, Cothren, Keith*, Schneider, Voet, Westphal

Research Ethics

T. WILLIAMS, Bug, Ward

Watson

see Fellowships and Prizes

Women's Concerns

WEINBERG/CHMIELEWSKI (Co-Chairs), C. Evans, Goetchus, Nackenoff, Robinson*, D. Timm-Dinkins*, 2 students to be appointed

Special Appointments

Division Chairs

Humanities, Friedler

Natural Sciences & Engineering, Molter

Social Sciences, DuPlessis

Marshal

Hungerford

Middle States Self-Study Coordinator

Hungerford

Parliamentarian

Frost

Secretary to the Faculty

Turpin

Faculty Representatives to Other Committees

Academic Support

see Advisory Council to the Dean

Advisory Council to the Dean (formerly the Academic Support, Exchange, and Alcohol Policy Committees)

GROSS*, Burke, Camacho de Schmidt, Charlton*, Cobo*, Goundie, Jacobs, Judson, Sams*, 3 Students

*staff ex officio

*Advisory Council to the Vice President for
Facilities and Services*

Everbach, Exon

Ad Hoc Committee on ADA Planning

SCHALL*, Carroll*, Dunn, Evans*,
M. Westphal*

Alcohol Policy

see Advisory Council to the Dean

Animal Use and Care Committee

HIEBERT, Ristine, Schneider, Brenda
Perkins, DVM, Yolanda Alcorta (Counsel,
Bryn Mawr College)

College Budget Committee

ASLANIAN*, Bloom*, Chijioko, Eldridge*,
Grinstead, Gross*, Keith*, Li, Moscatelli, VP
for Alumni, Development, and PR*,
Mamlet*, Schall*, Schwartz*, Smythe,
Valelly, Welsh*, M. Schwartz '01, B. Hanani
'00, I. Iyahan '00, I. Tsay '99

College Judiciary Committee

GROSS*, Bayer-Alt, M. Dean (Reg), J.
Downing (Alt), Durgin-Alt, Goundie
(Observer)*, Hain (Alternate), Hiebert-Reg,
Wallace-Reg, Weinberg-Alt, 2 students to be
appointed

College Planning Committee

BLOOM*, Aslanian*, Dean, DuPlessis*,
M. Eldridge*, Everbach, Friedler*, VP for
Alumni, Development, and PR*, Gross*,
Hungerford* (as needed for Middle States),
Keith*, Mamlet*, Marissen, Molter*, Schall*,
Schwartz*, Stephenson*, Oberdiek, 4 students

Community Services Advisory Board

P. JAMES*, D. Anderson, Cheever, Cole*,
Evans, Francis, Goundie*, Wylie*

Cultural Diversity Task Force

SAMS*/DIAZ-BARRIGA (Co-Chairs), Cobo,
Evans, Schwartz*, Vollmer, students to be
appointed

Equal Opportunity Committee

O'CONNELL, J. Downing, Kalwaic, M.
Eldridge*, N. Johnson, Narkin, Robinson*,
Sams*, Schmidt, Vollmer

Exchange

see Advisory Council to the Dean

Faculty and Staff Benefits

ASLANIAN*, Carroll*, Fernberger*, Hain,
Maio, Osborne, Schwartz*, Wagner-Pacifici,
L. Westphal

Honorary Degrees

BLOOM*/VP FOR ALUMNI, DEVELOP-
MENT, & PR* (co-chairs), Latham, Lorraine,
Pasternack, Sharpe, 3 Board Members to be
designated

Lang Scholarship

GROSS*, D. Anderson, Cole*, Grant,
Jefferson, M. Westphal*

Sager

JUDSON, Ayers*, Blanchard, Cobo, Henry,
Huber*, P. James, N. Johnson, Moskos,
D. Smith, Wedlock, P. White

*Swarthmore Asian-American, Latino, Native
American and African Heritage Concerns
Committee*

CHIREAU, Bradley, R. Jefferson, M.
Robinson, Cobo*, Evans, P. James, Sams*,
2 students to be appointed

Swarthmore Foundation

COLE*, Charlton, Francis, Gotkowitz,
Goundie, Grossman, J. James, P. James*,
Lacey, J. Mullins, L. Talbot, Stott*

Faculty Representatives to Committees of the Board

Board Observers

Blackburn, McNamee

Property

Exon, Everbach

Student Life

Burke, Camacho deSchmidt, Jacobs, Judson

Programs and Concentrations

Asian Studies

GRAYBILL, Berkowitz, S. Hopkins, Li,
Ollapally, T. White, Whitman

*staff ex officio

Faculty

Black Studies

WILLIE, Burke, Carpenter, Chireau,
A. Dorsey, James, Leach, Schmidt, 2 students
to be appointed

Comparative Literature

LESJAK, Berkowitz, Bolton, Bradley, Faber,
Hassett, Moskos, Rose, Weinstein, Werlen

Computer Science

KELEMEN, Grinstead, Maxwell, McNamee,
1 Student

Environmental Studies

EVERBACH, Latham, McGarity, Nackenoff,
Oberdiek, Speirs, Vallery, Wallace, Westphal

Francophone Studies

LANE, Blanchard, DuPlessis, Freeman, Hess,
Grant, Halpern, Hungerford, Lorraine,
Moskos

German Studies

PAVSEK, Faber, Judson, Kurth, Lorraine,
Marissen, Munoz

Interpretation Theory

WAGNER-PACIFICI/WALLACE, Gergen

Latin American Studies

DIAZ-BARRIGA, Camacho de Schmidt,
Friedman, Gotkowitz, Hassett, Munoz

Linguistics

FERNALD, Everbach, Forrester, Kelemen,
Piker, Williamson

Medieval Studies

COTHREN, Bensch, Deutsch Marissen,
Munson, Ross, Turpin, Williamson

Peace and Conflict Studies

LACEY, Bayer, Chmielewski, Frost, Hajjar,
Leach, Ollapally, Ward

Teacher Education

SMULYAN, Dufour, Faber, Hiebert, Maurer,
Piker, Schmidt, Weinberg

Public Policy

HOLLISTER, Caskey, Iversen, Latham,
Mendel-Reyes, Nackenoff, Rubin, Vallery,
Weinberg

Women's Studies

MARECEK, Bug, Hajjar, Lorraine, N.
Johnson, Simon (spring), Faber (fall)

Divisions and Departments

I. DIVISION OF THE HUMANITIES Sharon Friedler, Chair

Art

Randall L. Exon, Chair

Asian Studies (Program)

Maribeth Graybill, Program Coordinator

Classics

William N. Turpin, Chair

English Literature

Charles L. James, Chair

History

Robert E. Weinberg, Chair

Mathematics and Statistics

Janet C. Talvacchia, Chair

Modern Languages and Literatures

Thompson Bradley, Chair

Music and Dance

Ann K. McNamee, Chair

Philosophy

Richard Schuldenfrei, Acting Chair

Psychology

Jeanne Marecek, Department Head

Religion

Mark I. Wallace, Chair

II. DIVISION OF THE NATURAL SCIENCES AND ENGINEERING Lynne A. Molter, Chair

Biology

Kathleen Siwicki, Chair
John B. Jenkins, Associate Chair

Chemistry

Robert S. Paley, Chair

Computer Science (Program)

Charles F. Kelemen, Program Director

Engineering

Faruq M.A. Siddiqui, Chair

Linguistics (Program)

Donna Jo Napoli, Program Director
Theodore Fernald, Acting Program Director

Mathematics and Statistics

Janet C. Talvacchia, Chair

Philosophy

Richard Schuldenfrei, Acting Chair

Physics and Astronomy

Peter J. Collings, Chair

Psychology

Jeanne Marecek, Department Head

III. DIVISION OF THE SOCIAL SCIENCES

Robert S. DuPlessis, Chair

Economics

Mark Kuperberg, Chair

Education (Program)

Lisa Smulyan, Program Director

Engineering

Faruq M.A. Siddiqui, Chair

History

Robert E. Weinberg, Chair

Linguistics (Program)

Donna Jo Napoli, Program Director

Theodore Fernald, Acting Program Director

Mathematics and Statistics

Janet C. Talvacchia, Chair

Philosophy

Richard Schuldenfrei, Acting Chair

Political Science

Carol Nackenoff, Chair

Psychology

Jeanne Marecek, Department Head

Sociology and Anthropology

Braulio Muñoz, Chair

Rose Maio, Administrative Assistant for the Divisions of Humanities, Social Sciences, and Natural Sciences and Engineering

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DEPARTMENT ASSISTANTS AND TECHNICIANS

Art: June V. Cianfrana, A.A.S., Delaware County Community College, Administrative Assistant.

Biology: Maria E. Musika, Administrative Assistant; John Kelly, A.A.S., Community College of Philadelphia; B.A., The Wharton School, University of Pennsylvania, Instrumentation Specialist; Gwen Rivnak, B.S. Denison University; M.E. Widener University, Laboratory Technician; Bill Pinder, B.A. Swarthmore College, Biology Department Greenhouse Manager.

Chemistry: Kay McGinty, B.A., M.A., California State University at Long Beach, Administrative Assistant; James W. Bell, Instrument Coordinator.

Classics: Francesca Giegengack, Administrative Assistant.

Computer Science-Astronomy Research: Jeffrey M. Knerr, B.S., William and Mary College; M.S. and Ph.D., University of North Carolina, Lab/System Administrator.

Economics: Mary Anne Stewart, Administrative Assistant.

Education: Kae Kalwaic, B.S., Shippensburg University; M.Ed., Temple University, Administrative Assistant.

Engineering: Rose Martin, Administrative Assistant; Grant Lee Smith, Mechanician; Charles A. White, Electronics Technician.

English Literature: Carolyn Anderson, Administrative Assistant.

History: Theresa Brown, Administrative Assistant.

Linguistics: Stephanie Strassel, B.A., George Washington University, Administrative Assistant.

Mathematics and Statistics: Joyce A. Glackin, Administrative Assistant.

Modern Languages and Literatures: Eleonore Baginski, B.S., St. Joseph's University, Administrative Coordinator; Michael Jones, B.A., SUNY, Buffalo, Language Resource Center Director.

Music and Dance: Judy Lord, A.A., Wesley College, Administrative Assistant.

Philosophy: Jacqueline Robinson, Administrative Assistant.

Physical Education and Athletics: Marian Fahy, Assistant to the Athletic Director; Sharon J. Green, Administrative Assistant; Ray Scott, David Lester, Equipment/Facilities Managers; Marie Mancini, A.T., C., B.S., West Chester University; Doug Weiss, Sports Medicine Resident.

Physics and Astronomy: Deborah J. Economidis, A.A., Cecil Community College, Administrative Assistant; Steven Palmer, Mechanician; David Radcliffe, B.A., Rutgers University, Electronics Technician.

Political Science: Kathleen Kerns, B.A., University of Pennsylvania, Deborah Sloman, Administrative Assistants.

Psychology: Joanne Bramley, Administrative Coordinator; Julia Welbon, B.A., William Smith College, Academic Coordinator; Donald Reynolds, Instrumentation Technician.

Public Policy: Catherine Wareham, A.S., Wesley College, Administrative Assistant.

Religion: Eileen McElrone, Administrative Assistant.

Sociology and Anthropology: Rose Maio, Administrative Assistant.

Special Projects: Pauline M. Carroll, Administrative Assistant.

Visiting Examiners 1998

ART

Professor Kathleen Nolan, *Hollins College*
Professor Quitman Eugene Phillips, *University of Wisconsin-Madison*
Professor Christine Poggi, *University of Pennsylvania*
Professor Jane Mayo Roos, *University of New York*

ASIAN STUDIES

Professor Mark Chiang, *University of Pennsylvania*

BIOLOGY

Professor Stanley R. Maloy, *University of Illinois*
Professor Shahid Naeem, *University of Minnesota*
Professor John Olson, *Villanova University*
Professor Terry L. Page, *Vanderbilt University*
Professor David J. Perkel, *University of Pennsylvania*
Professor Ann E. Stuart, *University of North Carolina-Chapel Hill*
James F. Thorne, *The Nature Conservancy*
Professor Robert Trivers, *Rutgers University*
Professor Janice Voltzow, *University of Scranton*
Professor W. Herbert Wilson, Jr., *Colby College*

CHEMISTRY

Professor James Coe, *Ohio State University*
Professor Ann McDermott, *Columbia University*
Professor Jack Norton, *Columbia University*

CLASSICS

Professor T. Corey Brennan, *Bryn Mawr College*
Professor Elaine Fantham, *Princeton University*
Professor Christopher Shields, *University of Colorado*

COMPUTER SCIENCE

Professor Douglas Blank, *University of Arkansas*
Professor Robert L. (Scott) Drysdale, *Dartmouth College*
Professor Jonathan Rossie, Jr., *North Carolina State University*

ECONOMICS

Dr. Mitchell Berlin, *Federal Reserve Bank of Philadelphia*

Professor Eleanor Brown, *Pomona College*
Professor Jonathan Conning, *Williams College*
Professor Duncan Foley, *Barnard College*
Professor George Jakobson, *Cornell University*
Professor Frank Levy, *MIT*
Professor Jeffrey Miller, *University of Delaware*
Professor Robert Murphy, *Boston College*
Professor Peter Zaleski, *Villanova University*

EDUCATION

Professor Barbara Beatty, *Wellesley College*
Dean Randy Mildren, *Haverford College*

ENGINEERING

Professor Fernand Cohen, *Drexel University*
Kevin Flood, *LSA*
Professor Kenneth R. Foster, *University of Pennsylvania*
Professor Victor Kaliakin, *University of Delaware*
Professor Susan M. Lord, *University of San Diego*
Professor John Molyneux, *Widener University*
Professor Michael Schulte, *Lehigh University*

ENGLISH LITERATURE

Professor Marcus Cafagna, *LaSalle University*
Professor Katie Conrad, *University of Kansas*
Professor Timothy Corrigan, *Temple University*
Professor Ann Cvetkovich, *University of Texas-Austin*
Professor Maria Di Batista, *Princeton University*
Professor Elaine Hansen, *Haverford College*
Professor Cassandra Laity, *Drew University*
Professor Laurie Osborne, *Colby College*
Professor Arden Reed, *Pomona College*
Professor Patricia Yeager, *University of Michigan-Ann Arbor*

ENVIRONMENTAL STUDIES

Professor Charles ReVelle, *Johns Hopkins University*

FRANCOPHONE STUDIES

Professor Irlene Francois, *Goucher College*

GERMAN STUDIES

Professor Michael Rothberg, *University of Miami*

HISTORY

Professor William Bowman, *Gettysburg College*
Professor Pamela Crossley, *Dartmouth College*

Professor Walter Johnson, *New York University*
Professor Peter Kolchin, *University of Delaware*
Professor Louise McReynolds, *University of Hawaii*
Professor Lynn Thomas, *University of Washington*
Professor Sharon Ullman, *Bryn Mawr College*

INTERPRETATION THEORY

Professor Harold Bershad, *University of Pennsylvania*
Professor Ann Cvetkovich, *University of Texas-Austin*

LINGUISTICS

Professor Donka Frankel Farkas, *University of California-Santa Cruz*
Lecturer Sheila Rosalie Glasbey, *University of Edinburgh*
Professor Ellen Prince, *University of Pennsylvania*

MATHEMATICS

Professor Don Davis, *Lehigh University*
Professor Mark Glickman, *Boston University*
Professor George Kamberov, *Washington University*
Dr. James Kraft, *National Security Agency*
Professor Paul Monsky, *Brandeis University*
Professor Ayse Sahin, *North Dakota State University*

MODERN LANGUAGES – GERMAN

Professor Christian Rogowski, *Amherst College*

MODERN LANGUAGES – RUSSIAN

Professor George Pahomov, *Bryn Mawr College*

MODERN LANGUAGES – SPANISH

Professor Miguel Gonzalez-Gerth, *University of Texas-Austin*

MUSIC

Ingrid Arauco, (Formerly) *University of North Carolina*
Professor Stephen A. Crist, *Emory University*
Professor Cynthia Folio, *Temple University*
Professor John Halle, *Yale University*
Geoffrey Michaels
Professor Evan Ziporyn, *MIT*

PEACE & CONFLICT STUDIES

Professor Robert Paarlberg, *Wellesley College*

PHILOSOPHY

Professor Charles Brittain, *Cornell University*
Professor Paul Churchland, *University of California-San Diego*
Professor Lewis Gordon, *Brown University*
Professor Robert Louden, *University of Southern Maine*
Professor William Peck, *Reed College*
Professor Gopal Sreenivasan, *Princeton University*

PHYSICS & ASTRONOMY

Professor David Griffiths, *Reed College*
Professor Dana Longcope, *Montana State University*
Professor David C. Montgomery, *Dartmouth College*
Professor Kenneth D. Singer, *Western Reserve University*

POLITICAL SCIENCE

Professor John Harbeson, *City College of New York*
Professor Christopher Howard, *William & Mary College*
Professor Gerard Huiskamp, *Haverford College*
Professor Anita Issacs, *Haverford College*
Professor Ronald Kahn, *Oberlin College*
Professor Joshua Miller, *Lafayette College*
Professor Anne Norton, *University of Pennsylvania*
Professor Robert Paarlberg, *Wellesley College*

PSYCHOLOGY

Professor Philip J. Kellman, *UCLA*
Professor Suzanne Kirschner, *College of the Holy Cross*
Professor Susan Opotow, *University of Massachusetts-Boston*
Professor Kenneth R. Short, *Grinnell College*
Professor Stanton E. F. Wortham, *Bates College*

PUBLIC POLICY

Professor Andrew Gold, *Trinity College*
Professor John Harbeson, *City College of New York*
Professor Peter Zaleski, *Villanova University*

RELIGION

Professor Anne Blackburn, *University of South Carolina*
Professor Charles Hallisey, *Harvard University*
Professor Morny Joy, *University of Calgary*

Visiting Examiners

Professor Kenneth Koltun-Fromm,
Haverford College
Professor Anne McGuire, *Haverford College*
Professor Peter Williams, *Miami University*
Professor Elliot Wolfson, *New York University*

SOCIOLOGY & ANTHROPOLOGY

Professor Barbara Beatty, *Wellesley College*
Professor Harold Bershad, *University of
Pennsylvania*
Professor Paul Brodwin, *University of
Wisconsin-Milwaukee*
Professor Yvette Christianse, *Fordham
University*
Professor Kathryn Edin, *University of
Pennsylvania*
Professor James Faubion, *Rice University*
Professor Anne Meneley, *Lewis and Clark
College*
Regan Ralph, *The Human Rights Watch*
Professor Ted Swedenburg, *University of
Arkansas*

THEATRE STUDIES

Professor Cary Mazer, *University of
Pennsylvania*
Professor Helen E. Richardson, *University
of Utah*
Professor Helena M. White, *University of
the Arts*

WOMEN'S STUDIES

Professor Randy Mildren, *Haverford College*

Degrees Conferred

June 1, 1998

BACHELOR OF ARTS

- Takuji Aida, *Economics and Mathematics*
Amy Sara Albert,⁹ *Sociology & Anthropology*
Joshua Freeman Alloy, *Political Science*
Mary Elizabeth Alvarez, *Religion*
Saudia Amiruddin, *Psychology*
Danielle Marie Anctil, *Special Major: Music and Sociology & Anthropology*
Alix Christine Anderson, *Biology*
David Javier Andrade,¹¹ *Special Major: Linguistics*
Bridget Eileen Arbour, *Philosophy*
Joseph Matthew Armah, *Mathematics*
Daniel Thomas Artig, *Psychology*
Kathryn Louise Auld, *Biology*
Sarah April Azarsky, *Religion*
Deena Danielle Bahri, *English Literature and French*
Nancy Katherine Baird, *Special Major: Cultural Studies*
Peter Timothy Balvanz, *Special Major: Biological Anthropology*
Sean Lewis Barney, *History and Special Major: Political Science, Philosophy and Economics*
Gil Michael Barretto,² *Physics*
Daniel Robert Barrick, *English Literature*
Lauren Stacey Basta, *Political Science*
Erika Baumgartner, *Biology*
Kelly Claire Baxter, *Biology*
Ariel Golden Behr,⁷ *Sociology & Anthropology*
Koren Larissa Bell, *Political Science*
Thomas Mckinley Bell, *Philosophy*
Gabriel Benjamin-Fernandez, *Physics*
Nancy Jean Benson-Nicol, *Sociology & Anthropology*
Douglas Bradley Berger, *Philosophy*
Melissa Diane Binde, *Religion and Special Major: Computer Science*
Liza Marie Bonilla, *Religion*
Mark Boulos, *Philosophy*
Rachel Anne Brakke, *Biology*
Rachel Laura Breitman,¹¹ *English Literature*
Tamara Jane Brenner, *Special Major: Biochemistry*
Ian Shaw Bricke, *English Literature*
Jason Gabriel Luciano Bromer, *Biology*
David Jonathan Bruemmer, *Religion and Special Major: Computer Science*
Seth Alexander Budick, *Biology*
Anthony Marlon Buendia, *Economics*
Faye Ann Bulaon, *Political Science*
Frederic Albert Bush, *Psychology and English Literature*
Anne Elizabeth Byrd, *Art History*
Manuel Carballo Sayao, *Economics*
Marialuz Castro,⁷ *Sociology & Anthropology*
Jimmy Chan, *Special Major: Chinese Studies*
Jonathan David Charen, *Art History and Biology*
James L. Chen, *Biology*
Connie Man Yin Cheung, *Sociology & Anthropology and Special Major: Chinese Studies*
Lynn Hope Chosiad, *Biology*
John Paul Christodouleas, *Mathematics and Philosophy*
Courtney Eleanor Clark, *Theatre Studies*
Crispin Charles Alexander Clark, *Sociology & Anthropology*
Sasha Winn Clayton, *Psychology*
Daniel Patrick Clowes, *Sociology & Anthropology*
Leora Cohen McKeon, *Biology*
Sharon Coleman, *English Literature*
Linda Ann Colwell,⁵ *Political Science and Psychology*
Margaret Ellen Coote, *German*
Ana Carolina Corrales,⁷ *Spanish*
Jennifer Fay Cox, *Political Science*
Courtney Pray Cupples, *Sociology & Anthropology*
Cynthia Leigh Curl, *Chemistry*
Amy Lorraine Dalton, *Sociology & Anthropology*
Tinsley Hayes Davis, *Biology*
Sacha-Ellis De Lange,⁴ *History*
Alice Elizabeth Decker, *Economics*
Sonya Klaw Del Tredici, *Mathematics*
John Joseph Delatush, *Political Science*
Alex Martin Deshields, *Philosophy*
Yonathan Dessalegn, *Special Major: Linguistics*

1 with the concentration in Black Studies

2 with the concentration in Computer Science

3 with the concentration in Environmental Studies

4 with the concentration in Francophone Studies

5 with the concentration in International Relations

6 with the concentration in Interpretation Theory

7 with the concentration in Latin American Studies

8 with the concentration in Peace and Conflict Studies

9 with the concentration in Public Policy

10 with the concentration in Women's Studies

11 Pennsylvania Teacher Certification

Degrees Conferred

- Meghan Sarah Dillon,¹⁰ *English Literature*
Emilie Disney-Hoey, *Psychology*
Tam Minh Doan, *Physics*
Sonja Lynn Downing,³ *Music*
Rafael Jonathan Dowty,² *History*
James Joseph Duckman, *Medieval Studies*
Nina Anne Dudash, *Philosophy*
Danielle Duffy, *Special Major: Biochemistry*
Stephanie Beth Dyrkacz,² *Mathematics*
Robert William Eberhardt, *Biology*
Assad El-Karim Ebrahim, *Mathematics*
Kierstin Raylene Edwards, *Political Science*
Erica Beth Eisenberg, *Theatre Studies*
Daniel Eugene Eisenbud, *Mathematics*
Lea Kristin Ekeberg, *Asian Studies and French*
Hannah Williams Emlen, *Music*
Neil Michael Epstein, *Mathematics and Special Major: Linguistics*
Edwin Charles Ernst IV, *Philosophy*
Julie Young Falk, *English Literature and Art History*
Eric Abraham Falke, *Special Major: Psychobiology*
Meghan Kathleen Falvey, *Sociology & Anthropology*
Elizabeth Helene Farley, *Psychology*
Christopher J. Fecko, *Chemistry and Physics*
Jessica Margaret Fisher, *English Literature*
Teodor Viorel Florea,⁶ *Political Science and Sociology & Anthropology*
Ashley Carter Flynn, *Biology*
Christopher Thomas Foley, *Religion*
Heather Tressel Frank, *Music*
Anna Westfall Fricke, *Theatre Studies and English Literature*
Mark William Friedberg, *Economics and Mathematics*
Elizabeth Miriam Galatin, *Religion and Biology*
Daniel Lawrence Gallant, *English Literature*
Kimberly Pederson Gallup,¹⁰ *English Literature*
Jean-Marc Gauguet, *Special Major: Biochemistry*
David Christopher Giles, *Philosophy*
James A. Gill, *Special Major: Mathematics and Physics*
Susannah Starr Glidden, *Sociology & Anthropology*
Bryan C. Gobin, *Economics*
Maria-Fernanda Gonzalez, *Special Major: Psychology and Education*
Giovi T. Grasso-Knight, *Biology*
Rebecca Tana Green, *History*
Jennifer Wendy Gross, *Biology*
Amelia Sims Grossman, *Greek*
Justin Allyn Hall, *Special Major: Meaning, Context and Media*
Matthew Evan Halpern, *Biology*
Amber Hope Halsey,⁹ *Economics*
Kimberly Paige Hart,¹¹ *Spanish*
Danielle Marie Hartman,³ *Biology*
Jonathan Immanuel Hauze, *Religion*
Jordan Maureen Hay,² *Economics*
Azeez Hayne, *Biology*
Michanne Vonetta Haynes, *Economics*
Laird Elizabeth Hedlund, *Religion*
Matthew Samuel Hellman,⁹ *Philosophy and Economics*
Kara Marie Herzog,¹⁰ *Theatre Studies*
Aaron David Hoffman, *Mathematics*
Joan Audrey Hoffmann, *Physics and Mathematics*
Ethan Bela Holland,¹ *English Literature*
Byron Richard Holz, *Music*
Cynthia Guat-Heem Hong, *Art*
Lauren Elizabeth Hopkins, *Physics*
Herrin Hopper,¹⁰ *Sociology & Anthropology*
Elizabeth Houle, *French*
Amanda Marie Hourihan, *Special Major: History and Education*
Sarah Jane Howard,⁷ *Spanish*
Meagan Maurice Howell, *Religion*
Jessica Alwes Howington,³ *Biology*
Paul A. Hsu, *Physics and Economics*
Elaine May Huang, *Special Majors: Linguistics and Computer Science*
Aaron Lawrence Hultgren, *Philosophy*
Julia Michelle Humphreys, *Biology and English Literature*
Margaret Reed Hutchins, *English Literature*
Anjolie Elizabeth Idicula, *Special Major: Psychobiology*

1 with the concentration in Black Studies

2 with the concentration in Computer Science

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6 with the concentration in Interpretation Theory

7 with the concentration in Latin American Studies

8 with the concentration in Peace and Conflict Studies

9 with the concentration in Public Policy

10 with the concentration in Women's Studies

11 Pennsylvania Teacher Certification

- Lauren Anne Jacobi, *Art History and English Literature*
- Christopher Keith Jahnke, *English Literature*
- Sarah Jane Jaquette,¹⁰ *Religion*
- Erica Marie Johanson, *Philosophy*
- Andrea Jacqueline Johnson, *Theatre Studies*
- Fatimah M. Johnson, *Sociology & Anthropology*
- Daniel Patrick Johnston, *Chemistry*
- Vincent Deondrake Jones, *History*
- Emily A. Kalovidouris, *Philosophy*
- Pinar Karaca,⁹ *Economics and Mathematics*
- Peter Silas Karacki, *Special Major: Biochemistry*
- John Wilson Kello, *English Literature*
- Morgan Wolcott Kelly,^{3,9} *Biology*
- Eric William Kem, *Philosophy*
- Benjamin Bartlett Kennedy, *Economics and Mathematics*
- Ryan Barrett Kennedy, *Philosophy and Physics*
- Kimon Alexander Keramidas, *Theatre Studies*
- Julia Anne Kernochan, *Religion*
- Rachel Carlin Kidman, *Biology*
- Mina Maria Kim,⁹ *Economics*
- Ryon Hee Kim, *History*
- Sonia Joyce Kimm, *French*
- Duncan Charles Kirkpatrick, *English Literature*
- Kevin Richard Kish, *Sociology & Anthropology*
- Jennifer Reita Klein,⁷ *Political Science and Spanish*
- Nathaniel Ronald Knowles Jr., *Asian Studies*
- Sarah Louise Knudsen, *Sociology & Anthropology*
- Thomas Whitmore Kornack, *Physics and Special Major: Linguistics*
- Nancy Susan Koven,¹⁰ *Psychology*
- Erika Lauren Krick,¹⁰ *Biology*
- Catherine Florence Lainé, *Biology*
- Lisa Vanessa Lalljie, *Political Science*
- Jacob Abraham Latham, *Art History and Religion*
- Delila Rebecca Leber,⁷ *Sociology & Anthropology*
- Edgar Khang-Ouk Lee,⁹ *Economics*
- Jennifer Young Lee,⁹ *Religion*
- Maryann Jeung Lee, *Biology*
- Dana Lyn Lehman,¹¹ *Physics*
- Ariane Mary Aphrodite Liazos, *History*
- Alexandra Jane Lin, *Art and Special Major: Linguistics*
- Joanne Shing-Wen Lin, *Special Major: Environmental Systems Modeling*
- Robert Coleman Lindsley Jr., *Music*
- Raven Crystal Lipmanson, *Chemistry*
- Jeffrey William Lockman, *Chemistry*
- Kimberly Ann Lombardo, *Psychology*
- Jonathan Todd Makler,¹⁹ *Special Major: Environmental Engineering and Policy*
- Molly Collins Marino,⁷ *Spanish*
- Allison Courtney Marsh,² *History*
- David Konstantine Martinez, *Biology*
- Lynn Turner Matthews, *Biology*
- George Stephan Matula, *Biology*
- Charles Gabriel Mayer, *History*
- Susannah Ruth McCandless,^{4,7} *Biology*
- Ronan Adren McCoy, *Sociology & Anthropology*
- Larry Alan McDowell, *English Literature*
- Jessica Leigh McFarland, *Philosophy*
- Robert Clifford McGreevey, *History*
- Mary Luthien Juliana McMenomy, *Greek*
- Naomi Anne Michlin, *Mathematics*
- Charity Melissa Miller, *Psychology*
- Naisha Olisa Miller, *Chemistry*
- Tsuyoshi Mitarai, *Economics*
- Robert Edward Monk, *English Literature*
- Tamala Treon Montgomery, *Political Science*
- Michael James Murphy, *Physics*
- Frank Andrew Murray, *Political Science and English Literature*
- Seth Michael Murray, *Economics and Mathematics*
- Christopher Jason (Muth) Stawski, *Religion*
- Matthew David Neal,¹¹ *English Literature*
- Kamilah Omolara Neighbors,¹ *Psychology*
- Kimberly Ilissa Nelson,¹¹ *Biology*
- My Phuong Thi Nguyen, *Biology*
- Bernard Salim Nossuli, *Economics*
- Brian Gerald O'Connell, *History*
- Richard Herbert Okello,⁹ *Economics*
- Jessica Dawn Orłowski, *Philosophy*
- Michelle Meeyoung Park, *Psychology*
- Marc Edward Pasciucco, *Music*

1 with the concentration in Black Studies

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7 with the concentration in Latin American Studies

8 with the concentration in Peace and Conflict Studies

9 with the concentration in Public Policy

10 with the concentration in Women's Studies

11 Pennsylvania Teacher Certification

Degrees Conferred

- Shoshannah Anne Pearlman, *Special Major: Biochemistry*
- Derrick Andre Perkins, *Psychology*
- Louis Darcy Peterson, *Economics and Art*
- Sarah Lynne Pheasant, *History*
- Sarah Laverne Piatt, *Music*
- Ariel David Plost, *Sociology & Anthropology and History*
- Ahsiya Beth Posner, *Special Major: Education and Sociology & Anthropology*
- James Duncan Rice, *Greek and Biology*
- Rebecca Linn Risky, *Special Major: Biochemistry*
- Anna Forbes Rives, *Biology*
- Andrew Richard Robbins, *Psychology*
- Kristen Robertson, *Special Major: Psychology and Education*
- Joseph Merritt Robins, *Mathematics and Special Major: Computer Science*
- Christophe Henri Nicolas Rockmore, *Economics*
- Christopher Nicholas Rodger, *Economics*
- Catherine Blanche Rose, *Art*
- Elena Rosenbaum, *Special Major: Psychobiology*
- Elizabeth Patton Rosenbaum,¹⁰ *Psychology*
- Jesse Karl Rosenthal,⁶ *English Literature*
- Erik William Rosolowsky, *Special Major: Astrophysics*
- Bonnie Marie Rostan, *History*
- Jason Frank Rothenberg, *Special Major: Film Studies*
- Douglas Arthur Allen Rouse,⁹ *Special Major: Psychobiology*
- Erin Elisabeth Ruble, *English Literature*
- Patrick Raymond Runkle, *Special Major: Linguistics*
- Marianna B. Ruzinova, *Special Major: Biochemistry*
- Rumki Saha,¹⁰ *Economics*
- Rahul Sakhuja,⁹ *Special Major: Psychobiology*
- Solimar Gricell Salas Rodriguez,⁷ *Special Major: Biological Anthropology*
- Shirley Natali Salmeron,⁹ *Political Science*
- Carl Elliott Sanders, *Special Major: Computer Science*
- Kristin Lindsay Savicki, *Religion*
- Miriam Adelaide Elsa Schmidt, *Philosophy*
- Kate Zoe Schneider,³ *Biology*
- Sandra Schrauf, *Economics*
- Tara Anne Schubert, *Biology*
- Samuel Aryeh Schulhofer-Wohl, *Physics*
- Joel Theodore Schultz, *Philosophy*
- Roslyn Imoinda Scott, *Psychology*
- Rhea Sujin Seo, *English Literature*
- Simona Benedetta Serio,⁷ *French and Spanish*
- Gaurav Seth, *Economics and Special Major: Computer Science*
- Rani Theresa Shankar, *Biology*
- Emily Setsuko Shartin,¹⁰ *English Literature*
- Hillary Alison Sheipe, *Biology and History*
- Neena Ganguli Shenai, *Latin and Political Science*
- Steven Dong Soo Shin, *Economics*
- Timothy Verbeck Sibley, *Mathematics and Physics*
- Vanessa Joy Silberman, *History*
- Alison Margaret Sipler, *Special Major: Biological Anthropology*
- Ned Putnam Small, *Sociology & Anthropology*
- Rebecca Lee Snyder, *Biology*
- Peter Kieilty Sollins, *Mathematics and Special Major: Astrophysics*
- Jennifer Ivy Sorowitz, *Biology*
- Eve Christina Sorum,⁹ *English Literature*
- Giridhar Narasimhan Srinivasan, *Economics*
- Matthew Jacob St. Clair,⁸ *Economics*
- Alec Christian Stall, *Special Major: Biological Anthropology*
- Heather Lynn Stickney, *Biology*
- Wyndam M. Strodtbeck, *Political Science*
- Amrita Sudhir, *Biology*
- Adrian Peng Kuan Tay, *Economics*
- Jeremy Craig Taylor, *Religion*
- Hannah Meredith Teicher, *Sociology & Anthropology*
- Kelli Kristina Tennent, *Philosophy*
- Maurisa Lynne Thompson, *English Literature*
- Elena Milinda Trujillo, *Theatre Studies*
- Cecilia Tsu, *History*
- John Henry Tull IV, *Asian Studies*
- Cathlin Diane Tully, *Economics and Religion*
- Na'im R. Tyson, *Special Major: Linguistics*

1 with the concentration in Black Studies
 2 with the concentration in Computer Science
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 5 with the concentration in International Relations
 6 with the concentration in Interpretation Theory

7 with the concentration in Latin American Studies
 8 with the concentration in Peace and Conflict Studies
 9 with the concentration in Public Policy
 10 with the concentration in Women's Studies
 11 Pennsylvania Teacher Certification

Jude Chike Uzonwanne, *Economics and Political Science*
 Matthew David Van Itallie, *History*
 Daniel Feller Vatner, *Chemistry*
 Christina Viola,³ *Biology*
 Kristin Leigh Vitalich, *Special Major: Linguistics and Languages*
 Danielle Dell Wall, *Special Major: Biochemistry*
 Peter Semmes Walmsley, *Greek and Economics*
 Sarah Ruth Wamester, *English Literature and Spanish*
 Jagath Chandima Wanninayake,⁹ *Economics*
 Erin Corinne Watson, *Theatre Studies*
 Elizabeth Anna Weber, *Economics*
 Jennifer Dana Weiss, *English Literature and History*
 Victor Pablo White,⁷ *Sociology & Anthropology*
 Elizabeth Marie Wiles, *Special Major: Psychobiology*
 Michael Morgan Williams, *Special Major: Cultural Theory*
 Emily Marie Willits,⁸ *History*
 Mary Norton Wiltenburg, *English Literature*
 Katherine Ann Wu, *Special Major: Biology and Education*
 Roanna Constancia Fernandez Yangco, *Sociology & Anthropology*
 Ayla Yavin, *Religion*
 Leslianne Elizabeth Yen, *Special Major: Environmental Science*
 Kuo-Hui Frank Yu,⁶ *Psychology*
 Tara Elizabeth Zahra, *History and Economics*

BACHELOR OF SCIENCE

Joseph Matthew Armah, *Engineering*
 David E. Bosworth, *Engineering*
 Corinne Bright, *Engineering*
 Philip Kempton Degreen, *Engineering*
 Jonathan David Fiorello, *Engineering*
 Jonathan Alan Francis, *Engineering*
 Benjamin Hauch Hall, *Engineering*
 Byron Richard Holz, *Engineering*
 Dylan Wells Humphrey, *Engineering*

1 with the concentration in *Black Studies*
 2 with the concentration in *Computer Science*
 3 with the concentration in *Environmental Studies*
 4 with the concentration in *Francophone Studies*
 5 with the concentration in *International Relations*
 6 with the concentration in *Interpretation Theory*

7 with the concentration in *Latin American Studies*
 8 with the concentration in *Peace and Conflict Studies*
 9 with the concentration in *Public Policy*
 10 with the concentration in *Women's Studies*
 11 *Pennsylvania Teacher Certification*

Awards and Distinctions

HONORS AWARDED BY THE VISITING EXAMINERS

HIGHEST HONORS:

Anne Elizabeth Byrd, Mark Friedberg, James A. Gill, Matthew Hellman, Aaron Marsh, Susannah McCandless, Erik Rosolowsky, Marianna Ruzinova

HIGH HONORS:

Sarah Azaransky, N. Kate Baird, Daniel Barrick, Koren Bell, Douglas Berger, Mark Boulos, Ian Shaw Bricke, Jason Bromer, Dave Bruemmer, Linda Ann Colwell, Amy L. Dalton, Sonja Downing, Robert Eberhardt, Neil Epstein, Eric Falke, Christopher Fecko, Jessica Fisher, Heather Frank, Daniel Gallant, Amelia Grossman, Jordan Hay, Aaron Hoffman, Joan Hoffmann, Julia Humphreys, Margaret Hutchins, Pinar Karaca, John Wilson Kello, Thomas Kornack, Nancy Susan Koven, Jeffrey Lockman, Michael J. Murphy, Seth Murray, Christopher (Muth) Stawski, Matthew Neal, Sarah Piatt, James Rice, Jesse Karl Rosenthal, Erin Ruble, Kristin L. Savicki, Rhea Sujin Seo, Neena Shenai, Eve Sorum, Jeremy Taylor, Kelli Tennent, Cecilia Tsu, Matthew Van Itallie, Sarah Wamester, Emily Willits, Tara Zahra

HONORS:

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ELECTIONS TO HONORARY SOCIETIES

PHI BETA KAPPA:

Danielle Marie Anctil, Erika Baumgartner, Koren Larissa Bell, Douglas Bradley Berger, Tamara Jane Brenner, Ian Shaw Bricke, David

Jonathan Bruemmer, Seth Alexander Budick, Anne Elizabeth Byrd, Margaret Ellen Coote, Sacha Ellis de Lange, Robert William Eberhardt, Christopher J. Fecko, Jessica Margaret Fisher, Teodor Viorel Florea, Mark William Friedberg, Jean-Marc Gauguet, James A. Gill, Matthew Evan Halpern, Matthew Samuel Hellman, Joan Audrey Hoffmann, Elizabeth Houle, Margaret Reed Hutchins, Benjamin Bartlett Kennedy, Julia Anne Kernochan, Kevin Richard Kish, Thomas Whitmore Kornack, Nancy Susan Koven, Robert Coleman Lindsley Jr., Susannah Ruth McCandless, Jessica Leigh McFarland, Michael James Murphy, Frank Andrew Murray, Michelle Meeyoung Park, Sarah Laverne Piatt, Ahsiya Beth Posner, Anna Forbes Rives, Elena Rosenbaum, Jesse Karl Rosenthal, Erik William Rosolowsky, Erin Elisabeth Ruble, Kristin Lindsay Savicki, Sandra Schrauf, Samuel Aryeh Schulhofer-Wohl, Eve Christina Sorum, Heather Lynn Stickney, Kelli Kristina Tennent, Cecilia Tsu, Matthew David Van Itallie, Tara Elizabeth Zahra

SIGMA XI:

Joseph Matthew Armah, Douglas Bradley Berger, Tamara Jane Brenner, Corinne Bright, Jason Gabriel Luciano Bromer, David Johnathon Bruemmer, Cynthia Leigh Curl, Tinsley Hayes Davis, Sonja Lynn Downing, Danielle Duffy, Stephanie Beth Dyrkacz, Robert William Eberhardt, Assad El-Karim Ebrahim, Erick Abraham Falke, Christopher J. Fecko, Jonathan David Fiorello, Elizabeth Miriam Galatin, Jean-Marc Gauguet, James A. Gill, Matthew Evan Halpern, Aaron David Hoffman, Byron Richard Holz, Lauren Elizabeth Hopkins, Julia Michelle Humphreys, Anjolie Elizabeth Idicula, Pinar Karaca, Peter Silas Karacki, Thomas Whitmore Kornack, Nancy Susan Koven, Sylvia Dokua Sakyiama Kwakye, Raven Crystal Lipmanson, Jeffrey William Lockman, Kimberly Ann Lombardo, Aaron Ming Marsh, Carl Jordan Mas, Lynn Turner Matthews, Susannah Ruth McCandless, Michael James Murphy, Marc Edward Pasciucco, Shoshanna Anne Pearlman, James Duncan Rice, Rebecca Linn Risky, Andrew Richard Robbins, Christopher Nicholas Rodger, Elena Rosenbaum, Erik William Rosolowsky, Douglas Arthur Allen Rouse, Marianna B.

Ruzinova, Rahul Sakhuja, Noah Ben Salzman, Carl Elliott Sanders, Samuel Aryeh Schulhofer-Wohl, Hillary Alison Scheipe, Peter Kieilty Sollins, Heather Lynn Strickney, Amita Sudhir, Daniel Feller Vatner, Danielle Dell Wall

TAU BETA PI:

Jonathan Alan Francis, Benjamin Hauch Hall, Byron Richard Holz, Aaron Ming Marsh, Adrian Peng Kuan Tay

FELLOWSHIPS

The Susan P. Cobbs Prize Fellowship to Mary McMenemy '98

The Sarah Kaighn Cooper Scholarship to Rachel Goldman '99 and Robert Griffin '99

The Eugene M. Lang Graduate Incentive Fellowship to Kristin Sostowski '97

The Hannah A. Leedom Fellowship to Douglas Berger '98, James Gill '98, and Zack Kramer '94

The Joshua Lippincott Fellowship to Nancy Koven '98, Jacob Latham '98, Jennifer Owen '94, James Rice '98, Neena Shenai '98, and Jonah Steinberg '97

The John Lockwood Memorial Fellowship to Karen Lee Birdsall '94, Jonathan Makler '98, and Emily Smith '94

The Lucretia Mott Fellowship to Gabriela Gomez-Carcamo '94, Joanna Lin '98, Kimberly Lombardo '98, Melanie Markowirz '95, and Mary McMenemy '98

The Martha E. Tyson Fellowship to Hilary Beth Gehlbach '96, Than Kim Hoang '97, and Charlotte North '95

AWARDS AND PRIZES

The Stanley Adamson Prize in Chemistry to Diana Hunt '99

The Jonathan Leigh Altman Summer Grant to Alice Unger '99

The American Chemical Society Undergraduate Award in Polymer Chemistry to Rachel Goldmann '99

The American Chemical Society Undergraduate Award in Analytical Chemistry to Maria Krisch '99

The American Chemical Society Scholastic Achievement Award to Jean-Marc Gauguet '98 and Christopher Fecko '98

The American Institute of Chemists Student Honor Award to Tamara Brenner '98 and Marianna Ruzinova '98

The Solomon Asch Award in Psychology to Nancy Koven '98, Kimberly Lombardo '98, and Elizabeth Wiles '98

The Boyd Barnard Prize to Katherine Hall '99
The James H. Batton '72 Award to Kim Foote '00

The Paul H. Beik Prize in History to Cecilia Tsu '98

The Tim Berman Memorial Award to Wyn Strodtbeck '98

The Black Alumni Prize to Vincent Kelly '00 and Desiree Peterkin '00

The Brand Blanshard Prize in Philosophy to Edwin Charles Ernst IV '98

The Sophie and William Bramson Prize to Jonah Steinberg '97

The Susan P. Cobbs Scholarship to Joel Yurdin '99

The CRC Press Freshman Chemistry Achievement Award to Polina Kehayova '01

Chemistry Department Service Awards to Jeff Lockman '98, Dan Vatner '98, and Seth Garber '99

The Alice L. Crossley Prize in Asian Studies to Sonja Downing '98 (first prize) and Cecilia Tsu '98 (second prize)

The Robert Dunn Award to Tucker Zengerle '00 and Steve Dawson '00

The Lew Elverson Trophy to Tim Schofield '99

The Robert Enders Field Biology Award to Danielle Thomas '99

The Department of English Literature Freshman Writing Prize for the Class of 2000 to Julie Levin Russo '00

The Department of English Literature Summer Writing Stipend to Erika Johansen '99

The Flack Achievement Award to Sonali Chakravarti '00

Awards and Distinctions

The Gonzalez-Vilaplana Prize for Outstanding Achievement in Chemistry to Jean-Marc Gauguier '98, Christopher Fecko '98, Tamara Brenner '98, and Marianna Ruzinova '98

The John Russell Hayes Poetry Prizes to Kevin Kish '98 and Mary Meiklejohn '99

The Samuel Hayes III Research Grant to Abigail Salerno '99

The Pete Hess Award to Desiree Peterkin '00

The Philip M. Hicks Prize for Literary Criticism Essay to Jessica Fisher '98 (first prize), and Mary Wiltenburg '98 (second prize)

The Jesse H. Holmes Prize in Religion to Erin Ruble '98 and Jacob Latham '98

The Gladys Irish Award to Danielle Duffy '98

The Ivy Award to Mark Friedberg '98

The Michael Keene Award to Matthew St. Clair '98

The Kwink Trophy to Mark Friedberg '98

The Lande Field Biology Award to Eric Von Wettberg '99

The Leo Leva Memorial Prize in Biology to Rob Eberhardt '98, Lynn Matthews '98, and Susannah McCandless '98

The Linguistics Prizes to Tom Kornack '98 (theoretical linguistics), Elaine Huang '98 and Jennifer Freeman '98 (applications linguistics)

The McCabe Engineering Award to Aaron Ming Marsh '98

The Norman Meinkoth Field Biology Award to Martine Claremont '99

The Morris Monsky Prize in Mathematics to Yuhai Xuan '01 and Benjamin Newman '01

The Lois Morrell Poetry Award to Jessica Fisher '98

The A. Edward Newton Library Prizes to Jerry Melichar '00 (first prize), Wendy Kemp '99 (second prize), Jessica Alwes Howington '98 (third prize)

The Oak Leaf Award to Tara Zahra '98

The May E. Parry Award to Michelle Walsh '98

The William Plumer Potter Prizes in Fiction to Erika Johansen '99 (first prize), Anna Fricke '98 (second prize), Emily Topper '99 (third prize)

The Ernie Prudente Award to Danielle Wall '98

The Dinny Rath Award to Kristen Robertson '98 and Catherine Lainé '98

The Frank Solomon Jr. Student Art Prize to Nancy Katherine Baird '98, Lou Peterson '98, and Graham Lucks '98

The Hally Jo Stein Memorial Award for Dance to Kimon Keramidas '98 and Derrick Perkins '98

The Karen Dvonch Steinmetz '76 Memorial Award to Rahul Sakhuja '98

The Peter Gram Swing Prize to Sonja Downing '98

The Melvin B. Troy Award to Sonja Downing '98 and Coleman Lindsley '98 (music); Ayla Yavin '98 (dance)

The Vollmecke Service Award to Mong-ying Hsieh '99

The Hans Wallach Research Fellowship to Aarti Iyer '99

Enrollment Statistics

ENROLLMENT OF STUDENTS BY CLASSES 1997-98

	MEN	WOMEN	TOTAL
Seniors	139	183	322
Juniors	132	129	261
Sophomores	191	204	395
Freshmen	180	194	374
	642	710	1352
Graduate Students	0	0	0
Special Students	8	9	17
TOTAL	650	719	1369

GEOGRAPHICAL DISTRIBUTION OF STUDENTS 1997-98

New York	207	Arizona	4	Mexico	2
Pennsylvania	160	Hawaii	4	Pakistan	2
California	120	Nevada	4	Philippines	2
New Jersey	90	Kansas	3	Peoples Republic of China	2
Massachusetts	84	Puerto Rico	3	Taiwan	2
Maryland	69	Rhode Island	3	Trinidad & Tobago	2
Connecticut	48	Virgin Islands	3	Venezuela	2
Virginia	44	West Virginia	3	Australia	1
Florida	40	Alabama	2	Austria	1
Washington	29	Army Post Offices	2	Bahrain	1
Ohio	27	Idaho	2	Botswana	1
Oregon	25	Montana	2	Bulgaria	1
Illinois	23	Oklahoma	2	China	1
Maine	23	South Carolina	2	Colombia	1
Michigan	22	Arkansas	1	Guatemala	1
North Carolina	22	Louisiana	1	Indonesia	1
Georgia	21	Mississippi	1	Italy	1
Delaware	20	Nebraska	1	Korea	1
Texas	19	North Dakota	1	Malaysia	1
District of Columbia	17	South Dakota	1	Mauritius	1
Minnesota	17	Wyoming	1	Nepal	1
Vermont	16	Total U.S.A.	1289	Netherlands	1
Colorado	13	Canada	6	Nigeria	1
Kentucky	13	Turkey	6	Scotland	1
Wisconsin	12	Ghana	6	Singapore	1
New Mexico	11	India	5	South Africa	1
Missouri	9	Japan	4	Spain	1
New Hampshire	9	Brazil	3	Thailand	1
Indiana	8	France	3	Trinidad	1
Tennessee	8	Germany	3	Uganda	1
Iowa	7	Saudi Arabia	3	Ukraine	
Utah	6	Hong Kong	2	Total from Abroad	81
Alaska	4	Jamaica	2	GRAND TOTAL	1370

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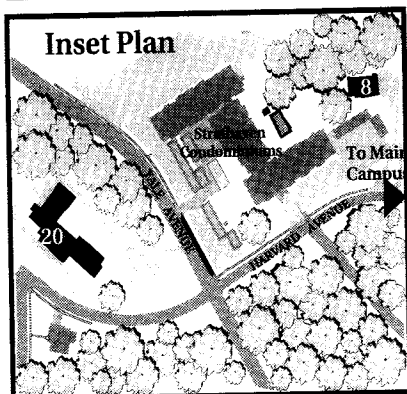
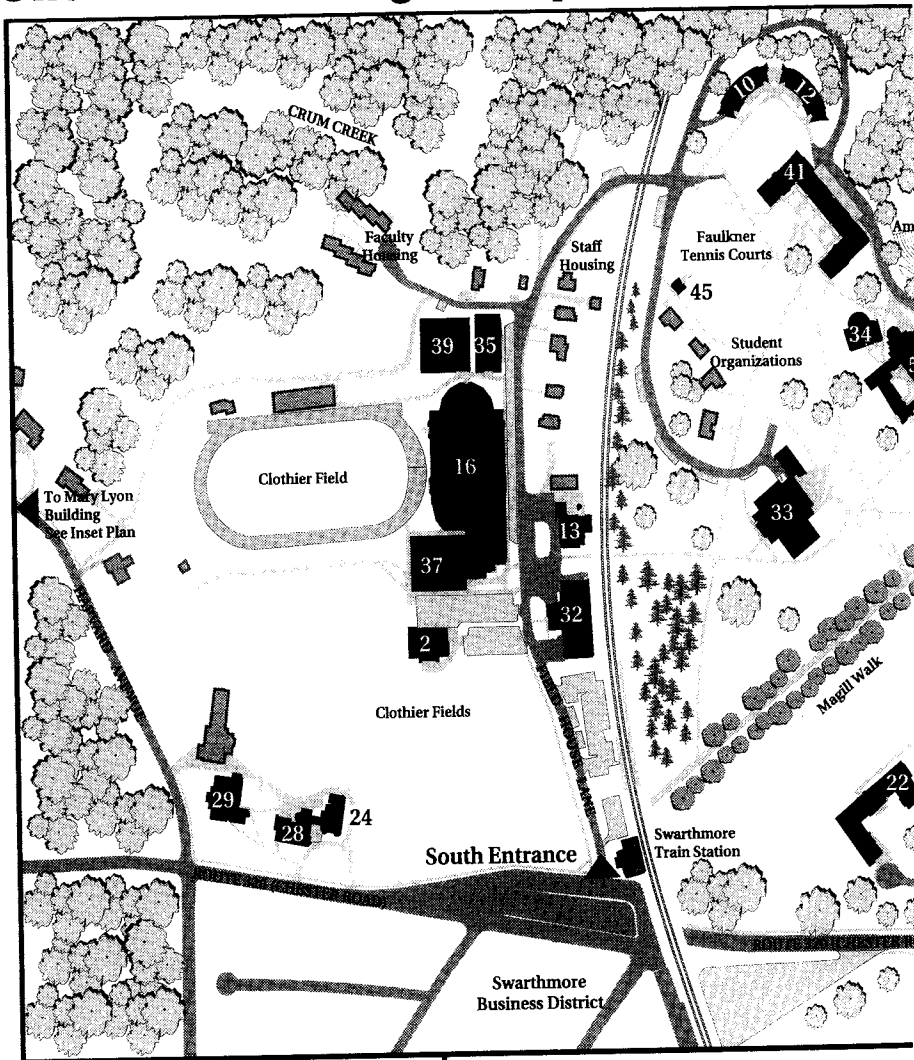
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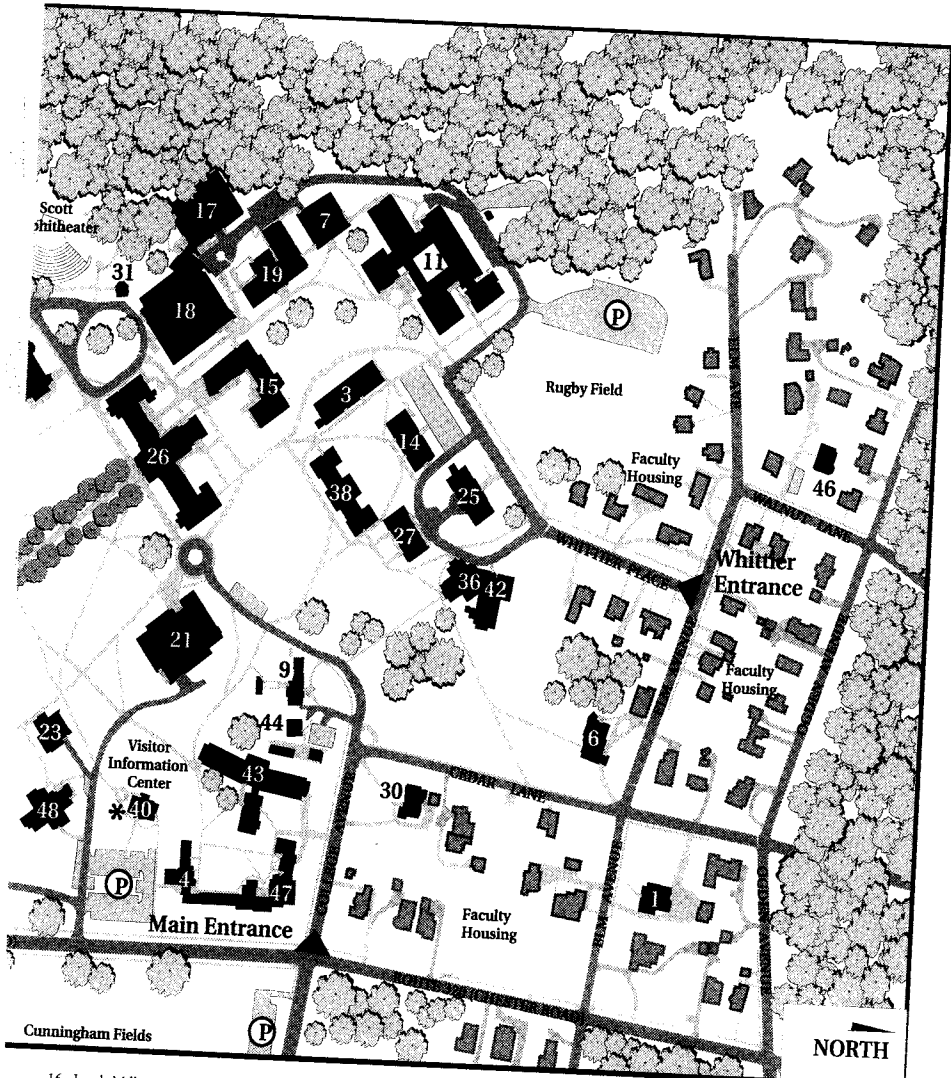
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Notes

Swarthmore College Campus Map



1. Ashton House - College guest house
2. Barn
3. Beardsley Hall - Art history, studio art, Computing Center
4. Bond and Lodges - Student residence and meeting rooms
5. Clothier Memorial Hall - Table Social Center, snack bar, student offices, bookstore, Intercultural Center
6. Courtney Smith House (President's House)
7. Cornell Science & Engineering Library
8. Cratsley House - College guest house
9. Cunningham House - Scott Arboretum offices and Terry Shane Teaching Garden
10. Dana Hall - Student residence
11. DuPont Science Building - Chemistry, mathematics, physics and astronomy
12. Hallowell Hall - Student residence
13. Heating Plant
14. Hicks Hall - Engineering
15. Kohlberg Hall - Economics, modern languages and literatures, sociology and anthropology, Language Resource Center, Scheuer Room, Corddry Wing, Credit Union



- 16. Lamb-Miller Field House
- 17. Lang Music Building – Music, Underhill Music Library
- 18. Eugene M. and Theresa Lang Performing Arts Center – Theatre, dance, English
- 19. Martin Building & Animal Laboratory – Biology, Kirby Lecture Hall
- 20. Mary Lyon Building – Student residence
- 21. McCabe Library
- 22. Mertz Hall – Student residence
- 23. Old Tarble
- 24. Palmer Hall – Student residence
- 25. Papazian Hall – Philosophy, psychology, engineering laboratory
- 26. Parrish Hall – Admissions Office, administration offices, student residence
- 27. Pearson Hall – Education, linguistics, religion, faculty offices, Human Resources, Foreign Study Office
- 28. Pittrenger Hall – Student residence
- 29. Roberts Hall – Student residence
- 30. Robinson Hall – Black Cultural Center
- 31. Scott Map Building – Relief map of campus
- 32. Service Building – Maintenance, grounds and environmental services
- 33. Sharples Dining Hall
- 34. Sproul Observatory – Astronomy and computer science
- 35. Squash Court Building
- 36. Swarthmore Friends Meeting House
- 37. Tarble Pavilion – Physical education
- 38. Trotter Hall – Political science, history, Classics
- 39. Ware Pool
- 40. Benjamin West House – Visitor information, public safety, communications
- 41. Wharton Hall – Student residence
- 42. Whittier House
- 43. Willets Hall – Student residence
- 44. Wister Greenhouse
- 45. Women's Resource Center
- 46. Woolman House – Student residence
- 47. Worth Hall – Student residence
- 48. Worth Health Center

Directions for Reaching Swarthmore College

DRIVING

From Pennsylvania Turnpike, going East

From Exit 24 (Valley Forge) take I-76 East (Schuylkill Expressway) about 2½ miles to I-476 South. Take I-476 approx. 13 miles to Exit 2, Media/Swarthmore. At bottom of exit ramp, follow sign for Swarthmore by turning left onto Baltimore Pike. (See below for “. . . the rest of the way.”)

From Pennsylvania Turnpike, going West

From Exit 25A (Norristown) follow signs for I-476 South. Stay on I-476 approx. 17 miles to Exit 2, Swarthmore/Media. At bottom of exit ramp, follow sign for Swarthmore by turning left onto Baltimore Pike. (See below for “. . . the rest of the way.”)

From the New Jersey Turnpike

Take Exit 6 (PA Turnpike) and proceed as directed above “From Pennsylvania Turnpike, going West.”

From the South

Traveling north on I-95, pass the Chester exits and continue to Exit 7, I-476 North/Plymouth Meeting. Take I-476 to Exit 2, Media/Swarthmore. At bottom of exit ramp, follow sign for Swarthmore by turning right onto Baltimore Pike. (See below for “. . . the rest of the way.”)

“. . . the rest of the way”

Stay in right lane and in less than ¼ mile turn right onto Route 320 South (watch turns on Route 320). Proceed through second light at College Avenue to the first driveway on your right to visitor parking at the Benjamin West House. The Benjamin West House is the College's visitor center and has someone there to hand out maps and directions 24 hours.

TRAIN

The College is readily accessible from Philadelphia by train. Amtrak trains from New York and Washington arrive hourly at Philadelphia's 30th Street Station. From 30th Street Station, the SEPTA Media Local (R3) takes 21 minutes to reach the campus.

AIR

An express train runs from the airport to 30th Street Station where you can take the SEPTA Media Local (R3) train directly to the Swarthmore campus. The combined fare is about \$8.00, and the trip requires about one hour. Taxi service is also available. The fare is approximately \$20.00, and the trip requires about 20 minutes. By car from the airport, take I-95 South to Exit 7, I-476 North/Plymouth Meeting. Take I-476 North to Exit 2, Media/Swarthmore. At bottom of exit ramp, follow sign for Swarthmore by turning right onto Baltimore Pike. (See above for “. . . rest of the way.”)

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