

# Colby



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## Colby College Catalogue 1988 - 1989

Colby College

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# Colby College Catalogue



1988-1989

# Colby College Catalogue

SEPTEMBER 1988-1989

Waterville, Maine

## 2 INQUIRIES

**Inquiries to the College should be directed as follows:**

**Academic Counseling** MARK R. SERDJENIAN, *Associate Dean of Students*, 872-3106

**Admission** PARKER J. BEVERAGE, *Dean of Admissions and Financial Aid*, 872-3168

**Adult Education and Summer Programs** ROBERT H. KANY, *Director of Division of Special Programs*, 872-3385

**Business Matters** ROBERT ST. PIERRE, *Controller*, 872-3159

**Grants, Loans, and Student Employment** LUCIA SMYTH, *Director of Financial Aid*, 872-3379

**Health and Medical Care** CARL E. NELSON, *Director of Health Services*, 872-3398

**Public Affairs** EDWARD HERSHEY, *Director of Public Affairs*, 872-3226

**Records and Transcripts** GEORGE L. COLEMAN II, *Registrar*, 872-3197

**Student Affairs** JANICE SEITZINGER, *Dean of Students*, 872-3103

Mailing address: Colby College, Waterville, Maine 04901.  
Telephone: (207) 872-3000.

A booklet, *Colby Perspective*, with illustrative material, has been prepared for prospective students and may be obtained from the dean of admissions.

Colby College is accredited by the New England Association of Schools and Colleges. Membership in the association indicates that the institution has been carefully evaluated and found to meet standards agreed upon by qualified educators.

Colby College is a private, coeducational liberal arts college that admits students and makes personnel decisions on the basis of the individual's qualifications to contribute to Colby's educational objectives and institutional needs. The principle of not discriminating on the basis of race, color, sex, sexual orientation, religion, age, parental or marital status, national or ethnic origin, political beliefs, or disability unrelated to job or course of study requirements is consistent with the mission of a liberal arts college and the law. Colby is an affirmative action/equal opportunity employer and operates in accordance with federal and state laws regarding nondiscrimination.

The College reserves the right in its sole judgment to make changes of any nature in its program, calendar, academic schedule, fees, deposits, or any other matters in this catalogue.

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# Colby

Chartered in 1813, Colby is an independent non-sectarian college of liberal arts for men and women. It is the twelfth oldest college of its kind in the country and the fifth oldest college in New England. In 1871 Colby became the first previously all-male college to become coeducational. Colby has a faculty of about 160 full-time and part-time members and an undergraduate body of approximately 1,760 students who earn the bachelor of arts degree.

Colby is committed to the belief that the best preparation for life, and especially for the professions that require specialized study, is a broad acquaintance with human knowledge rather than narrowly concentrated training in limited areas. The College accepts the Socratic principle that "an unexamined life is not worth living," and endeavors to nurture the excitement that accompanies the discovery of ideas and values as they are inherited from the past, as they are perceived in the present, and as they may be developed in the future.

The Colby experience is designed to free each student to find and fulfill his or her unique potential. In the process, it is hoped that students will become: more tolerant of diversity and more compassionate toward others; capable of distinguishing fact from opinion; intellectually curious and aesthetically aware; adept at synthesis as well as analysis; broadly educated with depth in some areas; proficient in writing and speaking English; understanding a foreign language and cultures; able to create and enjoy opportunities for lifelong learning; willing to assume leadership roles as students and citizens; prepared to respond flexibly and successfully to the changing demands of the world of work; useful to society and happy with themselves.

Education is a continual process, carried on outside the classroom as well as within. Close faculty and student relationships, based upon genuine interest in and concern for others, are basic to college life and help to personalize and humanize the educational experiences. To that end the College stands for diversity, without which we become parochial; for tolerance of various lifestyles and beliefs, without which we become mean-spirited; and for the protection of every individual against discrimination. In the classroom and outside, there is freedom to study, to think and to learn in an environment that insists upon the free and open exchange of ideas and views.

## Presidents

1818-1833	JEREMIAH CHAPLIN
1833-1836	RUFUS BABCOCK
1836-1839	ROBERT EVERETT PATTISON
1841-1843	ELIPHAZ FAY
1843-1853	DAVID NEWTON SHIELDON
1854-1857	ROBERT EVERETT PATTISON
1857-1873	JAMES TIFT CHAMPLIN
1873-1882	HENRY EPHRAIM ROBINS
1882-1889	GEORGE DANA BOARDMAN PEPPER
1889-1892	ALBION WOODBURY SMALL
1892-1895	BENIAH LONGLEY WHITMAN
1896-1901	NATHANIEL BUTLER, JR.
1901-1908	CHARLES LINCOLN WHITE

1908-1927	ARTHUR JEREMIAH ROBERTS
1929-1942	FRANKLIN WINSLOW JOHNSON
1942-1960	JULIUS SEELYE BIXLER
1960-1979	ROBERT EDWARD LEE STRIDER II
1979-	WILLIAM R. COTTER

**Accreditation and Memberships** Accredited by New England Association of Schools and Colleges and American Chemical Society. Member of The College Board, College Scholarship Service, Association of American Colleges, American Council on Education, National Association of Independent Colleges and Universities, New England Board of Higher Education, Associated Colleges of New England, Council for the Advancement and Support of Education, American Library Association, New England Library Network, Center for African and Afro-American Studies, New England Regional Conference of the National Council for Black Studies, American Institute of Indian Studies, and American Studies Association. Corporate member of American Association of University Women; chapter of American Association of University Professors; New England Small College Athletic Conference. Colby chapter of Phi Beta Kappa founded in 1895.



# The Commons Plan

In January 1984 the trustees approved a complete reorganization of residential life on the campus. In the fall of 1984, Colby created four distinct small communities or "commons," each with its own dining facility and governing unit.

The Commons Plan offers a number of advantages to students. Housing of all kinds throughout the campus is available on an equal basis to all students, and students play a greater role in the control and governance of the public spaces within the commons, including the dining halls. Out-of-class faculty-student interaction is enhanced and opportunities for the development and expression of individual student leadership come from involvement with the governing bodies and from organizing intellectual and social activities within the commons.

Students may reside within the same residence hall and commons for more than one year, so that friendships can more easily be formed and sustained throughout the college years and afterward.

A new student center serves as a focus for the Commons Plan and as a forum for campus-wide social and cultural activities.

Lovejoy Commons is named for Elijah Parish Lovejoy, a graduate of the class of 1826, who became America's first martyr for the free press when he was killed by a pro-slavery mob in Alton, Illinois, in 1837. Lovejoy Commons includes Dana Hall and the residence halls of the Hillside Complex and The Heights.

Chaplin Commons, named for Jeremiah Chaplin, Colby's founder and first president who served from 1818 to 1833, is comprised of Averill Hall, West Quad, and Grossman, Treworgy, Pierce, and Perkins-Wilson residence halls.

Johnson Commons is named for Franklin Winslow Johnson, Colby's fifteenth president (1929-42), who inspired the College's move to the Mayflower Hill campus. This commons includes Johnson Hall, East Quad, and the residence halls of Piper, Drummond, and Goddard-Hodgkins.

Mary Low Commons is named in honor of Colby's first woman graduate from the class of 1875. Included in this commons are the residence halls of Foss, Woodman, Coburn, and Mary Low.

# Campus Life

**Art** The Bixler Art and Music Center is the focal point for the College's art program. Continuous exhibitions of works selected from the permanent collection, as well as original and traveling shows, are to be seen in the Jetté Galleries of the Colby Museum of Art. The permanent collection features American and European painting, sculpture, and graphic art. Special collections are the Harold Trowbridge Pulsifer Collection of Winslow Homer Paintings and Drawings, the American Heritage Collection and the American Painters of the Impressionist Period Collection of Edith Kemper Jetté and Ellerton Marcel Jetté, the Helen Warren and Willard Howe Cummings Collection of American Art, the John Marin Collection, the Adelaide Pearson Collection, the Bernat Collection of Oriental Ceramics and Bronzes, the Langenbach-Pepper Collection of Watercolors by Charles Hovey Pepper, the Weiss Collection of Jack Levine Graphics, and the William J. Pollock Collection of American Indian Rugs and Jewelry (Navajo and Zuni).

The Friends of Art at Colby, organized in 1959, make substantial contributions to the overall art program throughout the year.

The Archives of Maine Art, located at the Bixler Center, is a repository of information and documents about artists in Maine from the eighteenth century to the present.

In addition to the studio courses in the regular curriculum, workshops are maintained for extracurricular activities in ceramics, bookbinding, and photography.

The Bixler Center also contains painting and sculpture studios and gallery space for exhibitions in the Museum of Art.

**Intercollegiate Athletics** Athletics for men include varsity teams in football, soccer, basketball, hockey, skiing, lacrosse, golf, baseball, tennis, cross-country, indoor and outdoor track, swimming, and squash. There are reserve varsity teams for men in soccer, basketball, hockey, and lacrosse. Rugby is a club sport for men and women; water polo is a club sport for men. Crew, woodsmen, bicycling, and sailing are also coed club teams.

Varsity teams for women include field hockey, tennis, cross-country, soccer, swimming, ice hockey, basketball, skiing, squash, softball, lacrosse, and indoor and outdoor track. Women's reserve varsity teams compete in field hockey and lacrosse. Volleyball is a club sport for women.

The rules that govern intercollegiate sports are those adopted by the athletic conferences in which Colby holds membership. Colby is a member of the New England Small College Athletic Conference, which also includes Amherst, Bates, Bowdoin, Connecticut College, Hamilton, Middlebury, Trinity, Tufts, Wesleyan, and Williams. The College is also a member of the National Collegiate Athletic Association, the Eastern College Athletic Conference, and the Maine Association of Intercollegiate Athletics for Women.

**Intramurals** Programs in intramurals are on a coeducational basis; each student is free to engage in the activities of his or her choice. Competition is organized in touch football, soccer, basketball, ice hockey, volleyball, frisbee, table tennis, skiing, track, squash, swimming, softball, tennis, cross-country, marathon

run, and basketball free-throw. Teams are divided into independent divisions, with a point system determining winners of each divisional trophy. Participation by all members of the College community is encouraged.

**Lectures** Throughout the year, outstanding scholars, musicians, and artists visit the campus. The Winthrop H. Smith Visiting Scholars Program invites a speaker for two days to lecture, talk in classes, and meet with students and faculty. Through a grant from IBM in 1983, the opportunity is provided to the mathematics, physics, chemistry, and administrative science departments, on a rotating basis, to present a lecture of related interest annually. The Clara M. Southworth Lecture examines subjects in environmental design. The Samuel and Esther Lipman Lectureship is devoted to Jewish studies and contemporary Jewish thought. The annual lecture by the Grossman Professor of Economics delves into current economic issues of significance. The Christian A. Johnson Lectures bring to Colby distinguished economists each year. The Lovejoy Convocation annually honors a member of the newspaper profession "who has contributed to the nation's journalistic achievement." The Kingsley H. Birge Memorial Lecture, established in 1982, seeks to bring to Colby distinguished persons to speak on the human experience, human potential, or humane treatment of human beings. The Spencer Family Fund provides for an annual or biennial lecture on world unity. The Matchette Lecture offers a distinguished speaker in philosophy. The Guy P. Gannett Lectures focus on general subject areas not covered by other established lectures at the College. In addition to these established lectures, speakers are invited to the campus by the Friends of Art at Colby, student organizations, academic departments, and learned societies.

**Music** Musical activities converge in the Bixler Art and Music Center, which contains rehearsal and practice rooms as well as the 400-seat Given Auditorium and an electronic music center, equipped for the production of computer-generated sound and other forms of electronic music. Facilities for musical theater and opera are provided in the Performing Arts Center of Runnals Union, while Lorimer Chapel serves as a concert hall for large-scale choral and orchestral concerts. The Gould Music Shell, placed in a natural bowl on the northeast corner of the campus, is available for outdoor concerts.

Students are invited to participate (with or without academic credit) in the Colby Symphony Orchestra, the Colby College Chorale, Band, Jazz Band, and Collegium Musicum (Early Music Group), all under faculty and staff direction. There are also informal student groups: the Colby Eight, the Colbyettes, and others.

In addition to numerous concerts by department ensembles each year, concerts by visiting artists of international stature are presented by the music department and by the Student Association. Members of the Portland String Quartet, who hold appointments as artists-in-residence at Colby, also give concerts each semester and offer courses in chamber music for general students as well as workshops for advanced string players.

**Performing Arts** Colby offers an interdisciplinary major in performing arts, enriched with courses offered by the departments of art, classics, English, modern languages, and music. In addition, Colby provides courses for non-majors and opportunities for practical experience in all the areas of theatrical production, dance, and music.

The Strider Theater, the Dunn Dance Studio, a small cellar-theater, art studios, and many spaces for musical performance serve as laboratories for the arts and as performance centers. The Strider Theater has a flexible stage, shop, makeup rooms, and rehearsal space. Light and sound booths over the balcony command a full view of the stage.

**Radio Colby** WMHB-FM is a student-operated station with a Class A noncommercial license from the Federal Communications Commission. From studios in Roberts Union, the station broadcasts throughout the day and evening during the academic year.

**Religion** The College supports and encourages an ecumenical ministry on the campus. There are Catholic, Jewish, and Protestant chaplains.

**Student Organizations** More than 60 student organizations are chartered by the College. Academic societies are Phi Beta Kappa, Sigma Delta Pi (Spanish honor society), Chi Epsilon Mu (chemistry), Sigma Pi Sigma (physics), Delta Phi Alpha (German), Pi Sigma Alpha (political science), and Psi Chi (psychology). Student publications include the weekly newspaper, *The Colby Echo*; the yearbook, *The Oracle*; *Pequod*, devoted to art, literature, and photography; *Colby Crossfire* (political newspaper); and *Northeast Undergraduate Review*.

Service organizations are Better Alcohol Responsibility (B.A.R.), Bi-sexual, Gay and Lesbian Society, Colby Emergency Response, Colby Friends (Big Brother, Big Sister), and the Colby Volunteer Center.

Other groups include the American Chemical Society, Bike Club, Chemistry Club, Coalition for Political Awareness, Coffeehouse Association, Colby Dancers, Colby Democrats, Colby International Club, Colby Model United Nations, Colby Outdoor Orientation Trips (COOT), Debate Club, Deutschklub (German club), East Asian Cultural Society, English Handbell Group, French Club, Geology Club, Istari (fantasy literature), Lorimer Chapel Choir, Los Subrosa (Spanish club), Men's and Women's Rugby, Mock Stock Market Club, Off-Campus Society, Outing Club, Photography Club, Pottery Club, Powder and Wig, Republican Club, Rowing Club, Sailing Club, Senior Arts Exhibition, Ski Club, Stu-A Films, Student Alumni Association, Student Arts Committee, Student Organization for Black and Hispanic Unity (SOBHU), Table Tennis Club, WMHB, Winter Activities Association, Women's Group, and Woodsmen's Teams.

Religious organizations are B'nai B'rith Hillel, Chapel Services Group, Colby Christian Fellowship, and the Newman Club.

There are other clubs and societies described under appropriate catalogue headings. In addition, each class acts as an organization, with elected officers, as do the Commons Councils. Organizations and most activities, including film, lecture, and concert series, are funded through the Student Association. Also, students are appointed by the Student Association to serve on College committees.

# The Library

Miller Library has been extensively renovated and enlarged with a new addition that has dramatically increased accommodations for readers, book collections, and staff.

The library furnishes printed and audiovisual material for assigned and recreational reading, reference, research, and independent study. The main building is open from early morning until late at night during the academic year, and mornings and afternoons each weekday in summer. Study areas and a computer room with eight terminals are open 24 hours a day. Miller Library houses the humanities and social science collections, College archives, and special collections.

An open-stack system allows browsing through the collection of more than 400,000 volumes. The library has over 1,900 current periodicals, with strong retrospective runs, and daily newspapers from this country and abroad. Miller Library is a selective depository for United States government documents. In addition, on file are specialized types of material such as microfilms of newspapers, periodicals, and documents, recordings, films, and videotapes. The library is a member of the New England Library Network.

There are two branch libraries. The Bixler Center has the Ambrose Coghill Cramer Room for the library of fine arts and music and has a newly equipped listening facility for 7,000 sound recordings. The science collections are housed in the Allyn-Smith Science Library in the Keyes Building.

Special collections of first editions and manuscripts in Miller Library have achieved international recognition. The Edwin Arlington Robinson Memorial Room, named for the famous Pulitzer Prize-winning Maine poet, contains his books, manuscripts, letters, and memorabilia. The Thomas Hardy Collection is one of the most extensive in the country. Other authors represented in the Robinson Room include A. E. Housman, Sarah Orne Jewett, Kenneth Roberts, Henry James, Willa Cather, John Masefield, William Dean Howells, and Thomas Mann.

The John and Catherine Healy Memorial Room contains the James Augustine Healy Collection of Modern Irish Literature, with numerous inscribed copies, manuscripts, and holograph letters of William Butler Yeats, Sean O'Casey, James Joyce, George Bernard Shaw, and many others. The Healy Collection has 6,000 primary and critical sources representing the Irish Literary Renaissance, 1880-1940.

The Alfred King Chapman Room houses the College archives, which hold over 4,000 manuscript files pertaining to Colby graduates, faculty, and staff dating from 1813 to the present. Also included is an extensive collection of books by Colby graduates and faculty.

**Audiovisual Center** The audiovisual center in the Miller Library provides media services for the College community. In addition to offering the traditional equipment delivery and loan services, the center also produces educational materials and provides instruction in many media-related areas. Audiovisual maintains a full complement of equipment, from overhead projectors to portable video recorders.

# Career Services

Colby's commitment to the liberal arts embraces the firm belief that the breadth and quality of a Colby education should be extended to include an equally broad choice of meaningful and rewarding career opportunities. Located in Roberts Union, the office of career services strives to acquaint students with career options, offers insight into various professions, and assists in preparation for the actual career search. Students, parents, and alumni are invited to visit the office to discuss career concerns, offer suggestions, and avail themselves of the facilities.

The staff works with academic advisers and other members of the faculty and staff to assist undergraduates in the selection of courses and experiential options that best meet each student's individual interests and needs. Students considering careers in medicine, dentistry, law, and business are advised to meet with a member of the professional-preparation committees for each of these areas as early as possible in the freshman year.

The computer room and the career library, which includes extensive information on job-search techniques, current employment openings for permanent and summer positions, internships, and graduate-degree programs, are open weekdays, including evenings, and Sunday afternoons.

Students are encouraged to make an appointment to encounter SIGI PLUS (System of Interactive Guidance), a computer program that provides interest testing and value determination as well as information about hundreds of professions. Workshops and individual counseling on career exploration, résumé writing, and interviewing techniques can be as helpful to the underclassman seeking a summer job or January internship as to the senior seeking a permanent career opening. In addition, a lifetime reference file may be opened at any time, and a newsletter is distributed throughout the campus on a regular basis, listing current activities and programs as well as career-related opportunities.

Specific programs for seniors include a recruitment program, which brings representatives from graduate and professional schools to the campus in the fall and from corporations and government-service organizations in the spring. Consortium programs with other institutions allow for the opportunity to interview with a variety of additional firms and organizations at single locations in Bangor, Portland, Boston, and New York City. Information and applications for the Graduate Record Examinations, Graduate Management Admission Test, Law School Admission Test, National Teachers Examination, and the Foreign Service Examination can be obtained by seniors in the office, and all but the last two are administered at Colby at least once each year.

With the generous support of Colby graduates and parents of current students, a broad network of persons in various professions and widespread geographical locations has been established to assist students and alumni in career exploration. Parents and alumni have agreed to conduct informational interviews, be hosts for on-site visits, sponsor internships for January and the summer, and provide housing for interns and job seekers in their areas. Information on these opportunities can be obtained from the alumni liaison in the office of career services.

# Admission

Colby College admits students as candidates for the degree of Bachelor of Arts. Admission is highly selective, and evaluation is based on data concerning academic achievement and ability, as well as qualities of intellectual promise, interest and excitement in learning, character, and maturity.

The College actively seeks applicants who have special qualities or talents to contribute to the Colby community, as well as those who represent diverse geographical, racial, and economic backgrounds. Such candidates are expected to be within acceptable ranges of academic ability and preparation.

The quality of a candidate's preparation is judged by the academic record, the recommendations of school administrators and teachers, and results of tests administered by The College Board or by the American College Testing Program.

To ensure a common educational base, a minimum of 16 academic preparatory units is strongly recommended, including four in English, at least three in a single foreign language, three in college preparatory mathematics, two in history or social studies, two in laboratory science, and two in other college preparatory electives.

Colby College supports the efforts of secondary school officials and governing bodies to have their schools achieve regional accredited status, in order to provide reliable assurance of the quality of the educational preparation of its applicants for admission.

## Application Schedule

*November 15:* Deadline for filing applications for fall option early decision admission and financial aid. Notification: December 15.

*December 1:* Deadline for filing applications for midyear transfer admission.

*January 1:* Deadline for filing applications for winter option early decision admission and financial aid. Notification: February 1.

*January 15:* Deadline for filing applications for regular admission and financial aid.

*March 15:* Deadline for filing transfer applications and financial aid requests.

*Mid-April:* Notification of action by admissions committee and of financial aid awards to regular freshman applicants.

*May 1:* Accepted regular applicants confirm intention to attend Colby by payment of \$200 advance tuition deposit.

*May 15:* Notification of acceptance and financial aid awards to transfer applicants.

**Interviews** Interviews, though not required, are recommended and are available on campus from May 1 to January 15. Appointments may be scheduled between 8:45 a.m. and 3:55 p.m. on weekdays, and on most Saturday mornings in the fall.

Interviews with alumni can be arranged for students who are unable to visit the campus and who would like additional personal contact and information about the College.

**Campus Visits** A visit to Colby is encouraged. Guides are normally available at the admissions office on weekdays, and tours may be arranged on many Saturday mornings. A list of motels near the campus is available from the admissions office.

High school seniors who wish to spend a night on campus may do so through the

Colby host program. The program operates five days a week (Sunday through Thursday) throughout the academic year, with the exception of examination and vacation periods. Requests for accommodations through the host program should be directed to the admissions office at least two weeks prior to the visits. Accommodations are limited to one night.

For those driving, Colby is located near exit 33 of I-95. Waterville also may be reached by bus or air.

**Tests** Colby requires either The College Board Scholastic Aptitude Test (SAT) and three achievement tests—one of which must be English Composition, with or without essay—or the ACT tests. A foreign language achievement test is recommended for students seeking to fulfill our language requirement by scoring 600 or better. All required tests must be taken no later than January of the senior year. Early decision candidates must take these tests earlier in their senior year or in their junior year. Applicants must request that test results be sent to Colby directly from the appropriate testing agency. Students taking The College Board tests should contact The College Board ATP, P.O. Box 592, Princeton, New Jersey 08540 (or P.O. Box 1025, Berkeley, California 94701, for those living in Montana, Wyoming, Colorado, New Mexico, or points farther west). Students taking ACT tests should make requests to P.O. Box 168, Iowa City, Iowa 52243.

**Advanced Standing** Colby participates in the Advanced Placement Program of The College Board, providing academic credit for students qualified for advanced standing. Those interested take The College Board advanced placement tests and have the results submitted to Colby for evaluation. Students scoring four or five typically receive placement and credit from the College. Scores of three and below are evaluated by the appropriate academic department.

**Early Admission** A small number of students are admitted without completing the senior year of secondary school. This is done only with the recommendation of the secondary school. Considerations of academic and personal maturity are important to the candidate and to the College in earlier-than-usual admission.

**Transfer Students and Veterans** First consideration in admission is for freshmen, but some transfer students are accepted each year. Admission by transfer is open to those with strong academic and personal records from accredited colleges or universities. Transfer application forms may be obtained from the admissions office.

Credits from accredited institutions are generally accepted for courses comparable to ones offered at Colby in which grades of C or better are received. No more than 60 transferable credit hours may be applied toward a Colby degree.

Veterans may request advanced standing consideration for completion of service schools or USAFI courses in advance of matriculation. Credit is not granted for military service or College Level Educational Program tests.

**Health Certificate** Before matriculation, each student must present a Colby College health certificate, which includes a physical examination to be completed and signed by the home physician. Maine State law mandates tetanus, diphtheria (Td) immunization within 10 years, and measles and rubella immunization after 1969 and the first birthday for ALL entrants to post-secondary educational institutions.



In addition, Colby College requires proof of polio and mumps immunization, and a tuberculin test within the last six months. Preregistration cannot be guaranteed unless all required forms are received three weeks prior to registration.

**Nonmatriculated Students** Application to enroll as a nonmatriculated student must be made to the dean of admissions, who has the responsibility for the admission of all students. Registration in individual courses requires the approval of the course instructor, and may be limited; matriculated students have priority in admission to courses with limited enrollments.

All persons seeking to take courses for credit must present evidence that they are qualified to pursue the intended courses, and must pay the established fee. A limited number of gifted Waterville area secondary students may be recommended by their schools to take a course for a nominal administrative charge. Adults from the immediate Waterville area who are not degree candidates may qualify to take courses at one half the usual fee.

Persons wishing to enroll as auditing students must also apply to the dean of admissions, and are referred to the section "Auditing Courses" elsewhere in this catalogue.

**International Students** Colby has traditionally encouraged the enrollment of students from other countries and is actively engaged in programs of international cooperation and exchange.

Applicants to Colby must be able to understand and be understood in English. Oral and writing skills are essential for successful work at Colby. Colby requires the Scholastic Aptitude Test (SAT) and three achievement tests (if the tests are offered in a student's home country). In addition, applicants whose native language is not English and who have attended a school in which the medium of instruction is not English are required to take the Test of English as a Foreign Language (TOEFL). Arrangements may be made to take these examinations in various centers throughout the world by writing to The College Board ATP, P.O. Box 592, Princeton, New Jersey 08540, U.S.A. To ensure that the results are sent promptly to Colby, please use the Colby College Examination Code No. 3280. United States embassies and consular offices can provide pertinent information about these examinations. These offices often have booklets describing the tests, and even have practice tests for your use.

Financial aid for international students is available in limited amounts. Applicants for financial aid should complete the Foreign Student's Financial Aid Application and Declaration Form, which, upon request, is sent with Colby admissions materials. All applications are due in the admissions office, with supporting documents, by January 15.

Colby has, in the dean of students office, an associate dean who is responsible for intercultural activities and who serves as a special adviser to international students.

# Orientation

From the time of admission until they arrive on campus, new students are invited to make use of a "hot line" to the College to get answers to any questions they may have. An on-campus orientation program for freshmen and other students is held just before the beginning of each new semester. The program includes an introduction to the intellectual and social life of the College, meetings with faculty and staff advisers, and placement examinations. Prior to the orientation, freshmen may participate in COOT (Colby Outdoor Orientation Trips), conducted by upperclassmen, faculty, and staff members.

**Placement in Mathematics** A mathematics placement test will be given during the orientation period and scores will be made available prior to registration. The test must be taken by all students who intend to take Mathematics 119, 121, 122, or 123, and will cover material from high school courses typically entitled "Algebra II" and "Precalculus." The purpose of the test is to discover those students who would be well-advised to take (or re-take) precalculus before attempting calculus [it should be noted that precalculus is a non-credit course offered only in January]. Final decision on placement rests with the chairman of the mathematics department.

Freshmen who intend to register for a "no prerequisite course" (Mathematics 111, 112, 115, 117, or 118) need not take the placement test.

Freshmen who intend to register for Mathematics 231 or 253 should consult with their advisers and with the mathematics department chairman. They need not take the placement test.

**Placement in Foreign Languages** The College language requirement for 1988-89 is met at entrance by a score of 60 or more on The College Board language achievement test.

Students wishing to continue the study of a foreign language at Colby are encouraged to take The College Board achievement test in that language. The results are used to place the student at the appropriate level. If a student has not taken The College Board test and wishes to continue studying a language, he or she will be placed on the basis of a placement exam given during freshman week. Students whose College Board scores are more than a year old at the time of registration are also required to take the Colby placement exam.

Students who have had two or more years of language study may enroll in the first-semester course of that language only if the department of modern foreign languages determines, on the basis of The College Board test or Colby's placement test, that their preparation is not adequate for a more advanced level. Please note that French 125 is designed for students with no previous study of French.

Placement for students who have scored 60 or above on The College Board language achievement test is done by consultation with the department.

# Student Fees

## Annual Basic Charges 1988-89

	<i>Sem. I</i>	<i>Sem. II</i>	<i>Total</i>
Tuition	\$6,020	\$6,020	\$12,040
Board	1,100	1,100	2,200
Room	1,165	1,165	2,330
General Fee	<u>290</u>	<u>290</u>	<u>580</u>
	\$8,575	\$8,575	\$17,150

## Calendar of Payments 1988-89

	<i>On Campus</i>	<i>Off Campus</i>
<i>Upon Acceptance for Admission:</i> Admission deposit—new students only.	\$200	\$200
<i>April 1:</i> Attendance deposit for first semester—returning students only.	\$200	\$200
<i>August 1:</i> One half of annual basic charges, less admission or attendance deposit.	\$8,375	\$6,110
<i>November 1:</i> Attendance deposit for second semester—returning students only.	\$200	\$200
<i>January 1:</i> One half of annual basic charges, less admission or attendance deposit.	\$8,375	\$6,110

## Deposits

*Admission Deposit for All New Students:* A nonrefundable deposit of \$200 is due on or before the date of confirmation of intention to attend. This deposit is credited against the charges for the student's initial semester of enrollment and will be forfeited if the student does not enroll.

*Attendance Deposits:* Returning students are required to pay a \$200 attendance deposit prior to each semester. The first semester deposit is due April 1 and is nonrefundable after July 1. The second semester deposit is due November 1 and is immediately nonrefundable. The attendance deposit is credited against the charges for the respective semester. For a student who does not enroll, the deposit will be held as a credit for one year, after which it will be forfeited. A student who does not pay an attendance deposit by the due date will not be permitted to select housing or preregister for courses for the coming semester. The admission deposit satisfies this requirement for new students.

## Basic Charges

*Tuition:* All matriculating students are required to enroll for at least nine credit hours each semester at the basic tuition rate of \$6,020 per semester. Exceptions are made by the dean of admissions in the case of non-traditional students and by the dean of students in certain cases of regular students with extenuating circumstances which prohibit them from carrying a normal course load. In these exceptional cases, students may be charged on a credit hour basis at the rate of \$460 per credit hour.

With permission of the dean of students, seniors needing fewer than nine hours in their final semester may take only that number of credit hours necessary to meet their graduation requirement. In such cases, however, the full basic tuition of \$6,020 per semester will be charged.

*Board:* The College offers a single board plan of 21 meals per week, required of all students living on campus, and is also available to off-campus students.

*Room:* Students are expected to occupy College housing facilities to the full extent of their availability. Other arrangements may be made only with specific approval of the dean of students. Residence hall reservations are made through the office of the dean of students.

*General Fee:* The general fee is charged to all matriculating students except those in the non-residential degree program. Included in the general fee is an allocation for the Student Association and funding of College health services. There are no additional fees for staff services in the student health center or for the student health-insurance plan that the College provides as part of its health-services package to all students who pay the general fee.

### **Miscellaneous Charges**

*Applied Music:* A student receiving musical instruction under the applied-music program is charged a fee of \$126 for a one-credit course and \$210 for a two-credit course. Music majors will be exempt from this charge.

*January Program:* A January program that requires extensive travel, special materials, or highly specialized outside instruction carries a fee calculated to reflect the costs of the individual program. Such fees are published annually in the January program brochure.

*Colby in Caen/Colby in Salamanca/Colby in Cork:* In lieu of the regular charges for tuition, room, board, and general fee, annual fees of \$12,000 are charged for these programs. Because of the nature of these programs, separate deadlines and deposits apply. Details are available in the Colby in Caen, Colby in Salamanca, and Colby in Cork brochures.

*Cuernavaca/Dijon/Lübeck/London Semesters:* For students participating in one of these programs, the regular basic charges of \$8,575 per semester apply. Further information is available from the admissions office.

*Fines:* Fines are charged to a student's account for: failure to register automobiles, parking violations, late return of library books, checks returned as uncollectible, and for disciplinary actions.

*Damage to or Loss of College Property:* Liability for damage or loss of College property located within individual residence hall rooms lies with the resident(s) of the room. When damage or loss of College property occurs in residence hall common areas (e.g., lounges, hallways, lobbies, bathrooms), Residential Life will make every effort to identify the individuals responsible and to bill them. In cases where Residential Life determines that responsibility lies with the residents of a specific section of a residence hall, those students will be billed. When the individuals responsible for damage or loss of College property cannot be identified, the cost of repair or replacement is accumulated by the residence hall. At the end of each semester, Residential Life, in cooperation with the Physical Plant Department, determines the cost of all unidentified damage and loss of College property and bills the residents of each residence hall on a pro rata basis. Any conflicts regarding assignment of responsibility may be directed to the Judicial Board.

**Payment of Bills** Bills for basic charges are normally mailed two to four weeks before they are due. Each student receives a statement of account at registration. Additional statements are furnished monthly, reflecting adjustments and miscellaneous charges.

Before students are permitted to register, accounts must be paid or satisfactory arrangements made with the business office. Deferments are not granted for pending loans or scholarships. It is the student's responsibility to ensure that these matters are resolved prior to registration or to pay the bill in full and then seek a refund when the loan or scholarship is finally disbursed. Payments are applied against charges in the order in which the charges appear on the student's account.

**Late Payment Fees** A late payment fee of 1.5% of an unpaid balance of \$500 or more will be assessed at the first of each month for as long as such a balance remains unpaid. A balance must be 30 days old to be assessed a fee. Assessment dates for September and February will coincide with registration dates rather than the first of those months.

**Loan and Payment Plans** The College makes available a number of loan and payment plans. Those interested in such plans may contact the financial aid office.

**Refunds** In cases of voluntary withdrawal during the period for which a student has been billed, a student may be eligible for a refund of basic charges as follows:

First two weeks of classes .....	80%
Third and fourth weeks of classes .....	60%
Fifth week of classes .....	40%
Sixth week of classes .....	20%
Thereafter .....	0%

A pro rata refund of the basic charges will be made for a student who withdraws upon advice from the College physician. This refund policy applies to the regular academic program on campus and the Cuernavaca, Dijon, Lübeck, and London semesters.

Students who withdraw voluntarily or upon the advice of a physician from the Caen, Cork, or Salamanca programs may be eligible for refunds of the program fees as follows:

First two weeks of the program .....	75%
Third through sixth week of the program .....	50%
Seventh through fourteenth week of the program .....	25%
Thereafter .....	0%

When a student is required to withdraw because of unsatisfactory conduct including academic dishonesty, no refund will be made. A refund will not be made until the withdrawal/leave process established by the dean of students is completed.

A refund of basic charges or program fees will be made to the source of payment in the following order of priority: (1) to federally funded scholarship and loan programs in accordance with the refund regulations pertinent to those programs, (2) to need-based Colby scholarship and student loan programs, (3) to outside scholarship programs, (4) to the student and/or parents.

A refund of raw food costs for the period of the January program is made to a student who has completed the first semester with a board contract and who does not live or eat on campus during the January program. A request for this refund must be made in the business office by the end of the first semester. The refund will be credited to the student's account at the beginning of the second semester. No other refunds are made for students who elect not to do an on-campus January program.

# Financial Aid

Colby offers financial aid to admitted students who demonstrate need as well as academic and personal promise. In order to ensure equal access and opportunity for students from all economic backgrounds, Colby awards over six million dollars annually in grants, loans, and campus employment to approximately 600 students, or 35 percent of the enrollment. The average aid package in 1987-88 was approximately \$10,300. These awards include the full range of federal and state financial aid programs, including Pell Grants, Supplemental Grants (SEOG), Perkins Loans (formerly National Direct Student Loans), College Work-Study, and Guaranteed Student Loans.

As a member institution of the College Scholarship Service (CSS), Colby requires all aid applicants to submit the Financial Aid Form (FAF) to the CSS, Princeton, New Jersey, before February 1. On the basis of this form, parents' and students' tax returns, and the Colby aid application, the College determines need within the context of Colby policy and federal regulations.

Early decision applicants for financial aid must file both an institutional application and the Early Version of the FAF before November 1 for Round 1 Early Decision candidates and before January 1 for Round 2 Early Decision candidates.

To provide flexibility, Colby also offers its own parent loan program and accepts a variety of outside payment plans. Colby parent loans (PLP) of up to \$15,000 are available at a fixed interest rate of 10.75 percent.

Students who seek more detailed information may write for the pamphlets "Financial Aid and Financing Options at Colby College" and "Applying for a Colby Education" or contact the director of financial aid.

As stated more fully in the section on "Academic Procedures" in this catalogue, the Committee on Academic Standing reviews the records of all students at the end of each semester to determine if each is maintaining satisfactory academic progress. Decisions of this committee determine eligibility for financial aid as defined by federal regulations.

Committee decisions of dismissal may be appealed. When students have been readmitted after academic dismissal, federal Title IV assistance (to a maximum of ten semesters) will be awarded on a funds-available basis according to Colby's published funding priorities for financial aid. All standards are in accordance with AACRAO and NASFAA guidelines for self-regulation with respect to satisfactory progress.

# General Regulations

All students are responsible for knowledge of the regulations in the *Student Handbook* and in the annual catalogue. The handbook covers academic, administrative, and social regulations.

The College reserves the right to dismiss any student whose presence its officers believe to be detrimental to its general welfare.

Although authority regarding discipline is the ultimate responsibility of the dean of students, most cases requiring discipline of students are turned over by the dean to a judicial board comprised of students and faculty. The regulations of the board and the rights of students appearing before the board are described in the *Student Handbook*.

**Attendance** Although students are expected to attend classes regularly, each student is permitted two absences from each course in any given semester. Work missed by such absence is the student's responsibility. If the instructor deems it necessary, persistent student absence from class will be reported to the dean of students, and dismissal from the course without credit may result.

**Behavior** The administrative officers of the College have a responsibility for maintaining and encouraging an atmosphere on campus consonant with the College's function as a community of students and teachers.

The trustees have delegated to various sectors of the College, including the Student Association and the commons, extensive autonomy in the conduct of student affairs. Students retain the right to organize their own personal lives and behavior within the standards agreed upon by the College community, so long as they do not interfere with the rights of others or with the educational process.

Colby is committed to maintaining a community in which persons of all ethnic groups, religious affiliations, and nationalities are welcome. The College will not tolerate racism, harassment, including sexual harassment, or intimidation of any kind; any student found guilty of such actions or of interfering with these goals will be subject to civil prosecution as well as suspension or expulsion from Colby.

Effective Commencement 1984, the College withdrew its recognition and support of its social fraternities and sororities and the trustees mandated that no rushing, pledging, or initiating of new members of fraternities or sororities would be permitted after January 1984. Students who pledge, or who invite pledging in, or who perpetuate any fraternity or sorority will be subject to disciplinary action that could include suspension or expulsion.

The College has always encouraged responsibility in the use of alcoholic beverages. Moreover, federal and state laws concerning alcohol and drugs must be observed. State of Maine laws forbid possession of alcohol by underaged persons. Abuse of drugs or alcohol that leads to disruptive behavior may result in dismissal. Students found guilty of misconduct off campus are subject to Colby sanctions as well as civil law prosecution.

**Health Policy** Physicians in the Colby College health services treat students on the same basis as community physicians treat the patients under their care.

The College feels that the best interests of students are served by having full medical counseling and treatment from physicians thoroughly informed about personal medical history.

The College respects the rights of these physicians to use their professional judgment in meeting the health needs of students.

Upon recommendation of the College physician, the College reserves the right to require a student to withdraw for medical reasons. If, in the doctor's opinion, a student becomes unable to carry on normal student functions, or when his presence is or may become a hazard to himself or others, withdrawal will be required. Following any medical withdrawal, a recommendation from the student's physician to the College physician is required before the student is readmitted to the College.

The officers, faculty, and medical staff of the College reserve the right to refuse to divulge information regarding a student's psychological or psychiatric condition or matters of an intimate nature without the student's authorization.

**Housing and Student Living** Students are housed in four Residential Commons, accommodating between 300-500 students each. Individual residence hall sizes range from 30 to 200 students per building. All class years are housed in each building.

Except for some area students who may live at home with the permission of the College, all freshmen are required to live in College housing as assigned by the dean of students office. Resident students are required to subscribe to the on-campus board plan. The College has charge of the maintenance and security of its buildings. A limited number of upperclass students are permitted to live off campus, with permission from the dean of students.

**Student Records** Colby complies with the Family Educational Rights and Privacy Act of 1974, which establishes the right of students to inspect and review their education records and provides guidelines for the correction of inaccurate or misleading data. Complete guidelines used by the College for compliance with the act are printed in the *Student Handbook* and may be obtained at the dean of students office.



# Academic Program

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# Academic Requirements

**Graduation Requirements** To qualify for the degree of Bachelor of Arts, a candidate must meet specific requirements in residence, quantity, quality, distribution, major, and January Program. Only those seniors who have met all graduation requirements are eligible to participate in the commencement exercises. The following statements define the graduation requirements.

**Residence Requirements** Candidates for the degree must earn in residence at least 60 credit hours. They must be resident students at Colby for at least four semesters, including the senior year. A resident student is defined as a full-time student taking at least 12 credit hours and paying tuition charges at the semester rate.

Credits earned at another institution while concurrently registered at Colby may not be applied toward graduation requirements.

**Quantity Requirements** A minimum of 120 semester credit hours. For students entering Colby in September 1986 and later: A minimum of 120 credit hours earned in at least eight semesters of full-time college-level study.

**Credit Requirements** Among the 120 credit hours required for graduation, up to 15 may be earned in courses taken on a pass/fail basis, and up to 15 may be field experience credits.

**Quality Requirements** A 2.0 cumulative grade point average.

For each credit hour, a mark of:

A earns four points.

B earns three points.

C earns two points.

D earns one point.

Each *plus* mark earned is:

.3 quality point per credit hour added.

Each *minus* mark is:

.3 quality point per credit hour deducted.

**Distribution Requirements**

No part of any requirement can be satisfied with pass/fail or field experience credits.

**All-College Requirements**

*English Composition and Literature*: English 115 and 152. For freshmen entering Colby in September 1986: English 115. For freshmen entering in 1987 and 1988: English 115 and a freshman seminar.

*Foreign Language (modern or ancient)*: This requirement may be met in one of three ways:

(1) By attaining before entrance a score of 600 in a College Board foreign language achievement test.

(2) By successfully completing Colby's intensive language program in Cuernavaca, Mexico; Dijon, France; or Lübeck, West Germany. Open to freshmen, the programs in Cuernavaca and Dijon are offered in the fall semester, the Lübeck program in the spring semester.

(3) By successfully completing a sequence of modern or classical language courses terminating with a course numbered above 126 in a modern language, or Greek 131

or Latin 131. Students will be placed in the sequence according to ability. (Students who entered Colby prior to September 1986 are subject to requirements in effect at the time of entrance.)

Transfer students who have studied a foreign language not taught at Colby may fulfill the requirement by presenting evidence of having completed at an accredited institution the intermediate level of that language.

For foreign students whose native language is not English, knowledge of that language will be recognized as fulfilling the requirement. Confirmation from the chairman of the department of modern foreign languages must be filed with the office of the registrar. In certain cases, testing by the department may be required.

#### **Division Requirements**

A minimum of six credit hours in each of the divisions of humanities, social sciences, and natural sciences. Three of the credit hours in the natural sciences must involve laboratory experience in appropriate courses in astronomy, biology, chemistry, geology, or physics. No division requirements may be met by field experience or courses taken pass/fail.

*Division of Humanities* (Chairman, PROFESSOR EDWIN J. KENNEY):

American Studies 271, 274

Art

Classics (except Ancient History)

English (except 111, 112, and 115; 152 may be applied as a humanity for freshmen entering Colby in September 1986 and later)

Greek

Latin

Modern Foreign Languages (above the intermediate level)

Music

Performing Arts

Philosophy 372

Religion (all courses except 118)

*Division of Social Sciences* (Chairman, PROFESSOR THOMAS R. W. LONGSTAFF):

Administrative Science

Ancient History

Anthropology

East Asian Studies 151, 152

Economics

Education

Government

History

Philosophy (all courses except 372)

Psychology

Religion 118

Sociology

*Division of Natural Sciences* (Chairman, PROFESSOR ROGER N. METZ):

Astronomy

Biology

Chemistry

Computer Science (non-laboratory science)

Geology

Mathematics (non-laboratory science)

Physics

Quantitative Analysis (non-laboratory science)

*Division of Physical Education* (Chairman, ADJUNCT ASSOCIATE PROFESSOR RICHARD L. WHITMORE):

One year of physical education is required for graduation.

**Major Requirement** Near the end of the freshman year, each student elects a tentative major. The major may be chosen in a single subject, in one of a number of designated combinations, or in an individually designed independent major. Students are encouraged to reexamine their choices of major during the sophomore year.

The respective academic departments and programs specify the courses constituting a major in each department or program. Before selecting a major, the student should read thoroughly the requirements detailed in the section "Courses of Study."

With the consent of the departments or programs concerned, a student may change majors. Forms for officially effecting such change can be obtained from the registrar's office.

Any student whose major average falls below 2.0 has lost the right to continue with that major. A student who has thus lost the major may, with the consent of the department or program concerned, be accepted or retained for one semester as a probationary major. No student other than a freshman may continue at the College without good standing in a major. Each department or program designates the courses to be calculated in the major average.

A student may change majors at the end of the junior year if the equivalent of at least 12 credit hours, with a 2.0 average, has been earned in the new major. If, in the senior year, the average in courses completed toward the major falls below 2.0, the major requirement is not fulfilled, and the degree cannot be awarded.

**Majors Offered** The College offers majors in the following disciplines:

Administrative Science	Government
Art	History
Biology	Mathematics
Chemistry	Music
Classics	Philosophy
Economics	Physics
English	Psychology
French	Religion
Geology	Sociology
German	Spanish

**Options** Specific options are available within the majors in chemistry, geology, and mathematics.

**Combined Majors** Majors are offered in the following combined areas:

Administrative Science-	Geology-Biology
Quantitative Methods	Geology-Chemistry
Classics-English	Geophysics
Classics-Philosophy	Philosophy-Mathematics
Economics-Mathematics	Philosophy-Religion

**Interdepartmental Majors** Interdisciplinary majors are offered in the following areas:

American Studies	Performing Arts
East Asian Studies	Russian/Soviet Studies

**Concentrations** Independent concentrations, available to supplement a major program, are offered in the following areas:

Administrative Science  
 Anthropology  
 Applied Mathematics  
 Black Studies  
 Creative Writing

Education  
 Public Policy  
 Quantitative Analysis  
 Science and Technology Studies  
 Women's Studies

A concentration in studio art is available in the art department, and computer science is offered by the mathematics department. A concentration in environmental science is available in the departments of biology, chemistry, and geology.

**Requirements for majors and concentrations are outlined in the section "Courses of Study."**

**Independent Majors** A student may design an independent major by a detailed written proposal, prepared with the support of an adviser who agrees to assume responsibility for the program throughout its course. Normally there will be at least one other adviser who will help to shape and direct the program. The program must include integrated course work representing from one quarter to one third of the total credit hours required for graduation and an independent study in the senior year. Implementation requires the written approval of the independent major board, a subcommittee of the independent study committee. An annual report is required from each independent major and adviser, which will include any minor changes in the program; substantial changes, or a change of adviser, must be referred to the board. Inquiries about independent majors should be directed to the chair, Professor Dianne Sadoff.

**January Program Requirement** The January Program, introduced in 1961-62, grew from a desire to extend to students a greater measure of academic responsibility. January is a period during which topics may be pursued single-mindedly, free from the competing demands of an orthodox curriculum. Selected courses, designated with "j," are offered during January; a student may elect one course in lieu of independent study. January courses are offered for two or three credit hours.

Because the January program assures most students considerable flexibility in use of their time, it permits them to participate more fully in extracurricular activities in athletics, drama, music, and other fields. While students are encouraged to attend the lectures, seminars, concerts, and art exhibitions scheduled by the College, they are expected to spend 30 to 40 hours a week on their January program topics.

To be eligible for graduation, each student must complete three January programs if in residence for four or more first semesters, or two if in residence for three or fewer first semesters. Freshmen are required to take January courses offered by the College and are given preference in 100-level programs. Upperclass students have the option of courses, independent study, or field experience.

January program options are:

- (1) *Courses Offered for Credit.* Some are created specifically for January; others, originally designed to be offered during semesters, may be modified for January. Such courses are graded in the same manner as semester courses, except that nongraded January courses will be marked *credit* or *fail*.
- (2) *Independent Study.* This involves an academic project under the direct supervision of a Colby faculty member. Projects ordinarily involve the preparation of an extensive paper or other suitable indication of the student's independent

research or artistic efforts. Two options exist for electing January independent study: (a) for course credit that can be applied toward graduation requirements, to be graded as in (1) above; and (b) for January program credit only, to be graded *honors, pass, or fail*.

(3) *Field Experience and/or Internships*. These projects, open to upperclass students, are usually carried out away from the campus. Though students doing such projects do not work under the direct supervision of a faculty member, their programs require a faculty sponsor. Credits earned through field experience or internship are nongraded and may be applied toward the graduation requirements. Field experience and internships may be elected for January program credit only, to be graded *honors, pass, or fail*.

(4) *Noncredit Courses*. These courses fulfill the January program requirement, but students do not earn course credit that can be applied toward the credit hours required for graduation. These courses may be offered by experts in fields not included in the regular curriculum, and will be graded *honors, pass, or fail*.

Other than the grades indicated above, marks of *Abs* (absent from final examination) or *Inc* (work otherwise incomplete) may be given only in cases where the student has made an acceptable arrangement with the instructor. Grades of *Abs* and *Inc* must be made up within limits set by the instructor and not later than the second day following spring recess.

Registration for the January program takes place in October. Students failing to register by the third day of the January program will be considered to have failed the program for that year, with the failure to be noted on official transcripts. A student choosing not to do a January program in any year must signify this decision on the registration form. Except under unusual circumstances, no more than one January program may be taken each year. Initial registrations, as well as any subsequent changes of January program registrations, must be properly filed at the registrar's office. January program options in field experience and internships must also be approved in advance by the field experience coordinator. Appropriate deadlines for the pass/fail option in January are established each year.

**Exemption by Examination** When appropriate, either all-college or division requirements, as well as certain requirements for the major, may be absolved by examination without course enrollment, at the discretion of the department concerned. Regularly enrolled freshmen and sophomores may earn credit by examination in freshman- or sophomore-level courses to a maximum of 12 hours. Departmental examinations or external examinations approved by the department may be used, with credit given for the equivalent of at least C- level work. The cost of each examination is borne by the student.

**Transferred Credits** Courses taken at other institutions, in which grades of C or higher have been earned, may be credited toward the Colby degree under the conditions and circumstances listed below. In addition to the conditions listed below, restrictions detailed in the section "Graduation Requirements" (q.v.) should be read with care.

(1) When students are admitted by transfer, their records are tentatively evaluated by the registrar to determine the transferable equivalent in Colby courses. These courses are credited subject to confirmation through satisfactory progress at Colby.

(2) College-level courses taken on college campuses by students prior to

matriculation as freshmen are evaluated on the same basis as courses presented by new transfer students.

(3) Credits to be transferred toward a Colby degree by matriculated students, including students dismissed for academic reasons by the committee on standing, must be approved in advance by the appropriate College authority. Courses to be transferred may not be taken on a pass/fail basis. Forms on which to seek approval can be obtained from the following:

- (a) For foreign study: coordinator of foreign study.
- (b) For domestic exchange: associate dean of faculty.
- (c) For all other courses: registrar.

(4) No student may receive transfer credit for more than 14 credit hours taken in summer school for the purpose of making up deficiencies incurred at Colby.

**Requirement for Returning Students** A student returning to college after an absence must meet any new requirements for graduation if fewer than 61 Colby credit hours had been earned prior to the absence. If more than 60 credits had been earned, the student may elect to meet either the new requirements or those in effect at the time of initial enrollment.

**Student's Responsibility** Each student must be aware constantly of progress in meeting requirements for graduation. If there is any question about an individual record, consult the registrar's office. Each student must also be aware of deadlines set within each academic year that pertain to academic actions; these are distributed at each registration as "Critical Dates."

**Academic Honesty** Plagiarism, cheating, and other forms of academic dishonesty are serious offenses. For the first offense, the instructor may dismiss the offender from the course with a mark of *F* and will report the case to the department chair and the dean of students, who may impose other or additional penalties including suspension or expulsion. This report becomes part of the student's confidential file and is destroyed upon graduation. A second offense automatically leads to suspension or expulsion. Students may not withdraw passing from a course in which they have been found guilty of academic dishonesty. A student is entitled to appeal charges of academic dishonesty to the appeals board. The decision of the board shall be final and binding unless overruled by the president of the College who has final authority and responsibility.

Without the explicit, written approval of the instructors involved, registration for two or more courses scheduled to meet concurrently is a form of academic dishonesty.



# Academic Honors

The degree of Bachelor of Arts with honors is awarded in three grades: *summa cum laude* to those who obtain a 3.75 grade point average; *magna cum laude* to those with a 3.50 grade point average; *cum laude* to those with a 3.25 grade point average.

A second category of honors, entitled *distinction in the major*, is awarded to a student on the specific recommendation of the department. To be eligible, the student must have at least an average of 3.25 in the major. The department recommends *distinction in the major* only for those very few students who, in the opinion of the department, merit special recognition.

Honors programs are offered in American studies, chemistry, economics, French, government, history, philosophy and religion, physics, and psychology. Students accepted into these programs and successfully completing the work of the honors program and of the major earn the status of graduating with "Honors in [major]."

In American colleges, it is generally considered that the highest honor an undergraduate can receive is election to Phi Beta Kappa. This society, founded in 1776, restricts its chapters to leading colleges and universities, and maintains high scholastic standards. The Beta Chapter of Maine was organized at Colby in 1895.

Each spring, the College recognizes student achievement with the announcement of various honors and awards. Among those recognized are: members of Phi Beta Kappa; Senior Scholars for the ensuing year; and recipients of Phi Beta Kappa certificates, awarded to members of the three lower classes for distinction in scholarship.

Academic excellence is also recognized at a convocation each fall for the Julius Seelye Bixler and Charles A. Dana scholars. Bixler Scholars are the top-ranking students as determined by the cumulative academic record at the end of the preceding year. Dana Scholars are selected on the basis of a strong academic performance and potential leadership.

The Dean's List, recognizing high academic standing, and announced at the conclusion of each semester, includes the name of every student whose average of all marks in the previous semester has been at least 3.2 for upperclassmen (3.0 for freshmen) in a minimum of 12 credits, exclusive of pass/fail credits. A student with any mark of incomplete is not eligible for Dean's List.

# Academic Programs

**Senior Scholars** This honors program permits a limited number of seniors to devote six credit hours per semester to a project approved by the senior scholars committee and pursued under the guidance of a faculty member. A final report is judged by three faculty readers and, upon successful completion, the senior scholar's report is deposited in the College library. Senior scholars are cited in the commencement exercises. Application must be made during the student's junior year. Inquiries should be directed to the chair, Professor Dianne Sadoff.

**Exchange Programs** Colby participates in student exchange programs with Fisk University in Tennessee, Howard University in Washington, D.C., and Pitzer, Pomona, Scripps, and Claremont McKenna colleges in California. Ordinarily, exchanges are arranged for a single semester of the junior year. Each student pays tuition, board, and room charges at the home institution; travel is at the student's expense. Students may obtain information about exchange programs from the associate dean of faculty.

A course exchange program is in effect with Bates, Bowdoin, and Thomas colleges. Students may obtain information from the registrar.

**Interdisciplinary Studies** Interdisciplinary studies are governed by the Interdisciplinary Studies Council. The council is comprised of the directors of the interdisciplinary programs.

Interdisciplinary studies offer three unique options. These options are the major, the concentration, and the course cluster.

An interdisciplinary studies program that offers a major has put together a highly structured, integrated curriculum involving courses from two or more departments together with those that might be offered by the program itself. Majors in interdisciplinary studies are offered in the following areas:

American Studies

Performing Arts

East Asian Studies

Russian/Soviet Studies

Concentrations involve a coherent program of interdisciplinary studies, including a final integrating experience. Successful completion of a concentration will be noted on a student's transcript. Concentrations are offered in the following areas:

Administrative Science

Education

Anthropology

Public Policy

Applied Mathematics

Quantitative Analysis

Black Studies

Science and Technology Studies

Creative Writing

Women's Studies

A concentration in Environmental Science is available in the departments of biology, chemistry, and geology.

Course clusters are four or more courses, in two or more departments, that share a perspective or subject matter but for which no formal synthesizing experience is provided. Course clusters are offered in Classical Civilization and in Legal Studies.

Information about courses included in each of the above options appears in the section "Courses of Study" under the specific heading.

**Foreign-Language Semesters Abroad** Colby offers the opportunity for incoming freshmen and other students to satisfy the College's language requirement (and

earn a semester's credit) by living abroad and studying the language intensively. Three programs are offered:

*Colby in Cuernavaca:* Now in its seventh year, this program allows students to learn Spanish in Cuernavaca, Mexico. Students reside with families, attend intensive language courses, and have a full schedule of excursions. The program is under the supervision of the resident director, Professor Javier Gonzalez of the department of modern foreign languages, and is offered in the fall semester.

*Colby in Dijon:* This year for the fourth time a group of Colby students will study French intensively in Dijon, France, in a special branch of the University of Dijon and will have a full program of cultural activities and excursions. Students will live with French families. The program, supervised by a resident director, is open to students who have completed the equivalent of one full year of French at Colby or who have a minimum of three years of high school French with emphasis on oral skills. This program is offered in the fall semester. The resident director for 1988-89 is Monique Fecteau of the department of modern foreign languages.

*Colby in Lübeck:* During the spring semester, a program is offered in Lübeck, West Germany. Students live with German families and study the German language intensively. The director of this program is Professor Marlies Black of the department of modern foreign languages. Students who have completed one semester of German or who have a minimum of three years of high school German may apply.

Additional information on these foreign-language semesters may be obtained from the admissions office (for incoming freshmen), the program directors, or the department of modern foreign languages.

**Junior Year Abroad** While students can find at Colby the courses needed for most liberal arts majors, many are attracted by the opportunity to study abroad. Students of modern languages and literatures may want to spend a year in the country whose language they are studying. Art majors may want to study important works of art and architecture at first hand. Government, history, and economics majors may want to study in, as well as about, certain countries. American studies majors may want to gain a different perspective on their studies. Such programs are generally undertaken during part or all of the junior year.

Colby offers its own programs in France, Spain, and Ireland (see "Colby in Caen," "Colby in Salamanca," "Colby in Cork" below). For other programs, the College requires that students attend a recognized foreign university and be fully integrated into that university's program of study. Proposals to study abroad must be approved by the students' major departments and by the Foreign Study Council. This approval must be obtained before the period of study abroad if credit is to be transferred. Students should begin inquiries early in the fall semester to meet application deadlines. The coordinator of foreign study will refer students to faculty members who are area advisers and will assist students with their applications.

Students on financial aid continue to receive that aid if the committee on foreign study approves their programs. For other financial possibilities, students should talk with the director of financial aid.

Some of the programs for foreign study offered by the College or available to Colby students are:

*Colby in Caen:* Colby offers a Junior Year Abroad program, in conjunction with Washington University in St. Louis, at the Université de Caen in France. Following a six-week orientation session in Paris (six credits), students begin

classes in Caen, normally taking eight semester courses (24 credits), at least four of which are selected from a core program consisting of regular university courses supplemented by a weekly class meeting conducted by the course professor for the Colby group alone. In completing their curriculum, students are free to enroll in any course offered in any division of the university. A faculty member from Colby, Professor Arthur Greenspan of the department of modern foreign languages, is in residence in Caen, serving as academic and personal adviser to the students enrolled. Grades, assigned by the resident director after consultation with the faculty at Caen, and in accordance with the College's grading system, appear on students' transcripts as Colby credits.

In addition to group excursions in the Paris area and in the provinces, students are encouraged to take part in French life through contact with host families, work in the Caen public school system, and activities organized by the Comédie de Caen, the Oratorio (Caen's chorale), the École des Beaux Arts, and the Conservatoire de musique.

The program is designed to provide an intensive language experience. All meetings and courses are conducted exclusively in French. Participants live with families or in Université de Caen dormitories and are expected to speak only French while in France.

Further details are available from the department of modern foreign languages. *Colby in Salamanca:* The Colby in Salamanca-Junior Year Abroad program, administered in conjunction with Washington University, integrates academic and cultural components designed to provide an intensive language experience for the motivated student who has a good command of the Spanish language. The formal academic program is comprised of two parts: a four-week orientation program in September and academic course work from October through May at the Universidad de Salamanca.

A faculty member from Colby, Professor Valentina Hernandez of the department of modern foreign languages, serves as resident director. Grades, assigned by the director in consultation with the faculty at Salamanca and in accordance with the College's grading system, appear on students' transcripts as Colby credits.

All meetings and courses are conducted in Spanish; students are expected to speak only Spanish while in Spain. Participants live with families during the orientation period and in apartments with Spanish students during the academic year.

For further information, consult the department of modern foreign languages.

*Colby in Cork:* Colby offers a year-long program for juniors at University College, Cork, one of the three major components of the Irish University system. Students may enroll in any course offered in any division and are fully integrated into the academic and cultural life of the college, which is marked by a strong Gaelic tradition.

A faculty member from Colby, Professor Daniel Cohen of the department of philosophy and religion, is resident director, serving as academic and personal adviser to the students enrolled. Grades, assigned by the director in consultation with the faculty at Cork and in accordance with the Colby grading system, will appear on students' transcripts as Colby credits.

Students live in housing accommodations arranged by the director, generally in apartments near the University. The program extends from mid-September through mid-June.

For further information, consult the coordinator of foreign study.

*Study in Asia:* The Associated Kyoto Program (AKP) is a Junior Year Abroad

program associated with Doshisha University in the ancient capital of Kyoto, Japan. Colby is one of 12 liberal arts colleges that jointly oversee the operations of the program. In Japan, the program is directed by a senior Japanologist drawn from one of the member institutions. Study of the Japanese language is required. In addition to a seminar taught by the director, students have the option to study Japanese culture, history, literature, economics, politics, and religion. Students are also assisted in selecting the appropriate university club for participation in cultural and/or athletic activity. Students are required to live with a Japanese "home-stay" family for the first semester. All credits are transferable to Colby.

Colby is directly involved in the China Cooperative Language Program sponsored by the Council on International Educational Exchange in the People's Republic of China. For information, see the director of East Asian studies.

Colby is a member of the Intercollegiate Sri Lanka Education (ISLE) consortium, which makes possible a semester of study at Kandy, Sri Lanka. The program features courses in the history, language, religion, and culture of Sri Lanka and South Asia, operates from August through November, and carries one semester's course credit for a cost approximately the same as a semester at Colby. Details are available from the department of philosophy and religion.

Two recently established programs provide opportunities for student exchange study in China (contact director of East Asian studies) or in the Soviet Union (contact the department of modern foreign languages).

*Study in the British Isles:* The College has more or less formal arrangements with most British universities, among them the universities of Edinburgh, Glasgow, and St. Andrews in Scotland, and in England the universities of Bristol, Essex, Kent, Reading, Sussex, Warwick, and York, as well as the University College, King's College, Queen Mary College, and the London School of Economics, all parts of the University of London. Information on these and other universities is available from the coordinator of foreign study.

*Study on the Continent of Europe:* In those countries where Colby does not have a program of study, students normally attend through programs conducted by other American universities. Wesleyan and Syracuse University are among those that have programs in Austria, Germany, and Italy. Programs are also available at the Pushkin Institute in Moscow. Information is available from the coordinator of foreign study and from the department of modern foreign languages.

*Study in Canada:* Some students attend the University of Toronto, McGill University, and other Canadian universities through an exchange program administered by the University of Maine at Orono. Details are available from the coordinator of foreign study.

**Other Off-Campus Programs** Another foreign study experience offered by Colby College is the London Program in Theater and Drama. The first semester, open to entering freshmen, includes a course in freshman composition. Both semesters include an option for independent study or field experience in a project focusing on work in British theater. The required core of the program consists of plays currently in production in or near London and a concurrent study of performing and/or production techniques taught by professionals in British theater. Inquiries should be directed to the chairman of the performing arts department.

The Colby in Washington Program is designed to provide an academically rigorous and pedagogically diversified intellectual and cultural experience for Colby students. The program is run in cooperation with The Washington Center, with direct oversight by a Colby faculty member. Students with a variety of

majors take advantage of the program. Each semester, a curriculum consisting of one seminar, a tutorial or independent project, and a 35-hour-per-week internship is offered for 15 credit hours. This program is open to a maximum of 15 students from the junior and sophomore classes. For more information, contact the secretary of the government department.

An opportunity is also provided for a limited number of Colby students in their sophomore and junior years to participate in the various Washington Semester Programs organized by The American University in Washington, D.C. Through these programs, students can obtain first-hand knowledge of the national government as it deals with the crucial problems of foreign policy, economic policy, criminal justice, and urban affairs. For more information, contact the office of career services.

Colby is a member of the West Indies Laboratory College Association. Through this association, qualified students are provided opportunities for a semester of study in marine science or environmental science at the West Indies Laboratory in St. Croix, U.S. Virgin Islands. Lectures and extensive field work, supplemented by laboratory work, are the nucleus of the program at the West Indies Laboratory. This program provides unique opportunities for students to explore the tropical marine environment and to investigate environmental problems. Information about the program can be obtained from the department of biology.

Colby is one of several institutions participating in the Williams College-Mystic Seaport Program in American Maritime Studies, a one-semester program offering courses in American maritime history and literature, marine policy, oceanography, and marine ecology. Twelve days are spent at sea on a sailing vessel. In addition to formal course work, students develop maritime skills (e.g., celestial navigation, boat building, small-boat handling) under professional instruction. The program is accredited through Williams College.

A limited number of students earn transferable credit through participation in the Sea Semester program of academic instruction and practical experience focusing on the oceanic environment. The program consists of both shore and sea components and is sponsored by the Sea Education Association in cooperation with Boston University.

Qualified students may earn academic credit by undertaking off-campus field experiences or internships as participants in approved programs or by obtaining faculty sponsorship of an individual project or course of study. Such field experiences may supplement regular course work while in residence at the College, be done while on leave from the College, or can be completed in January or in the summer. Students must submit appropriate applications or a formal proposal for individual projects to the field experience coordinator in advance of the start of the experience and by the appropriate deadline. Students may earn from one to three credits. In some cases, students earning Colby credits in such programs are charged an administrative fee.

Information on a wide variety of field experience opportunities and application forms for field experience and internships are available in the office of career services.

**Engineering** Colby College, the University of Rochester, and Case Western Reserve University are affiliated in joint programs whereby a student may acquire an education in the liberal arts and also in engineering in a five-year period, with three years spent at Colby and two at either Rochester or Case Western Reserve. On successful completion of the program, the student is awarded a Bachelor of Arts

degree from Colby and a Bachelor of Science in Engineering degree from the chosen university.

While at Colby, the engineering student must attain mastery of the necessary mathematics and science to support an intensive study of engineering that will follow, while gaining a broad grounding in the humanities and social sciences as well. Students graduating in this program are exempt from Colby's senior year in residence requirement, but all other graduation requirements must be met. The chairman of the physics department serves as adviser for this program, and should be consulted early in the student's Colby career.

Another option for the student who plans to be an engineer but also wants a liberal arts college education is a regular physics or chemistry major at Colby, followed by engineering studies in a graduate school.

**Professional Preparation** Many Colby graduates go on to study for advanced degrees in specialized areas of concentration; specific committees of the College are available for professional preparation advice in the following areas:

*Law and Government Service:* The committee on professional preparation for law and government service advises students preparing for careers in these areas. Prelaw students may major in any field, but they will profit from early consultation with committee members on the courses that provide the strongest possible liberal arts background for the study of law.

*Medicine and Dentistry:* Medical schools do not require a particular major but do require high academic standing and the inclusion of biology, chemistry, physics, mathematics, and English in the student's college program. Some medical and dental schools admit applicants after three years, and sometimes after only two years, of college work; however, the leading schools prefer students with a college degree, and have specific requirements in biology, chemistry, physics, and English. The health professions preparation committee provides formal advising and other support from the freshman through the senior year.

*Theology:* Members of the department of philosophy and religion, in cooperation with the College chaplains, serve as advisers to students who plan to enter seminaries.

**Computer Resources** Plans developed by the faculty and endorsed by the trustees call for continued increase in the use of computers in the curriculum. Instruction is offered in computer science, and key courses have been identified which introduce students to uses of computers in several disciplines. Computer literacy for all graduates is an objective. Facilities now offer highly sophisticated but very approachable computing to a large number of simultaneous users. About 170 terminals in many locations on the campus are connected through communications lines to several time-sharing systems that run AT&T's UNIX operating system. Users may program in C, Pascal, FORTRAN-77, BASIC, LISP, or other languages, or they may run existing programs for statistical analysis, dynamic modeling, text processing, data-base manipulation, graphics, or specific course-related exercises. Every student, upon application, has free, unlimited use of these resources for any noncommercial purpose. Colby recently adopted the Apple Macintosh as its standard micro, and offers it for sale at a discount through the College bookstore to students and faculty. Twenty-five College-owned Macs are also available for student use in clusters on campus.

# Academic Procedures

**Student's Program** The student at Colby normally takes from 12 to 18 credit hours in each semester, and one offering during the January term.

Each freshman has a faculty adviser to assist in planning the academic program. A new faculty adviser is assigned at the end of the freshman year when the student has tentatively selected a major. Approval of the faculty adviser(s) is required for all procedures affecting a student's academic program.

Prospective students frequently ask what subjects they will study—especially in the freshman year. It would be misleading to present any specific pattern of courses for either of the first two years. The programs of individual students may vary widely because there is considerable latitude within the requirements. To prepare students for their lives in an increasingly complex society, students are encouraged to learn quantitative skills, to learn to write well, and to take courses that expose them to cultures other than their own.

To assure distribution among the divisions, first-year students must include English composition, a freshman seminar, a foreign language (unless exempted by examination), and courses to meet requirements in the humanities, social sciences, and natural sciences. Students are advised to complete all distribution requirements by the end of their sophomore year. Students are encouraged to elect subject areas that are new to them and are advised to avoid overconcentration in any department or division.

Students preparing for a scientific career or the study of medicine will begin electing scientific subjects at once. Many major departments in both the natural and social sciences recommend mathematics for the freshman year. The student and assigned adviser should discuss a prospective program, noting carefully the recommendations and requirements in areas of major study. The selection of a major at the end of the freshman year is by no means final; students are encouraged to explore alternatives throughout their sophomore year.

**Academic Standing** A student's class standing is determined by the number of credit hours passed.

*Freshman standing:* fewer than 24 credit hours.

*Sophomore standing:* 24 to 53 credit hours.

*Junior standing:* 54 to 83 credit hours.

*Senior standing:* 84 or more credit hours.

Class standing is not automatically changed to a higher level upon the posting of additional credits; students who believe themselves eligible for a change of class year should consult the registrar.

**Registration** Registration each semester takes place on a date specified in the College calendar.

In exceptional circumstances specified in advance in writing by the dean of students, a student will be permitted to register later than the seventh class day of each semester.

It is important that students understand the distinction between payment of fees and registration. Prior to registration, each student must complete payment of fees as specified by the treasurer, who is not authorized to defer such payment.



**Election of Courses** Each semester, with the approval of their advisers, students elect programs of study for the following semester; these elections, with approved revisions, are confirmed during the registration period at the beginning of each semester. A student's academic program must have the adviser's approval and be properly filed with the registrar before credit will be granted for any course taken. Until the eighth class day of the semester, and with the adviser's approval, voluntary changes in a student's program may be made. Any such changes must be filed with the registrar's office on the appropriate (add/drop) form.

Changes of section within a course must be approved by the department or course chairman, and are subject to the same deadlines as changes of course. Ordinarily, a course cannot be repeated for additional credit nor may a student register for two courses scheduled to meet concurrently.

No student may register for more than 18 credit hours in any semester unless one of the following stipulations is satisfied: (1) at least a 3.00 overall grade point average in two or more Colby semesters, (2) at least a 3.25 grade point average during the previous two semesters (cumulative), or (3) special permission from the faculty adviser(s) and the dean of students.

**Marks** A student may obtain marks from instructors, but the only official college record is that maintained in the registrar's office. Grade reports are issued to the student at the end of each term; the College does not normally furnish parents with reports.

*In regularly graded courses:* Marks are ordinarily posted as *A, B, C, D,* and *F,* with + or - appended to grades *A* through *D.* A mark below *D-* means failure.

*In nongraded courses:* During the semester, *Cr* indicates credit is earned; *NC* is recorded if credit is not earned. During January, *Cr* indicates credit for program; *F* is recorded if no credit is earned.

*Abs* signifies absent from final exam.

*Inc* signifies incomplete: a course not finished for some reason besides failure to take the final exam. A mark of *Inc* is valid only if appropriate arrangements have been made by the student with the instructor by the last class day of the semester.

Grades of *Abs* or *Inc* must be made up within limits set up by the instructor but not later than January 15 for the first semester or July 1 for the second semester. After these dates, any remaining mark of *Abs* or *Inc* will be changed to *F* unless the student has applied for, and circumstances warrant, an extension by the dean of students. For the completion of work without penalty, extensions are considered for exceptional circumstances only.

Marks of *W* and *WF* indicate withdrawal from a course and represent the student's standing at the time of withdrawal. *WF* indicates that the student was failing. *W* indicates either passing or no basis for judgment. These marks are excluded from computation of all averages. Withdrawal is permitted through the final class day of the term.

*F* indicates failure or abandoning a course without permission.

**Academic Review** The committee on academic standing reviews all current student records at the end of each semester to determine that all enrolled students are making satisfactory progress toward the degree. Students who earn fewer than 12 credits or less than a 2.0 grade point average in any semester, exclusive of the January program, are subject to being placed on probation or dismissed from the College by the committee. Only when there are compelling extenuating circumstances (e.g., illness, unusual personal problems) is it advisable for a student

to carry fewer than 12 credits; such a reduced program must be approved by the dean of students.

A student who is on probation must earn 12 credits and a C (2.0) average in the subsequent semester. The January term will be considered as part of the full year's performance in evaluations made by the committee at the end of the second semester.

Students who have been dismissed may, after one year, apply to the committee for reinstatement; during the required interview the student must be prepared to demonstrate an improved commitment to scholarship. A second dismissal is final.

**Pass/Fail** Students may elect a limited number of courses on a pass/fail basis; these cannot include distribution requirements. Most departments specify that major courses must be taken on a conventionally graded basis.

Forms for declaring pass/fail options can be obtained at the registrar's office. The form must be completed and returned by the end of the change of course period in the term in which the course is taken. A pass/fail election may be voluntarily revoked by a deadline established for each term. Letter grades submitted by instructors will be converted to *P* (for grades *A* through *D-*) or *NP* before being posted on permanent records. The registrar's office cannot release more specific information on the quality of the *P*, even upon request of the student who earned it.

**Auditing Courses** Adults who are not matriculated Colby students may register to audit courses at the College. Application to audit must be made with the dean of admissions; if approval is granted, forms for registering to audit specific courses must be obtained from the registrar's office. Permission to audit will be withheld if the class is already too large and if auditing applications for it are numerous.

A nonrefundable fee of \$25 per course is charged for auditing; the fee is waived for persons 65 or more years of age. Members of the College staff and their spouses, with prior approval of the offices of admissions and personnel, may audit courses without charge.

A matriculated Colby student may register to audit courses by obtaining written consent of the instructor and adviser. No auditing fee is charged; no credit is earned, and the audit is not recorded on the student's permanent record.

An auditor is not permitted to submit papers or perform any other function for which course credit is usually given. For this reason, auditing is seldom permitted in courses where the method of instruction involves significant individual attention and criticism. Under no circumstances can academic credit be given an auditor, nor can an audited course later be converted into an accredited course merely by paying the regular course fee. The decision whether the course is to be audited or taken for credit must be made at entry.

**Hour Exams and Quizzes** Hour exams will be scheduled with at least one week's notice. Short quizzes may be given without notice.

**Semester Exams** Six days are set aside at the close of each semester for exams in all courses. The registrar's office schedules the time and place of semester exams in all courses except those that are specifically exempted by the appropriate department chairman.

An excused absence for a semester exam is granted if:

- (1) The instructor gives permission because of illness or grave emergency.
- (2) The registrar has been notified of a valid conflict *on the appropriate form*, e.g.,

three exams on one day, four in consecutive order, or two courses with the same exam number (the last must be resolved at the time of registration).

A student with three exams scheduled in one day or four exams in sequence may choose the exam to be postponed.

A postponed exam may be taken on the designated make-up day or at another time *subsequent to the scheduled exam* agreeable to both the student and the instructor. There is no make-up for failed exams.

The mark for the exam may constitute up to half of the total course mark.

**Warnings** Throughout the semester, at the discretion of the professor, warnings are sent to students. A *major* warning means that a student's average is below passing; a *minor* warning means that a student's average is barely passing.

**Withdrawal, Leave of Absence** Students who leave Colby while a semester is in progress are required to withdraw formally, as are students who leave at the end of a semester with no definite plans for return. Students who withdraw are not permitted to return without special approval. Students who withdraw for medical reasons must have the permission of the College physician in order to apply for readmission. Eligibility for initial or continued financial assistance from the College will be subject to review and action by the financial aid committee.

Students who leave to participate in College-approved student programs elsewhere or who leave at the end of a semester for a specified period may take a leave of absence and are not required to obtain special permission in order to return. Those who do poorly in study programs elsewhere are, however, subject to review and action by the committee on academic standing.

Such withdrawals or leaves must be officially accomplished by filing the appropriate form, which must be obtained from and signed by the dean of students. The proper exit procedure, which includes the surrendering of the student's identification card and dormitory and post office keys, must be followed to be eligible for any refunds that may be due (see "Refunds"). A student who leaves without official notification is not eligible for refunds, which are calculated from the date on the approved notice.

**Transcripts** Students and alumni may have official transcripts mailed to other institutions, prospective employers, or other designated recipients only by requesting them in writing; a transcript request form is available at the registrar's office. The fee for this service is \$1 per transcript after the first. Only courses taken at Colby are listed.

# Courses of Study

## Key to Symbols and Methods of Course Designation

Each course is known by a title, subject, and number: e.g., *American Art* is *Art 271*.

The *first digit* indicates the class or classes eligible to take the course:

000: noncredit January programs; freshmen have priority unless otherwise noted.

100: open to freshmen.

200: ordinarily open to sophomores and classes above.

300: ordinarily open only to juniors and seniors.

400: ordinarily restricted to seniors.

An odd number as the *second digit*: an independent semester course.

An even number as the *second digit*: either of a pair of closely related semester courses *not* usually taken out of sequence, the first of which is prerequisite to the second.

An odd number as the *third digit*: course is given in the first semester.

An even number as the *third digit*: course is given in the second semester.

*d* with a course number: course is given each semester.

*d* with a 1 or 2: course is given out of semester sequence.

*j*: January program offering in current year.

[ ]: course not offered in 1988-89.

†: course will *probably* be offered in 1989-90.

\*: course will *probably not* be offered in 1989-90.

Time and place of classes: a schedule of hours and rooms for courses listed in this catalogue is available at the registrar's office at registration periods.

Courses listed are subject to withdrawal at the discretion of the College administration.

*Credit hours are per semester unless otherwise noted.* Courses listing variable credit are offered primarily for the smaller number of credits. Students can earn augmented credit in these courses by completing such extra work as the instructor may specify. Subject to stricter deadlines as may be specified by the instructor, credit can be increased in a variable-credit course until midsemester or decreased until the last day of the semester. Refer to "Critical Dates" for the appropriate semester or January term.

## Administrative Science

*Chairman*, ASSOCIATE PROFESSOR LEONARD REICH

*Professor Yvonne Knight; Associate Professors Reich and Randy Nelson; Assistant Professor Amy Boyd; Visiting Assistant Professor William Lee<sup>1</sup>; Visiting Instructor Elizabeth Tipper<sup>2</sup>*

The programs in administrative science are devoted to the study of organizations in American society. In today's climate of increasingly sophisticated technology

and multi-national organizations, it is important to approach organizational problems wisely, with ethical responsibility, historical perspective, and imagination. Students wishing to explore the history, philosophy, and practice of decision making in a variety of organizational settings may choose one of three programs of study:

(1) The administrative science major includes (a) a set of core courses designed to expose students to the functions of organizations in society and (b) sets of related courses from which students may choose electives that give the major a specific focus. Both the core courses and the electives draw on the resources of other departments and divisions, recognizing the interdisciplinary aspects of organizational studies and the diversity of student interests.

(2) The administrative science/quantitative methods major offers the quantitative skills essential in a technically oriented world. This program emphasizes mathematical modeling and decision-making skills.

(3) The concentration in administrative science consists of the core courses for the major and offers an independent concentration that is intended to supplement other majors.

#### **Requirements for the Major in Administrative Science**

Administrative Science 221, 311, 494; either Administrative Science 336 or Philosophy 211; Economics 133, 134; Mathematics 231, or 241 and 242, or 381 and 382; Psychology 279; Sociology 131, and one course from Sociology 275, 277, 292, 332, 394; three courses, all chosen from one of the following groups:

Group 1: Economics 223, 224, 277, 278, 331, 332, 338.

Group 2: History 124 and two additional courses from the following: Administrative Science 251; Economics 258, 274; History 353.

Group 3: Administrative Science 231, 272, 333, 334, 353, 354.

No administrative science courses may be taken pass/fail. No other course used to satisfy major requirements may be taken pass/fail. The point scale for retention of the major applies to all courses used to satisfy major requirements.

#### **Requirements for the Major in Administrative Science/Quantitative Methods**

Administrative Science 221, 311, 336, 391, 494; Computer Science 125; Economics 133, 134; Mathematics 121, 122, 118 or 253, and one of the following: 231, or 241 and 242, or 381 and 382; Psychology 279; three semester courses selected from the following: Administrative Science 222, 271, 351, 353, 372; Economics 223, 393. Administrative Science 391 must be elected concurrently with one of the three electives in the last group.

No administrative science courses may be taken pass/fail. No other course used to satisfy major requirements may be taken pass/fail. The point scale for retention of the major applies to all courses used to satisfy major requirements.

#### **Requirements for the Concentration in Administrative Science**

Administrative Science 221, 311, 336; Economics 133, 134; Mathematics 231, or 241 and 242, or 381 and 382; Psychology 279.

Successful completion of the concentration requires a 2.0 average for all requirements above. None of the required courses may be taken pass/fail. This concentration may be added to any other major offered at Colby.

Attention is called to the interdisciplinary concentration in quantitative analysis.

<sup>1</sup>Part-time second semester only.

<sup>2</sup>Part-time first semester only.

**221d Financial Accounting** The underlying theory and analytical aspects of the measurement, recording, and reporting of a firm's financial information to external users. Emphasis is on the conceptual and communication aspects of the financial accounting model in modern society—its relationship to law, economics, and social policy. *Four credit hours.* MRS. KNIGHT

**222 Management Accounting** The principles of measuring, recording, and reporting the accounting information needed by management in planning, coordinating, and controlling an organization's activities. The construction and uses of full cost, differential, and responsibility accounting data will be discussed, with attention to behavioral implications and performance evaluation. *Prerequisite:* Administrative Science 221. *Four credit hours.* MRS. KNIGHT

**231d2 Technology, Corporate Strategy, and Competition** An examination of the interactions between scientific progress, technological opportunities, competitive pressures, corporate strategy, and public policy towards science and technology. Consideration is given to social and organizational influences on corporate research, development, and innovation. *Prerequisite:* Economics 133. *Three or four credit hours.* MR. REICH

**251 Technology and Society in America** An examination of the processes by which rapid technological developments took place in America, including the country's transformation from an agricultural- to an industrial-based economy during the nineteenth century; the stimuli and constraints on inventors, engineers, entrepreneurs, and corporations; the hesitant and often ineffective attempts by government to control technology; and the impact that evolving technology and industry have had on the lives of the nation's people. *Prerequisite:* History 124. *Three or four credit hours.* MR. REICH

**[271] Decision Analysis** An examination of prescriptive and descriptive approaches to decision making. The prescriptive portion is centered on analyses of decisions via trees and matrices. The descriptive portion examines cognitive decision biases and creative problem solving, along with ethical, group, and organizational decision making. *Prerequisite:* A previous course in statistics or permission of the instructor. *Three or four credit hours.*

**272d1 The Computer and Decision Making** An introduction to the uses of computers, especially in administrative and work-place situations. It is not a programming course but rather one where students gain an understanding of the ways computers can be used to improve efficiency and aid decision making in business, industry, government, and other organizations. In addition to computer system design and general programming techniques, the course examines philosophical and social issues such as artificial intelligence and the impact of computers on the work place. *Prerequisite:* Permission of the instructor. *Three credit hours.* MS. TIPPER

**279d2 Organizational Behavior** Listed as Psychology 279d2 (q.v.). *Prerequisite:* Psychology 111. *Four credit hours.* MS. HOOPES

**311d2 Finance** Theory and analysis of how firms judge investments and financial alternatives. The capital markets and the influence of risk are considered. *Three or four credit hours.* MR. NELSON

**[333] Marketing and Society** Development of the broad concept of marketing as a pervasive organizational function. Emphasis is on the processes by which organizations make product, service, and social marketing decisions, and on the societal consequences of those decisions. *Three or four credit hours.*

**334 Administration of Public and Social Service Organizations** An introduction to the theories and methodologies utilized in the administration of public and social service organizations: federal, state, and local government units, health care and educational institutions. Emphasis placed on the management tools and skills that best enable the organization to perform its function efficiently and effectively in an environment of constantly changing social and economic values. *Prerequisite:* Administrative Science 221. *Four credit hours.* MRS. KNIGHT

**336 Business, Technology, and Ethics** This course deals with relationships between the private sector and the changing American political economy. Issues include: business/professional ethics; obligations of organizations to workers, stockholders, and communities; the impact of technology on corporate practices and government regulation; and the influence of business on personal values and public policies. *Prerequisite:* Economics 133, 134. *Three or four credit hours.* MR. REICH

**[351] Marketing Research Methods** An examination of a variety of multivariate statistical techniques as applicable to research issues in administration. Students will be expected to develop a facility for using locally available statistical packages on the computer. *Prerequisite:* Previous coursework in statistics and Mathematics 253 or permission of the instructor. *Three credit hours.*

**353 Managerial Economics** An examination of how economic theories may be used to aid in decision making in both the private and public sectors. Topics include demand and elasticity, production and cost theory, pricing policies, and cost-benefit analysis. Students who have earned credit for Economics 223 may not take this course for credit. *Prerequisite:* Administrative Science 221 and Economics 133, 134. *Three or four credit hours.* MR. NELSON

**354 Law in American Society** The course is designed to provide an understanding of the law and its application to individuals, groups, and organizations. The origin and purpose of law, legal research, contracts, criminal law, torts, and administrative law; emphasis on class participation through discussions, debate, and mock trials. *Three or four credit hours.* MR. LEE

**372d1 Operations Research** A survey course in the application of scientific methods to the study of organizational operations via quantitative models. *Prerequisite:* A previous course in statistics and linear algebra or permission of the instructor. *Three or four credit hours.* MS. BOYD

**391d Analytical Research Paper** An analytical research paper to be written in conjunction with and while currently enrolled in one of the electives chosen for the administrative science/quantitative methods or administrative science major. Required of all administrative science/quantitative methods majors. *Prerequisite:* Permission of the instructor. *One credit hour.* FACULTY

**491, 492 Independent Study** Individual projects devoted to organizational issues in which the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *One to four credit hours.* FACULTY

**494d Senior Seminar** Specific topics will change yearly and will be announced in advance. *Prerequisite:* Senior standing as an administrative science/quantitative methods major. *Four credit hours.* FACULTY

## American Studies

*Director,* PROFESSOR THOMAS LONGSTAFF

ADVISORY COMMITTEE: *Professors Charles Bassett (English), Joel Bernard (History), Pamela Blake<sup>1</sup>(Government), Patrick Brancaccio<sup>2</sup>(English), Debra Campbell (Religion), Fraser Cocks (Special Collections), Anthony Corrado (Government), Henry Gemery (Economics), Cheryl Gilkes (Black Studies and Sociology), Natalie Harris<sup>1</sup>(English), Peter Harris<sup>3</sup>(English), Linda Hoopes (Psychology), Yeager Hudson (Philosophy), Jane Hunter (History), Longstaff (Religion), David Lubin (American Studies and Art), Paul Machlin<sup>1</sup> (Music), Sandy Maisel (Government), Phyllis Mannocchi<sup>3</sup>(English), Fred Moseley<sup>4</sup> (Economics), Richard Moss (History), Harold Raymond (History), Leonard Reich (Administrative Science), John Sweney<sup>4</sup> (English), Robert Weisbrot (History), and five students majoring in American Studies*

A student majoring in American studies at Colby is taught—in single courses and through a combination of courses—the subject matter of America's past and present, with special effort devoted to the integration and knowledge of more than one academic discipline. Built around a core of courses in American history and American literature, the American studies program strives for genuinely interdisciplinary insights into the complexities of American thought and culture.

### Requirements for the Major in American Studies

American Studies 271\* and 493 or 494; English 251\* and 252\*; History 123\* and 124\*; two additional English courses in American literature; two additional courses in American history; and four additional courses (see lists below) with some interdisciplinary focus on American culture—coordinated with the approval of the major adviser according to chronology, theme, or method—to bring the total to a minimum of 14 courses. (*Note:* courses marked with \* are expected to be completed before the junior year.)

Students majoring in American studies may apply during their junior year for admission to the honors program. On successful completion of the work of the honors program and of the major, their graduation from the College will be noted as being "With Honors in American Studies."

The point scale for retention of the major applies to all courses offered toward the major. No requirement for the major may be taken pass/fail.

Courses most commonly taken in recent years in fulfillment of requirements for the major in American studies include:

*Administrative Science:* 354 Law in American Society.

*American Studies:* 274 The Female Experience in America.

*Art:* 271 American Art; 278 American Visual Arts.



*Economics:* 231 Introduction to Environmental Economics; 274 American Economic History.

*Education:* 336 The American School.

*English:* 351 American Renaissance I; 352 American Renaissance II; 353 The Realistic Imagination; 354 The American Short Story; 355 Black American Literature; 356 Modern American Fiction; 357 Modern American Poetry; 493, 494 Seminars in American Literature.

*Government:* 273 The American Congress; 356 Parties and the Electoral Process.

*History:* 215 America and Asia; 257 History of Women in America; 258 American Character and Culture; 277 Afro-American History; 353 American Culture and Society 1865-1975; 372 The Civil War; 393 American Cultural History 1600-1865; 415, 416 Seminars in American History.

*Music:* 133 American Music.

*Philosophy:* 252 American Philosophy.

*Psychology:* 253 Social Psychology.

*Religion:* 217 Religion in America.

*Sociology:* 211 Short Courses in American Sociology; 252 Race, Ethnicity, and Society; 276 Men and Women in Society.

Additional courses which may be taken in fulfillment of requirements for the major in American Studies include:

*Administrative Science:* 251 Technology and Society in America; 336 Business, Technology, and Ethics.

*American Studies:* -97, -98 Selected Topics (except at the 100 level); 273 Introduction to American Material Culture; 276 Black Culture in America; 491, 492 Independent Study.

*Anthropology:* 211 Indigenous Peoples and Cultures of North America; 251 Modern World: Anthropological Perspectives.

*Art:* 277 American Visual Arts; 353 Contemporary Art, 1914 to the Present; 491, 492 Independent Study.

*Economics:* 294 Urban and Regional Economics; 312 Topics in Law and Economics; 319 Economics of Poverty and Income Distribution in the United States; 491, 492 Independent Study.

*Education:* 294 Women in Professions.

*English:* 338 Contemporary American Fiction; 358 Contemporary American Poetry; 397 Faulkner; 491, 492 Independent Study.

*Government:* 275 The Committee System in the United States Congress; 276 The American Presidency; 312 Directions in Feminist Theory; 313 American Constitutional Law I; 314 American Constitutional Law II; 316 American Political Thought; 317 The Policymaking Process; 457 Seminar on the Foreign Policy of the United States.

*History:* 217 The Kennedy Administration; 272 War and Revolution in Vietnam; 312 The Atlantic Revolutions; 354 American Intellectual History, 1865-1917; 373 American Political History 1865-1929; 374 American Political History 1929-Present; 376 America: 1607-1783; 377 The Coming of the Civil War; 378 United States History 1783-1860; 432 Seminar in Black History; 491, 492 Independent Study.

*Music:* 219 American Musical Theater; 231 Jazz.

*Philosophy:* 491, 492 Independent Study.

*Psychology:* 491, 492 Independent Study.

*Religion:* 257 Women in American Religion; 491, 492 Independent Study.

*Sociology:* 231 Contemporary Social Issues; 233 Criminology; 292 Social Change;

318 Contemporary Theory; 334 Social Deviance; 355 Social Change, Afro-American Women; 356 Afro-American Religious Experience; 491, 492 Independent Study.

*Technology Studies:* 297 Science in America.

<sup>1</sup>On leave full year.

<sup>2</sup>Resident director, Colby in London, full year.

<sup>3</sup>On leave first semester.

<sup>4</sup>On leave second semester.

†[256] **Business Cycles in United States History** Listed as Economics 258 (q.v.). *Prerequisite:* Economics 134 or permission of the instructor. *Three credit hours.*

**271d Introduction to American Studies** An interdisciplinary examination of an era or theme in American thought and culture. Social, political, racial, artistic, musical, economic, and cultural aspects of American life will be explored in lecture and discussion, with popular media a focus. *Four credit hours.* MR. LUBIN AND MR. CORRADO

**\*273j Introduction to American Material Culture** Seeks insight into the everyday lives of Americans at different times and places, with a focus on New England. Assumptions about the past will be formulated and tested by visual and historiographic scrutiny of household artifacts, vernacular architecture, common landscape, etc. A field trip and research project are required. *Three credit hours.* MR. LUBIN

**274 The Female Experience in America** An introductory course that focuses on major issues in twentieth-century American women's lives and the second wave of the women's movement: the cycles of women's lives; women and creativity; women, race, and class; the new psychology of women; and women working for social change. Autobiographical, fictional, and theoretical works by Charlotte Perkins Gilman, Edith Wharton, Sarah Orne Jewett, Zola Neale Hurston, Eudora Welty, Alice Walker, Russell Baker, Carolyn Chute, Louise Erdrich, Joan Chase, Susan Kenney, Gloria Naylor, Jean Baker Miller, and selected films. Students will participate in the production of slide- or video-tape documentaries on issues raised in the classroom. Enrollment limited. *Three or four credit hours.* MS. MANNOCCHI

**276 Black Culture in America** An interdisciplinary examination of black cultural expression from the slave era to the present, including folk tales, blues, gospel music, work songs, jazz, sermons, dance, literature, and social institutions, tracing the stages of development of a distinctive black culture in America, its relationship to the historical, social, and political realities of black Americans, and its role in the cultural formation of the United States. *Three credit hours.* MS. GILKES

**277, †[278] American Visual Arts** Listed as Art 277, 278 (q.v.). *Three credit hours.* MR. LUBIN

**491, 492 Independent Study** Individual study of special problems in American studies in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor and the program director. *One to four credit hours.* FACULTY

**493, 494 Seminar in American Studies** An interdisciplinary seminar incorporating theoretical approaches to the study of American thought and culture. Topic will change each semester. Topics in 1988-89 include: "The Social Novel in America: 1860-1960," "America in the 1930s: A Culture in Crisis," and "Romance in America." *Prerequisite:* Senior standing as American studies major. *Three credit hours.* MR. BASSETT, MR. LUBIN, AND MR. CORRADO

## Ancient History

*In the department of classics.*

**†[151] Introduction to Greek Civilization** A survey of Greek culture from Homer to Plato, with special attention to the artistic developments that culminated in the Periclean age of Athens. *Three or four credit hours.*

**\*154 Roman History** The origins of Empire; history and archaeology of Roman hegemony in the Mediterranean world and its consequences for both Rome and the provinces. *Three or four credit hours.* MISS BLASINGHAM

**[177], 178 Topics in Ancient History: The Ancient City** An analysis of the origins and development of the social and political institutions of Athens and Rome. *Two or three credit hours.* MR. WALKER

**252 Prehistoric Greece** Issues and problems in the art and archaeology of Minoan Greece; the rise of the palaces; interconnections in the Bronze Age world; archaeology as cultural history. *Three or four credit hours.* MISS BLASINGHAM

**†[352] Athens in the Fifth Century** The forces that shaped Athenian democracy and the cultural and political life distinctive of Periclean Athens. *Three or four credit hours.*

**†[353] Greece in the Fourth Century** The history of Greece from the death of Socrates to the rule of Alexander, drawing largely upon contemporary sources. *Prerequisite:* Permission of the instructor. *Three or four credit hours.*

**491, 492 Independent Study** Individual projects in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *One to three credit hours.* FACULTY

## Anthropology

*Director,* ASSISTANT PROFESSOR SUZANNE FALGOUT  
*Assistant Professor Falgout; Visiting Assistant Professor Harald Prins*

### Requirements for the Concentration in Anthropology

At least 21 hours in Anthropology, including 112; either 113 or 118 or 134; one cultural area course from 211, 232, 233, or 234; one topical course from 214, 216, 236, 251, 276, or 297; one seminar in method or theory at the 300 level; and five additional hours in anthropology.

**112d Cultural Anthropology** An intensive introduction to the study of different societies and cultures in the world, using a cross-cultural perspective on human behavior. Explores the diversity of human cultures from hunter-gatherers to industrialized city dwellers. Considers the implications of economic, social, political, symbolic, and religious systems for the lives of men and women. Topics include enculturation and transmitting values; group coherence and continuity; impact of material, technological, and social change; effects and culture contact. By emphasizing non-Western cultures, the course critically explores our accepted notions about human nature, society, and ideologies. *Four credit hours.* MR. PRINS AND MS. FALGOUT

**[113] Nature of Language** Language is the principal means by which humans communicate. The course explores the nature of language, the unique biological characteristics of humans that make language possible, and the significance of language for human culture. Anthropological techniques to analyze languages around the world will be applied to the study of students' own speech community. *Three credit hours.*

**115j Anthropology via Film: Critical Perspectives and Interpretations** The course explores how ethnographic film-makers and film, seen as both a visual medium of expression and as an expression of comparative, cross-cultural anthropological analysis, shape visions of human beings, cultures, and the human condition. Films made by anthropologists expressly for pedagogical purposes and mass-media feature films will be used, as well as commentary, discussion, and supplementary readings. "Etic" and "emic" distinctions, artistic license and translation, and the creation of visual images of "others" as subjects will be examined. Basic concepts, anthropological theory and field work, along with questions of ethics, objectivity, and ethnographic "accuracy," will be considered as critical perspectives and interpretations are developed. Enrollment limited. *Two or three credit hours.* MR. PRINS

**118 Archaeology** Listed as Religion 118 (q.v.). *Three credit hours.* MR. LONGSTAFF

**[134] Human Origins** Introduction to the physical and prehistoric development of humankind, including primate and human evolution, "race" and racism, behavioral evolution, the Darwinian revolution, and modern evolutionary theory. *Four credit hours.*

**174 Philosophical Anthropology: The Philosophy of Human Nature** Listed as Philosophy 174 (q.v.). *Four credit hours.* MR. HUDSON

**211d2 Indigenous Peoples and Cultures of North America** An ethnographic survey of the sociocultural systems developed by indigenous Americans north of Mexico. Examines relationships between ecological factors, subsistence practices, social organizations, and belief systems, along with contemporary issues of change, contact, and cultural survival. *Prerequisite:* An introductory course in anthropology, sociology, American studies, history, or government, or permission of the instructor. *Three credit hours.* MR. PRINS

**214 Religion, Magic, and Witchcraft** An investigation of religion, religious behavior and practices, worldview, and the supernatural is made using

anthropological theories, perspectives, and analyses. Rites of transition, death and afterlife, ritual, religious leaders, traditional curing, religious movements, revitalization, cults, witchcraft, magic, and especially *shamanism* are examined cross-culturally. *Prerequisite:* Anthropology 112. *Three credit hours.* MR. PRINS

**†[215] Cross-cultural Perspectives on Sex Roles** Female and male roles in a range of different societies. Sources of power and prestige; implications of economic and social arrangements for female and male personality traits and behaviors; socialization and the transmission of values; religious systems. The significance of technology, household and family structure, public decision making to the relative positions of women and men in various societies. The relevance of cross-cultural data to our own assumptions and attitudes about males and females. *Three or four credit hours.*

**[217] Cross-cultural Race Relations** An examination of the effects of prolonged contact between racial groups in America, Brazil, and South Africa, focusing on differential access to resources and opportunities, and ending with a brief analysis of the social conditions that encourage either racial harmony or conflict. *Prerequisite:* Either Anthropology 112 or Sociology 131 or permission of the instructor. *Three credit hours.*

**[219] Primitive Social Organization and Kinship** An examination of the varieties of social structure, kinship, and social relations in comparative cross-cultural perspective. Considered are the roles of kinship, age, gender, environment, economics, family, parenthood, and marriage in social interactions and attitudes formed between individuals and groups. *Prerequisite:* An introductory course in anthropology, sociology, psychology, philosophy, religion, history, or government, or permission of the instructor. *Three credit hours.*

**[232] South Pacific Islands Culture** Investigates both the fantasy and the reality of the exotic cultures of the South Pacific. Explores the original formation and peopling of the islands; the different social, political, economic, and religious systems that developed; and the history of foreign contact and culture change. *Three credit hours.*

**[233] Anthropology of a Region** A sociocultural analysis of a selected geographic area. *Three credit hours.*

**234d1 Indigenous Peoples and Cultures of Central and South America** An ethnographic survey of the sociocultural systems developed by indigenous Americans from Mexico southward to Tierra del Fuego. Examines relationships between ecological factors, subsistence practices, social organizations, and belief systems, along with contemporary issues of change, contact, and cultural survival. *Prerequisite:* An introductory course in anthropology, sociology, American studies, history, or government. *Three or four credit hours.* MR. PRINS

**236 Emotion, Society, and Culture** Consideration of the biological basis, socialization, social management, and cultural conception of emotions, and an examination of the expression of emotions in the context of recent Western intellectual history as well as in cross-cultural perspective. Enrollment limited. *Prerequisite:* Three credit hours in anthropology, or permission of the instructor. *Three credit hours.* MS. FALGOUT

**[251] The Modern World: Anthropological Perspectives** The modern world and American culture are analyzed using the perspectives and methodologies of anthropology. Contemporary problems and major global issues are explored. The questions of "modernization" and "progress" as either solutions to or causes of world crises are critically examined. Topics include population; famine and food production; energy; world economic system; feminism; agism, sexism, and racism; technological impact; gay liberation; terrorism and revolution; the rise of religious cults; the sexual revolution; drugs and rock music. *Three credit hours.*

**276 Men and Women in Society** Listed as Sociology 276 (q.v.). *Prerequisite:* Sociology 131. *Three credit hours.* MS. ROSE

**[311] Psychological Anthropology** Explores the role culture plays in shaping the world view, personality, and emotions of individuals. Examines cultural diversity in a wide range of human expressions, such as art, folklore, ritual, notions of self and other, altered states of consciousness, and mental disorders. *Three credit hours.*

**†[312] Ritual and Identity** Stages of life are marked in different societies: initiation rites, marriage and birth customs, rituals of death and mourning. A study of the marking of life-cycle events in a range of societies; the relationship between rites of passage and identity; what rituals imply about female and male roles, personalities, and the bringing up of children. *Prerequisite:* Two courses in any one or combination of the following subjects: sociology, psychology, biology, philosophy and religion, history, American studies, or permission of the instructor. *Three credit hours.*

**313 Seminar in Ethnographic Field Methods** An introduction to research methods used by anthropologists to investigate cultural phenomena in natural settings both abroad and at home. Research ethics; choice of topic and research setting; entree into the field; physical and psychological demands of fieldwork; interaction with native informants and the production of knowledge; sampling; participant-observation; interviewing techniques; forms of qualitative analysis and interpretation; ethnographies as texts. Students will design and conduct a small field research project. Enrollment limited. *Prerequisite:* Three credit hours in anthropology or permission of the instructor. *Three credit hours.* MS. FALGOUT

**314 Seminar: Underdevelopment, Change, and Cultural Survival** A study of anthropological and historical approaches to issues of underdevelopment, culture change, and cultural survival in traditional societies, focusing on the destructive impact of the industrial world's economic, political, and social order on indigenous native cultures in developing Third World nations. Enrollment limited. *Three credit hours.* MR. PRINS

**[397] Symbolic Anthropology** Culture is a system of symbols and meanings shared by a group of people. An exploration of the processes of the construction and communication of meaning through symbols, using anthropological approaches to analyzing symbols, including structuralism, semiotics, interpretive anthropology, and cultural analysis. *Three credit hours.*

**491, 492 Independent Study** Individual topics in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *Two to four credit hours.* FACULTY

# Applied Mathematics

Director, ASSISTANT PROFESSOR AMY BOYD

ADVISORY COMMITTEE: *Professors Boyd (Administrative Science), Homer Hayslett (Mathematics), Randy Nelson (Economics), Leonard Reich (Administrative Science), Dale Skrien (Mathematics), and John Sweney (English)*

An independent concentration in applied mathematics is offered for all students majoring in subjects in the natural sciences. For further information, refer to the section on "Quantitative Analysis."

## Art

Chairman, VISITING ASSOCIATE PROFESSOR ABBOTT MEADER

*Professors Harriett Matthews and David Simon<sup>1</sup>; Associate Professor Gina Werfel; Visiting Associate Professor Meader<sup>2</sup>; Assistant Professors Sonia Simon<sup>1</sup>, David Lubin, and Michael Marlais; Visiting Assistant Professor Scott Reed<sup>2</sup>; Visiting Instructors David Sensabaugh, Sarah Cohen, and Lisa Reilly*

The Colby art department includes practicing artists, art historians, and a museum director. With special studios for design, drawing, printmaking, and sculpture, as well as a museum, the department features a curriculum that allows students not only to explore the intrinsic nature of materials and techniques but also to develop their own expressive abilities. Art history offerings are designed with the recognition that the artistic products of any period are related to the social, political, and cultural concerns of that period. Students at Colby are able to approach art from both a practical and historical perspective, and thus are better able to understand the total experience of art.

### Requirements for the Major in Art

Art 111, 112, 131, and one course in each of the following three groups:

- (1) Art 311, 313, 314
- (2) Art 331, 332, 334, 335
- (3) Art 351, 352, 353

and three additional art courses.

The point scale for retention of the major applies to courses taken in the department. No requirement for the major may be taken pass/fail.

Students planning to continue the study of art or art history in graduate school should confer with their advisers to be sure that they have planned a substantial and adequate course of study. Art history graduate programs generally require proficiency in at least one foreign language.

Attention is called to the interdisciplinary major in American studies.

### Requirements for the Concentration in Studio Art

In addition to fulfilling the requirements for the major in art: Art 221, 222, and at least four courses in either sculpture or painting.

<sup>1</sup>On leave full year.

<sup>2</sup>Part-time.

**111, 112 Survey of Western Art** A survey of the history of painting, sculpture, and architecture. First semester: Egyptian pyramids through Gothic cathedrals. Second semester: Renaissance Italy through contemporary America. *Four credit hours.* MR. MARLAIS AND OTHERS

**113j Photography** Nongraded. *Two credit hours.* STAFF

**114j Pottery** Nongraded. *Two credit hours.* STAFF

**115j Advanced Photography** Nongraded. *Two credit hours.* STAFF

**131d Foundations in Studio Art** An introduction to the major materials and media of studio art through projects involving design, drawing, and painting. A range of aesthetic possibilities is presented, and the student is encouraged to explore a variety of approaches. No prior experience is required. Out-of-class work is essential. In very unusual cases, this course may be waived as a prerequisite for Art 221, 232, 234, or 241, by the submission of a portfolio to the department in advance of registration. *Three credit hours.* MR. MEADER, MS. WERFEL, AND MR. REED

**221 Drawing I** Fundamentals of drawing and use of graphic materials. Concern for drawing as a means of developing visual and perceptual awareness. Out-of-class work is essential. *Prerequisite:* Art 131. *Three credit hours.* MS. MATTHEWS

**222 Drawing II** Continuation of Art 221 with special concern for drawing the figure. Out-of-class work is essential. *Prerequisite:* Art 221. *Three credit hours.* MS. MATTHEWS

**232 Design** Exploration of design elements, focusing on aspects of composition and color, as well as basic principles. Out-of-class work is essential. *Prerequisite:* Art 131. *Three credit hours.* MR. MEADER

**234d Printmaking I** Introduction to methods of generating images from printing surfaces. Concentration on relief printmaking. Out-of-class work is essential. *Prerequisite:* Art 131. *Three credit hours.* MR. REED

**235d2 Printmaking II** Further exploration of the materials, techniques, and ideas developed in Printmaking I. Out-of-class work is essential. *Prerequisite:* Art 234. *Three credit hours.* MR. REED

**241 Painting I** Oil technique, painting from still life, figure, and landscape. Issues of abstraction will also be addressed. Out-of-class work is essential. *Prerequisite:* Art 131. *Three credit hours.* MS. WERFEL

**242 Painting II** Further exploration of the materials, techniques, and ideas developed in Painting I. Out-of-class work is essential. *Prerequisite:* Art 241. *Three credit hours.* MS. WERFEL

**261 Sculpture I** An introduction to form and ideas through the use of quick media. Out-of-class work is essential. *Prerequisite:* Art 131 or permission of the instructor. *Three credit hours.* MS. MATTHEWS

**262 Sculpture II** Further exploration of the materials, techniques, and ideas developed in Sculpture I, stressing more traditional materials. Out-of-class work is essential. *Prerequisite:* Art 261. *Three credit hours.* MS. MATTHEWS



[271] **American Art** Architecture, sculpture, and painting from colonial times to the twentieth century. Lectures and problems make use of the original material in the Colby collections. *Three credit hours.*

275 **Classics of the Sound Cinema** Selected masterpieces of world cinema (1930-1960). Particular emphasis on developing skills for viewing films as a form of visual art. Enrollment limited. *Three credit hours.* MR. LUBIN

277 **American Visual Arts I** American art and culture from the colonial period, concentrating on the seventeenth, eighteenth, and nineteenth centuries, in terms of changing aesthetic standards as well as social and historical developments. Areas of study include the fine arts, folk art, material culture, and mass media. Cross-listed as American Studies 277. Not open to students who have taken Art 271. *Three credit hours.* MR. LUBIN

[278] **American Visual Arts II** A continuation of Art 277, concentrating on the twentieth century. Cross-listed as American Studies 278. *Three credit hours.*

297A **The Arts of China** A historical introduction to the major art forms of China—ceramics, bronze, sculpture, painting, and architecture—from their beginnings in the Neolithic to the end of the traditional period, c. A.D. 1750. *Three credit hours.* MR. SENSABAUGH

297B **The Arts of Japan** A historical introduction to the major media of Japanese art—ceramics, sculpture, architecture, and painting. *Three credit hours.* MR. SENSABAUGH

297j **The Acropolis** The major monuments of architecture, sculpture, and painting of the Acropolis in Athens, and a consideration of issues of planning. The importance of relationships to social and political history. *Prerequisite:* Art 111 or permission of the instructor. *Three credit hours.* MS. REILLY

311 **Art of Ancient Greece and Rome** Architecture, sculpture, and painting from the development of the Minoan civilization through the fall of Rome. *Prerequisite:* Art 111 or permission of the instructor. *Three or four credit hours.* MS. REILLY

313d2 **Art of the Early Middle Ages** Painting, sculpture, and architecture from A.D. 315 to A.D. 1000, from the Christianization of Rome through the development of Byzantine civilization in the East and through the Ottonian Empire in the West. *Prerequisite:* Art 111. *Three or four credit hours.* MS. REILLY

[314] **Art of the High Middle Ages** Romanesque and Gothic painting, sculpture, and architecture in western Europe, from the reemergence of monumental stone sculpture through the exuberance of the Gothic cathedral. Influences of monastery, pilgrimage, and court on art from A.D. 1000 to 1400. *Prerequisite:* Art 111. *Three or four credit hours.*

[331] **Art of the Renaissance in Northern Europe** The art of France, Germany, and the Lowlands in the fifteenth and sixteenth centuries, with emphasis on the major painters from Van Eyck to Brueghel. *Prerequisite:* Art 111 or 112, or permission of the instructor. *Three or four credit hours.* MS. REILLY

**332 Art of the Renaissance in Italy** The art of the fifteenth and sixteenth centuries in Italy, with emphasis on the major architects, sculptors, and painters. *Prerequisite:* Art 111, 112, or permission of the instructor. *Three or four credit hours.* MS. COHEN

**334d1 Baroque Art of Italy and France** Painting, sculpture, and architecture of the seventeenth century. Relationships to Spain will also be explored. *Prerequisite:* Art 112, or permission of the instructor. *Three or four credit hours.* MS. COHEN

**[335] Mannerism and Baroque Art in Italy** Painting, sculpture, and architecture from the late works of Michelangelo in the sixteenth century through the domes of Guarini in the late seventeenth century. *Prerequisite:* Art 112. *Three or four credit hours.*

**341 Painting III** Further exploration of the materials, techniques, and ideas developed in Painting II. Out-of-class work is essential. *Prerequisite:* Art 242. *Three credit hours.* MS. WERFEL

**342 Painting IV** Further exploration of the materials, techniques, and ideas developed in Painting III. Out-of-class work is essential. *Prerequisite:* Art 341. *Three credit hours.* MS. WERFEL

**[351] European Art, 1780-1880** Emphasis on European art of the neoclassic, romantic, realist, and impressionist movements. *Prerequisite:* Art 112. *Three or four credit hours.*

**352 Modern Art, 1880-1914** History of avant-garde movements from post-impressionism through German expressionism. *Prerequisite:* Art 112. *Three or four credit hours.* MR. MARLAIS

**353d2 Contemporary Art, 1914 to the Present** History of art from dada and surrealism to our own time. Emphasis on issues of art criticism as well as on current practices. *Prerequisite:* Art 112. *Three or four credit hours.* MR. MARLAIS

**361 Sculpture III** Further exploration of sculptural techniques and ideas. Out-of-class work is essential. *Prerequisite:* Art 262. *Three credit hours.* MS. MATTHEWS

**362 Sculpture IV** Further exploration of sculptural techniques and ideas. Out-of-class work is essential. *Prerequisite:* Art 361. *Three credit hours.* MS. MATTHEWS

**[371] The Graphic Arts** History and criticism of drawing and printmaking, with emphasis on European art since the Renaissance. *Prerequisite:* Art 112 or permission of the instructor. *Three credit hours.*

**[374] Women and Film** A close study of films by and/or about women, their role in society, and issues of gender. Various nationalities and genres of film will be studied, as well as supplemental writings by mainstream and feminist film historians. Enrollment limited. *Prerequisite:* Art 275. *Three credit hours.*

**398A Chinese Painting** An introduction to the history and problems of Chinese painting. *Prerequisite:* Art 297A or permission of the instructor. *Three or four credit hours.* MR. SENSABAUGH

**398B Eighteenth-Century Art of Europe** Painting, sculpture, architecture, and the decorative arts in France, Germany, England, and Italy. *Prerequisite:* Art 112 or permission of the instructor. *Three or four credit hours.* MS. COHEN

**441 Painting V** Further exploration of materials, techniques, and ideas developed in Painting IV. Out-of-class work is essential. *Prerequisite:* Art 342. *Three credit hours.* MS. WERFEL

**442 Painting VI** Further exploration of materials, techniques, and ideas developed in Painting V. Out-of-class work is essential. *Prerequisite:* Art 441. *Three credit hours.* MS. WERFEL

**461 Sculpture V** Further exploration of sculptural techniques and ideas. Out-of-class work is essential. *Prerequisite:* Art 362. *Three credit hours.* MS. MATTHEWS

**462 Sculpture VI** Further exploration of sculptural techniques and ideas. Out-of-class work is essential. *Prerequisite:* Art 461. *Three credit hours.* MS. MATTHEWS

**491, 492 Independent Study** Individual study of special problems in the practice, history, or theory of the visual arts. *Prerequisite:* Permission of the instructor. *One to four credit hours.* FACULTY

**494 Seminar in Art History** An intensive investigation of the Impressionist movement in France, with emphasis on innovative ways of viewing the contribution of the Impressionists. Importance of social as well as stylistic concerns. The main focus will be on painting, but will include critical commentary from the period and more recent analyses of Impressionism. *Prerequisite:* Art 351 or 352 and permission of the instructor. *Three credit hours.* MR. MARLAIS

## Astronomy

*In the department of physics and astronomy.*

**151 Stars and Stellar Systems** An introductory survey of modern solar, stellar, galactic, and extragalactic astronomy for students of both science and non-science backgrounds. Basic astronomical concepts and recent discoveries will be treated from an astrophysical point of view. Lecture only. *Three credit hours.* MR. CAMPBELL

**151L Stars and Stellar Systems Laboratory** Theory and use of telescopes, and astronomical measurements. Students must be available Monday through Thursday evenings for telescope observing as weather permits. Enrollment limited. *Prerequisite:* concurrent enrollment in Astronomy 151 and permission of the instructor. *One credit hour.* MR. CAMPBELL

**[152] Historical and Planetary Astronomy** A descriptive study of the history of astronomy and of our planetary system. The history of astronomy from ancient

times primarily concerns the planets. Modern planetary astronomy is treated as an observational science with emphasis on the discoveries of recent interplanetary space probes. Does not satisfy the laboratory science distribution requirement. *Three credit hours.*

## Biology

*Chairman, PROFESSOR ARTHUR CHAMPLIN*

*Professors Miriam Bennett, Champlin, and David Firmage; Associate Professors Bruce Fowles<sup>1</sup>, Russell Cole, and Jay Labov; Assistant Professors Frank Fekete, Raymond Phillips<sup>2</sup>, and Paul Greenwood; Visiting Instructor Charles Gregory*

The department of biology provides its students with a background in, and an appreciation for, important aspects of classical and modern biology: genetics, anatomy, physiology, development, molecular biology, evolution, behavior, and ecology. To provide a broad and comprehensive investigation of the biological sciences, the departmental curriculum emphasizes the study of the biology of plants, animals, and microorganisms. Graduates enroll in medical schools, dental schools, veterinary colleges, and in graduate programs in biology. Others are employed as research assistants or as teachers at the secondary level. Special facilities include the Perkins Arboretum, the Colby-Marston Bog, a microscopy laboratory equipped with both scanning and transmission electron microscopes, a laboratory microcomputer cluster, an isotope laboratory, a greenhouse, and animal rooms.

For all major programs offered by the department, the point scale for retention of the major applies to all courses required for the major and all elected biology courses. No requirement for the major may be taken pass/fail.

### **Requirements for the Basic Major in Biology**

In biology, 33 hours, including 121, 122, 271, 272, 393, 394 (substitutions may be made with departmental approval); Chemistry 141, 142; Mathematics 119, 121 or 123, or equivalent, and one additional mathematics course numbered 112 or higher. The comprehensive examination in the major is to be taken in the senior year.

Biology 121, 122, 271, and 272 constitute a core program and are normally prerequisite to all higher-numbered biology courses. With permission of the department, a student may arrange to take Biology 271 or 272 and higher-numbered biology courses concurrently.

The inclusion of geology is advised for majors preparing for teaching or for work in the field aspects of biology. Students interested in teaching, private and public, are urged to read the education section of the catalogue and to contact a member of the education department. Students preparing for dental, medical, or veterinary schools should take Mathematics 122 or 124 and must take Chemistry 241, 242, and Physics 121, 122; students preparing for graduate study in the biological sciences should also elect these courses. For most of these students, at least one further course in mathematics should be elected with the advice of the major department. Requirements for the Ph.D. degree in areas of biological science may include a reading knowledge of two modern foreign languages.

Colby is a member of the West Indies Laboratory College Association. Through this association, qualified students are provided opportunities for a semester of study in marine science or environmental science at the West Indies Laboratory in St. Croix, U.S. Virgin Islands.

Students are encouraged to take courses at approved summer laboratories; with prior approval, such courses may be credited toward the major requirement.

The **Environmental Science Concentration** is designed to provide students with a background to work in the environmental field or to continue on to graduate study in environmental science or in one of the other biological disciplines. In recent years, graduates have enrolled in graduate programs in ecology, marine biology, natural resource management, public policy, and environmental health. Others are employed by federal and state agencies, private and public organizations, and consulting firms. The requirements are: in biology, 33 hours, including 121, 122, 271, 272, 301, 302, 352 (with laboratory), 493; Chemistry 141, 142; Economics 133, 231; two courses selected from Geology 141, 142, 172, and Chemistry 217, 241, 242; Mathematics 119, 121 or 123, and either 112 or 241. The comprehensive examination in biology is to be taken in the senior year.

Students are encouraged to take at least one field-oriented course such as Biology 354, 358, Sea Semester, or other similar approved programs.

Attention is called to the interdisciplinary concentration in applied mathematics.

<sup>1</sup>On leave first semester.

<sup>2</sup>Part-time.

**[112j] Heredity and Evolution** An introduction to the concepts of heredity and evolution. Lecture only. Does not satisfy the laboratory science distribution requirement. Cannot be counted toward the biology major. Credit may not be obtained for both Biology 112j and 122. Enrollment limited. *Two credit hours.*

**†[114j] Popular Issues in Biology** An examination of current, popular problems in the biological sciences, including evolution, animal experimentation, genetic engineering, and others. Discussions and lectures will be based on recent popular literature and on the scientific viewpoint of such issues. Cannot be counted toward the biology major. Does not satisfy the laboratory science distribution requirement. Enrollment limited. *Two credit hours.*

**121, 122 Introduction to Biology** First semester: the biology of selected organisms. Second semester: the biology of reproduction, inheritance, and development. Examples are drawn from a variety of organisms. Lectures presented by several members of the biology faculty in their areas of specialization. Lecture and laboratory. *Four credit hours.* FACULTY

**132 Aspects of Human Physiology** An examination of the functions and structure of the human organism. Topics include the basics of biological chemistry and physics, the physiology of metabolism, integration of information via nerves and hormones, circulation, mechanisms of breathing and gas exchange, reproduction, excretion, manipulation of the external and internal environment by muscles, and nutrition. History and methodology of human physiology as a science are examined throughout the course. Cannot be counted toward the biology major. Formerly listed as Biology 212. *Prerequisite:* Biology 121. Enrollment limited. Lecture only: *three credit hours*; lecture and laboratory: *four credit hours.* MR. LABOV

**\*133j Impact of Microorganisms on Man** An exploration of the microbial world. Discussions and lectures will be based on the roles microorganisms play in disease,

the food industry, ecology, energy generation, and biotechnology. Cannot be counted toward the biology major. Does not satisfy the laboratory science distribution requirement. *Two credit hours.* MR. FEKETE

**[136] Horticulture** Basic principles in the areas of plant structure and function will be covered and related to plant cultivation. Practical application of these principles will be discussed in areas such as lighting, propagation, pruning, and floriculture. One field trip will be taken. Does not satisfy the laboratory science distribution requirement. Cannot be counted toward the biology major. Credit may not be obtained for both Biology 136 and 138. Enrollment limited. *Three credit hours.*

**\*138 Plant Biology** An introduction to the principles of biology as illustrated by plants, with emphasis on structure, activities, and reproduction of green plants. Does not satisfy the laboratory science distribution requirement. Cannot be counted toward the biology major. Credit may not be obtained for both Biology 136 and 138. Enrollment limited. *Three credit hours.* MR. FOWLES

**[152] Plant Science** An introduction to the principles of biology as illustrated by plants. The course will emphasize expanding areas of biotechnology. Practical applications in areas such as propagation (including tissue cultures), pruning, hormonal control of development, lighting, and floriculture will be included in both lectures and laboratory exercises. May be used to satisfy the laboratory science requirement. Cannot be counted toward the biology major. Enrollment limited. *Four credit hours.*

**219 Environmental Science** Basic concepts in ecology are examined in detail at the population, community, and ecosystem levels. The relevance of these concepts to current environmental problems is stressed. Does not satisfy the laboratory science distribution requirement. Cannot be counted toward the biology major. Enrollment limited. *Three credit hours.* MR. COLE

**271 Introduction to Ecology; Introduction to Evolution** Part I: introduction to ecological principles—structure and function of ecosystems, patterns of distribution, energy flow, nutrient cycling, and population dynamics. Field trips are taken to sites representative of local terrestrial, fresh-water, and marine ecosystems. Part II: introduction to the scope, significance, and mechanisms of evolution. Lecture and laboratory. *Prerequisite:* Biology 121, 122, or equivalent. *Four credit hours.* MR. FIRMAGE, MR. COLE, AND MR. GREENWOOD

**272 Cell Biology** An introduction to the study of cellular and molecular biology: an examination of the structure and function of nuclear and cytoplasmic components, with emphasis on experimental findings. Instruction in basic histological and cytochemical techniques is included, in addition to studies of selected cellular properties. Lecture and laboratory. *Prerequisite:* Biology 121, 122, 271, or equivalent and Chemistry 141, 142 (may be taken concurrently), or permission of the instructor. *Four credit hours.* MR. CHAMPLIN AND MR. FEKETE

**[311] Taxonomy of Flowering Plants** An introduction to the study of variation, evolution, and classification of flowering plants, and the techniques used by systematists in establishing relationships among plants. Identification of

specimens that characterize the major families of flowering plants represented in the local flora is stressed. Lecture and laboratory. *Prerequisite:* Biology 271 and 272, or permission of the instructor. *Four credit hours.*

**[312] Vertebrate Zoology** A study of the vertebrates with emphasis on functional anatomy, natural history, and evolutionary relationships. The adaptive strategies of vertebrates to interactions with their environment are considered. Species common to New England are emphasized. Lecture and laboratory. *Prerequisite:* Biology 271 and 272, or permission of the instructor. *Four credit hours.*

**314 Plant Physiology** The essential mechanisms of plant functions. Lecture and laboratory. *Prerequisite:* Biology 271 and 272, or permission of the instructor. *Four credit hours.* MR. FOWLES

**315 Animal Cells, Tissues, and Organs** Comparative studies of the organization of cells into tissues and organs in animals. Vertebrate systems are covered in detail; some invertebrate animals are also considered. Emphasis is on the relationship between cellular morphology and tissue and organ function. Laboratories emphasize the microanatomy of mammalian tissues and tissue culture techniques. Lecture and laboratory. Formerly listed as Biology 397. *Prerequisite:* Biology 271 and 272, or permission of the instructor. *Four credit hours.* MR. GREENWOOD

**[316] Invertebrate Zoology** The morphology, functional anatomy, physiology, and classification of the invertebrates. Lecture and laboratory. *Prerequisite:* Biology 271 and 272, or permission of the instructor. *Four credit hours.*

**318 Microbiology** The biology of bacteria, viruses, and microscopic eukaryotic organisms. The aims of the course are to develop general knowledge in this area and to give practical experience in techniques. Lecture and laboratory. *Prerequisite:* Biology 271 and 272, or permission of the instructor. *Four credit hours.* MR. FEKETE

**[319] Biology of the Lower Plants** Comparative studies of the morphology, development, physiology, and significance of algae, fungi, bryophytes, and ferns. Lecture and laboratory. *Prerequisite:* Biology 271 and 272, or permission of the instructor. *Four credit hours.*

**322 Developmental Biology** A study of development, with emphasis on the experimental findings that have led to present ideas of the morphological and chemical processes underlying the development and growth of organisms. Lecture and laboratory. *Prerequisite:* Biology 271 and 272, or permission of the instructor. *Four credit hours.* MISS BENNETT AND MR. CHAMPLIN

**\*337 The Reproductive Biology of Flowering Plants** A study of the flowering process in various plant groups and the mechanisms of pollination they employ. Seed production and dispersal as well as vegetational propagation strategies will be considered. Lecture and laboratory. *Prerequisite:* Biology 271 and 272, or permission of the instructor. *Four credit hours.* MR. FIRMAGE

**352 Ecological Theory** An examination of the theoretical aspects of population and community ecology, emphasizing population regulation, demography, trophic

relationships, community structure and organization, and succession. Coevolutionary interactions between plants and animals are considered. Relevance of ecological theory to the solution of environmental problems is discussed. Lecture and discussion. Augmented credit based on the addition of laboratory work. *Prerequisite:* Biology 271 and 272, or permission of the instructor. Lecture only: *three credit hours*; lecture and laboratory: *four credit hours*. MR. FIRMAGE AND MR. COLE

**f[354] Marine Biology** A study of marine organisms and their environment with emphasis on coastal systems. Laboratory exercises will familiarize students with marine organisms, their environment, and the quantitative methods used to study them. Occasional weekend field trips to the coast. Lecture, laboratory, and discussion. *Prerequisite:* Biology 271 and 272, or permission of the instructor. *Four credit hours*.

**358j Ecological Field Study** Intensive study in a south temperate or tropical area during the spring recess or the January term. Students must cover expenses. Limited scholarship funds are available. Nongraded. *Prerequisite:* Permission of the instructors. *Three credit hours*. FACULTY

**371 Genetics** The mechanisms of inheritance, with emphasis on experimental findings. The physical and chemical bases for the behavior of genes in individuals and populations are examined. *Prerequisite:* Biology 271 and 272, or permission of the instructor. Lecture only: *three credit hours*; lecture and laboratory: *four credit hours*. MR. CHAMPLIN

**372 Cellular Dynamics** Investigations of major active and passive processes of eukaryotic cells. Emphasis is on various aspects of thermodynamics and cellular energetics, including the dynamics of respiration and photosynthesis, transport mechanisms, motility, cellular communication, and second-messenger systems. Laboratory exercises investigate many of the processes discussed in lecture. Lecture and laboratory. Formerly listed as Biology 398. *Prerequisite:* Biology 271 and 272 or permission of the instructor. *Four credit hours*. MR. GREENWOOD

**373 Animal Behavior** An examination of animal behavior from a biological perspective. Topics include the control, development, function, and evolution of behavior. *Prerequisite:* Biology 271 and 272, or permission of the instructor. Formerly listed as Biology 378. Lecture only: *three credit hours*; lecture and laboratory: *four credit hours*. MR. LABOV

**374 Topics in Neurobiology** Lectures, discussions, and readings on the functional organization of nervous systems, and on how nervous information is received, coded, stored, and transmitted by living organisms. Augmented credit of one hour based on the addition of laboratory work. *Prerequisite:* Biology 271 and 272, or permission of the instructor. Formerly listed as Biology 377. Lecture only: *three credit hours*; lecture and laboratory: *four credit hours*. MR. LABOV

**375 Problems in Comparative Animal Physiology** Studies of the manners in which animals of major phyla cope with their functional problems. Both ecological and evolutionary correlations are stressed. Lecture only. Augmented credit of one hour based on the addition of laboratory studies emphasizing the methods of comparative physiology. *Prerequisite:* Biology 271 and 272, or



permission of the instructor. Lecture only: *three credit hours*; lecture and laboratory: *four credit hours*. MISS BENNETT

**379 Electron Microscopy** Principles and practice of transmission and scanning electron microscopy, including electron optics, imaging, and x-ray microanalysis. The routine operation of both the TEM and SEM are presented and practiced, as are the principles and techniques of sample preparation from living materials. The interpretation and evaluation of electron photomicrographs are emphasized. Students have an opportunity to develop further their techniques and expertise in the area of greatest interest to them. Enrollment limited. Lecture and laboratory. *Prerequisite:* Biology 121, 122, Chemistry 141, 142, standing as a junior or senior major in one of the natural sciences, and permission of the instructor. *Four credit hours*. MR. CHAMPLIN

**393, 394 Biology Seminar** Discussion of contemporary topics in biology. Choice of several topics. *Prerequisite:* Junior or senior standing as a biology or geology-biology major. *One credit hour*. FACULTY

**473 Topics in Molecular Biology** Detailed considerations of the molecular biology of prokaryotic and eukaryotic cells. Topics include molecular evolution; virology and oncogenesis; molecular basis of metabolism, contractility, membrane systems, and bioenergetics; enzymes; and molecular immunology. Lecture and laboratory. *Prerequisite:* Biology 271 and 272, Chemistry 241, 242 (may be taken concurrently), or permission of the instructor. *Four credit hours*. MR. FEKETE

**491, 492 Independent Study** Normally open only to senior biology majors. *Prerequisite:* Permission of the department. *One to four credit hours*. FACULTY

**493 Problems in Environmental Science** Causes of and solutions to selected environmental problems are studied through lectures, discussions, and guest presentations. Group projects are conducted to teach methods used by private firms and governmental agencies to investigate environmental problems. Enrollment limited. *Prerequisite:* Permission of the instructor. *Four credit hours*. MR. FIRMAGE, MR. COLE, AND MR. FEKETE

## Black Studies

*Director*, ASSISTANT PROFESSOR CHERYL TOWNSEND GILKES

ADVISORY COMMITTEE: *Professors Charles Bassett (American Studies and English), Roger Bowen (Government and East Asian Studies), Patrick Brancaccio (English and Performing Arts), Cedric Bryant (English), William Cotter (Government), Henry Gemery (Economics), Gilkes (Sociology and Black Studies), Beverly Hawk (Government), Paul Machlin (Music), Phyllis Mannocchi (English), Robert Reuman (Philosophy), Jonas Rosenthal (Sociology), John Sweney (English), and Robert Weisbrot (History); also Edward Blackwell (Associate Dean of Students), Frances Parker (Associate Director, Library), Darryl Scott (Assistant Dean of Admissions), and two student representatives*

Activities in the area of black studies began at Colby in 1969 with the formation of a black studies subcommittee of the educational policy committee. The work of the committee has involved curriculum development, scholarly exchanges through

visiting lecturers, faculty attendance at professional meetings, exchanges of students, and faculty visits to other colleges to keep abreast of developing programs.

Students may elect an independent concentration in black studies built upon courses in African and Afro-American history, literature, economics, and government, and in Afro-American music and sociology. The program exposes students to the history and culture of blacks in Africa and throughout the African Diaspora.

#### Requirements for the Concentration in Black Studies

Seven courses with at least two courses at the 300 or 400 levels. Courses elected should include two focusing on Africa, two on the Afro-American experience, either a seminar or an independent study, at least one course in history, one in a social science (anthropology, economics, government, psychology, sociology) or religion, and one in literature.

Interested students are also encouraged to consider an independent major in black studies.

#### Courses Offered in Black Studies

*American Studies:* 276 Black Culture in America.

*Anthropology:* 112 Cultural Anthropology; 314 Seminar in Underdevelopment.

*Economics:* 293 Economic Development in the Third World; 319j Economics of Poverty and Income Distribution in the United States; 494 Senior Seminar in Demography.

*English:* 355 Black American Literature; 493j, 494j Senior Seminar, Black American Literature.

*History:* 124 Survey of United States History (1865-present); 197 Western Africa and the Atlantic World; 198 Eastern and Southern Africa and the Indian Ocean World; 277 Afro-American History; 319 Economic Change in Twentieth-Century Africa; 432 Senior Seminar, Black Thought and Leadership.

*Government:* 319 Law and Social Change: Women and Minorities

*Sociology:* 231 Contemporary Social Issues; 356 Afro-American Religious Experience.

*Music:* 133 American Music.

*Sociology:* 231 Contemporary Social Issues; 252 Race, Ethnicity, and Society; 355 Afro-American Women and Social Change; 356 Afro-American Religious Experience.

**491, 492 Independent Study** Individual study of special problems in black studies in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor and of the program director. *One to four credit hours.* FACULTY

## Chemistry

*Chairman,* PROFESSOR WAYNE SMITH

*Professor Smith; Associate Professor Thomas Shattuck; Assistant Professors Gary Mabbott, R. Daniel Libby, Carol Libby, and David Bourgaize*

Students in the chemistry department are provided a firm foundation in the fundamental principles of the discipline. The student major has access to a wide range of instruments for course work and research projects under supervision of a faculty that includes teaching specialists in biochemistry, organic, physical,

inorganic, and analytical chemistry. Many students go on to graduate school in chemistry or biochemistry or to careers in medicine, dentistry, health-related fields, and industrial research. Other career choices in recent years have included patent law, chemical engineering, environmental studies, computer sciences, and molecular biology.

The department offers several programs: (1) the chemistry major, (2) the chemistry-ACS major (accredited by the American Chemical Society), (3) the chemistry-biochemistry major, and (4) the chemistry-environmental sciences concentration. Of these majors, the ACS major is focused most sharply toward graduate work in chemistry. It should be noted that chemistry majors who intend to apply for admission to medical, dental, or veterinary schools must take a biology course with laboratory. For maximum flexibility, students are encouraged to take Chemistry 141 and 142 in their freshman year. All prospective majors should meet with the chairman as early as possible to plan their full chemistry programs.

Attention is called to the concentrations in public policy and in applied mathematics as well as the interdepartmental geology-chemistry major.

Students interested in teaching, private and public, are urged to read the education section of the catalogue and to contact a member of the education department.

#### **Requirements for the Major in Chemistry**

Chemistry 141, 142, 241, 242, 331, 341, 342, 493, 494; Mathematics 121, 122 or 123, 124; Physics 121, 122 or 132, 231.

#### **Requirements for the Major in Chemistry-ACS**

All courses required for the basic major, plus Chemistry 332, 411, 413, and six additional credit hours of 400-level courses. Substitution of upper-level courses from other departments in the science division is often possible.

#### **Requirements for the Major in Chemistry-Biochemistry**

Chemistry 141, 142, 241, 242, 341, 467, 468 (with laboratories), 493, 494; Mathematics 121, 122 or 123, 124; Physics 121, 122; Biology 121, 122, 272, and either Chemistry 378 or one additional biology course numbered 200 or higher.

#### **Requirements for the Concentration in Chemistry-Environmental Sciences**

All courses required for the chemistry major; Chemistry 217, 483, 484; Economics 133, 134, 231; Biology 121, 122 or Geology 141, 142.

#### **Requirements for the Concentration in Public Policy**

Chemistry 141, 142, 241, 242, 331, 341, 342; Economics 133; Government 111, 317; Mathematics 121, 122 (or 123, 124); Physics 121, 122; Public Policy 493; two courses selected from Economics 231, Government 273, 275, 392, or Economics 223 and 312, or Economics 223 and 332; an internship in the junior year.

#### **Additional Requirements for All Majors in Chemistry Department**

Each major must complete a chemistry-related independent study project equivalent to two (or preferably three) credit hours. Normally this requirement is satisfied through a January Program or summer research project and forms the basis of the seminar presentation. In certain cases, January Program courses may be substituted.

The point scale for retention of the major applies to all required courses and all elected chemistry courses. No requirement for the major may be taken pass/fail.

Seminars are held on Tuesday evenings; chemistry majors are expected to attend, and seniors are required to participate.

Majors in chemistry who have completed the required junior-level courses for the major may elect an honors research project with approval of a faculty sponsor

in the department. On successful completion of the work of the honors research program and of the major, their graduation from the College will be noted as being "With Honors in Chemistry." Attention is also called to the Senior Scholars program.

**112 Chemistry for Citizens** Basic chemical principles and their application to topics of current concern, such as environmental problems, energy, nuclear reactions, recycling, health, and consumerism. Intended as a course for nonscience majors. Students with prior credit for Chemistry 141 may not receive credit for Chemistry 112. Laboratory portion is optional *Three credit hours*. MR. SMITH

**112L Laboratory: Chemistry for Citizens** Chemistry 112 and 112L may be used to satisfy the laboratory science distribution requirement. Enrollment limited. *Prerequisite:* Concurrent enrollment in Chemistry 112 and permission of the instructor. *One credit hour*. MR. SMITH

**†[113j] Biochemistry of Exercise** Elementary theories of atomic and molecular structure are introduced and used in exploring the metabolic mechanisms of energy storage, utilization, and transfer involved in aerobic and anerobic exercise. Effects of nutrition and extent of training on strength, endurance, speed, and wieht control are discussed. The course is designed for (although not limited to) nonscience majors and may be used to satisfy the non-laboratory science distribution requirement. *Lecture. Two credit hours*.

**[115j] Radioactivity** The production, detection, uses, biological effects, and waste disposal of radioactive isotopes. Problems inherent in nuclear power considered in some depth. Designed for the nonscience major; will satisfy the non-laboratory science distribution requirement. *Three credit hours*.

**118 Biotechnology** Various aspects of biotechnology are explored, including the science behind this field; practical applications are considered, as well as the future impact of biotechnology. Intended as a course for nonscience majors, it is not appropriate for students majoring in chemistry or biology. Enrollment in laboratory is limited. *Lecture only: three credit hours*. *Lecture and laboratory (satisfies the laboratory science distribution requirement): four credit hours*. MR. BOURGAIZE

**†[131j] Forensic Chemistry** The literature of popular authors such as Arthur Conan Doyle and Dorothy Sayers serves as a source for discussion of the chemical principles underlying the toxicology and methods of analysis related to crime and chemistry. Historical and current chemical perspectives on such topics as: properties and mechanisms of poisons, fiber, blood and stain identification, trace metal analysis, detection of explosives and fire accelerants. Intended for nonchemistry majors. *Two credit hours*.

**141, 142 General Chemistry and Elementary Analysis** Fundamental principles, with examples selected from inorganic chemistry; stoichiometry; atomic theory; chemical bonding; thermochemistry; gases, liquids, and solids; solutions; chemical equilibria; electrochemistry; chemistry of certain important elements; radioactivity. *Lecture, discussion, and laboratory*. The first-semester laboratory is concerned with synthesis and gravimetric analysis, the second with volumetric analysis and qualitative analysis. *Four credit hours*. CHEMISTRY 141: MR. MABBOTT AND MR. LIBBY; CHEMISTRY 142: MR. SHATTUCK AND MR. SMITH

**†[217] Environmental Chemistry** Application of chemical principles to such topics as fates and toxicity of heavy metals and organic pollutants in soils and natural water systems, corrosion, complexation, and analytical techniques. *Prerequisite:* Chemistry 142. *Three credit hours.*

**[231j] Gas Chromatography/Mass Spectrometry** The principles of operation and modern analytical practices, including chromatographic theory, mass spectrometric instrumentation, and the interpretation of mass spectra. Laboratory exercises in column preparation, flow rate effects on resolution, quantitative methods of analysis, optimization strategies, computer data manipulations, head space analysis, and amino acid analysis. Lecture and laboratory. Enrollment limited to 12. *Prerequisite:* Chemistry 241. *Two credit hours.*

**241, 242 Organic Chemistry** Theories encountered in Chemistry 141, 142 are used as the basis for a detailed mechanistic study of the relationships among structure, reactivity, and synthesis of organic compounds. Lecture, discussion, and laboratory. The laboratory explores the use of separation techniques, synthesis, and spectral techniques in organic chemistry. *Prerequisite:* Chemistry 142. *Five credit hours.*  
CHEMISTRY 241: MR. LIBBY; CHEMISTRY 242: MS. LIBBY

**331 Chemical Methods of Analysis** A study of fundamentals of analytical chemistry. Lectures are devoted to principles underlying chemical analysis; acid/base, redox, and complex equilibria; and quantitative treatment of data. *Prerequisite:* Chemistry 142. *Four credit hours.* MR. MABBOTT

**332 Instrumental Methods of Analysis** Instruction in instrumental methods, including modern electroanalytical methods, absorption spectroscopy, fluorescence, nuclear magnetic and mass spectrometry, and chromatography. *Prerequisite:* Chemistry 331, 342 (may be taken concurrently). *Four credit hours.* MR. MABBOTT

**341, 342 Physical Chemistry** The laws and theories of chemical reactivity and the physical properties of matter. Emphasis is placed on chemical equilibrium, molecular bonding, and the rates of chemical reactions. Major topics in 341: thermodynamics, solutions, and reaction kinetics; in 342: quantum mechanics, spectroscopy, and statistical mechanics. *Prerequisite:* Chemistry 142, Physics 122 and Mathematics 122 or 124. *Five credit hours.* MR. SHATTUCK

**378 Nucleic Acids** Structure and synthesis of both DNA and RNA are considered, as well as protein synthesis, mechanisms of gene expression, and recombinant DNA techniques. *Prerequisite:* Chemistry 242 (may be taken concurrently). *Three credit hours.* MR. BOURGAIZE

**411 Inorganic Chemistry** Current models and concepts in inorganic chemistry, with emphasis on both structural and reaction aspects. Topics include bonding and structure, periodic properties, acid-base theories, nonaqueous solvents, applications of thermodynamics, coordination compounds, and selected areas of descriptive chemistry of current interest. Lecture and discussion. *Prerequisite:* Chemistry 342. *Four credit hours.* MR. SMITH

**413 Integrated Laboratory Studies** Synthesis and characterization of organic, inorganic, and organo-metallic compounds. *Corequisite:* Concurrent enrollment in either Chemistry 411 or 431. *One credit hour.* MR. LIBBY AND MR. SMITH

**431d2 Physical Organic Chemistry** Qualitative molecular orbital theory is used to study the effects of orbital symmetry on the course of pericyclic reactions. Physical methods for determining organic reaction mechanisms are also explored. Lecture. *Prerequisite:* Chemistry 242, 342 (may be taken concurrently). *Three credit hours.* MR. LIBBY

**432d1 Advanced Organic Chemistry** The logic and methods of organic synthesis are explored. The elementary organic reactions studied in Chemistry 241, 242 are augmented and used in the synthesis of biologically and chemically important molecules. The logic of designing synthetic pathways is stressed. Lecture. *Prerequisite:* Chemistry 242 or equivalent. *Three credit hours.* MR. LIBBY

**434 Advanced Physical Chemistry** Use of principles of symmetry and group theory as an aid in understanding chemical bonding and interpreting molecular spectroscopy. Reaction mechanisms of transition-metal complexes and organometallics. *Prerequisite:* Chemistry 411. *Three credit hours.* MR. SMITH

**467, 468 Biochemistry** Chemical components of living matter and of the major processes of cellular metabolism, including the fundamental chemical characteristics of biological compounds and enzymatic reactions. Biology 121, 122 are recommended as preparation. *Prerequisite:* Chemistry 242. Lecture only: *three credit hours*; lecture and laboratory: *five credit hours.* CHEMISTRY 467: MR. BOURGAIZE; CHEMISTRY 468: MS. LIBBY

**483, 484 Special Topics in Environmental Chemistry** Primarily a laboratory course with emphasis on independent studies of environmentally related topics. A paper and oral presentation are required. *Prerequisite:* Chemistry 217 and permission of the department. *One to three credit hours.* MR. MABBOTT

**491, 492 Independent Study** Laboratory work of a research nature may be arranged with the instructor. Three to nine hours per week. *One to three credit hours.* FACULTY

**493, 494 Seminar** Discussion of topics of current interest in all areas of the chemical literature. *Prerequisite:* Permission of the instructor. *One credit hour.* FACULTY

## Chinese

*In the department of modern foreign languages. All courses in Chinese are part of the East Asian studies program.*

**125, 126 Elementary Chinese** Introduction to spoken and written Mandarin Chinese, to provide a thorough grounding in all the language skills: speaking, listening, reading, and writing. *Five credit hours.* INSTRUCTOR

**127, 128 Intermediate Chinese** A continuation of Chinese 126, with greater emphasis on written Chinese. *Prerequisite:* Chinese 126. *Four credit hours.* INSTRUCTOR

**252 Introduction to Chinese Literature in Translation** A survey of Chinese literature in translation from ancient times to the present, covering poetry, plays, novels, and/or prose. *Three or four credit hours.* INSTRUCTOR

**321, 322 Advanced Chinese** Advanced Chinese language, concentrating on reading, writing, and speaking. *Prerequisite:* Chinese 128 or permission of the instructor. *Three or four credit hours.* INSTRUCTOR

**491, 492 Independent Study** Individual projects in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *Two to four credit hours.* FACULTY

## Classics

*Additional courses offered by the classics department are listed separately under "Ancient History," "Greek," and "Latin."*

*Acting Chairman, PROFESSOR DOROTHY KOONCE*

*Professors Peter Westervelt<sup>1</sup> and Koonce; Visiting Instructor Henry Walker; Taylor Lecturer Ann Blasingham*

Students in classics may concentrate in either Greek or Latin literature and civilization or in a combination of both. A wide variety of courses in both fields is provided through the Taylor Lectureship in Classics, which brings a different specialist each year to teach in his or her chosen area of interest. There is also the opportunity to study for a year in Greece or Rome in programs especially designed for American students, as well as occasion for experience in field archaeology through arrangement with other institutions.

### **Requirements for the Major in Classics**

Two courses numbered 200 or higher in Greek or Latin. Six additional courses selected from at least two of the following categories: two or more courses numbered 300 or higher in the ancient language elected above; two or more courses in ancient history; two or more courses numbered 200 or higher in the other ancient language; two or more courses elected from Classics 177, 178, 232, 234, Art 311, Philosophy 331, or the equivalent.

The point scale for retention of the major applies to all courses in the department. No requirement for the major may be taken pass/fail.

### **Requirements for the Major in Classics-English**

In classics: either three years of Latin in courses numbered 200 or higher or three years of Greek.

In English: six semester courses approved by the departments.

### **Requirements for the Major in Classics-Philosophy**

In classics: either three years of Latin in courses numbered 200 or higher or three years of Greek, subject to departmental approval.

In philosophy: 152; 111 or 211; 331, 332; 491 or 492.

The point scale for retention of each of the above majors applies to all courses that may be credited toward the major. No requirement for the major may be taken pass/fail.

The **Classical Civilization Program** is presented for students with an interest in ancient culture who do not wish to pursue study of the ancient languages. In addition to courses in classical literature in translation, ancient history, art, and

philosophy, as listed in the catalogue, special courses in various aspects of antiquity are given each year by the Taylor Lecturer in residence. In recent years, these have included Greek and Roman religion, Greek and Roman archaeology, Byzantine history, mythology, and literary criticism. Courses in the program (not a major) are: Classics 133, 232, 234; Ancient History 151, 154, 252, 352, 353; Art 311; Philosophy 331; Classics 177, 178; and Ancient History 177, 178 (177, 178 is a sequence offered each year by the Taylor Lecturer in residence).

The following are courses in classical literature in translation. These courses require no knowledge of Latin or Greek. Attention is called also to courses in ancient history.

<sup>1</sup>On leave full year.

**133 Greek Myth and Literature** Readings will focus on the development of a few well-known myths and will include Homer's *Odyssey*, selections from the lyric poets, and representative tragedies of Aeschylus, Sophocles, and Euripides. *Three or four credit hours.* MR. WALKER

**[177, 178] Topics in Classics** The offerings vary depending upon the particular field of the Taylor Lecturer. May be repeated for credit. *Two or three credit hours.*

**†[232] Greek Tragedy** The development of tragedy as a dramatic form and its relationship to the contemporary changes in Athenian democracy. Readings will include major plays of Aeschylus, Sophocles, and Euripides, and the parody of tragedy in the *Frogs* of Aristophanes. *Three or four credit hours.*

**†[234] The Heroic Ideal in Early Greek Poetry** Particular emphasis on Homer's *Iliad* and the odes of Pindar, with some attention to modifications of the heroic ideal that appear in Attic tragedy. *Three or four credit hours.*

**491, 492 Independent Study** Individual projects in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *One to three credit hours.* FACULTY

## Computer Science

*In the department of mathematics. A concentration in computer science is offered. See "Mathematics."*

*Visiting Assistant Professor Bruce Frech*

**125d Introduction to Computer Science I** An introduction to computer science focused on problem solving and programming using the PASCAL language. Algorithm development, control structures, and data structures and their implementation in PASCAL. *Four credit hours.* MR. FRECH

**[126] Introduction to Computer Science II** A continuation of Computer Science 125. Concentration on advanced programming techniques, including dynamic data structures and recursion. The theory and analysis of algorithms and applications of finite automata will be introduced. *Prerequisite:* Computer Science 125 or permission of the instructor. *Four credit hours.*



**132 Computer Organization and Assembly Language** Introduction to computer organization (memory, processors, input/output, virtual machines) and assembly language (data representation, machine instructions, system calls). *Prerequisite:* Computer Science 125 or permission of the instructor. *Three or four credit hours.* MR. FRECH

**231 Data Structures and Algorithms** An introduction to the primary data structures and the algorithms that operate on them. Data structures to be studied include arrays, graphs, trees, stacks, and queues. The algorithms include searching, sorting, insertion, deletion, and traversal. *Prerequisite:* Computer Science 125. *Three or four credit hours.* MR. FRECH

**378 Introduction to the Theory of Computation** Listed as Mathematics 378 (q.v.). *Three credit hours.* INSTRUCTOR

**491, 492 Independent Study** Independent study in an area of computer science of particular interest to the student. *Prerequisite:* Permission of the instructor. *One to four credit hours.* FACULTY

## Creative Writing

*Director,* PROFESSOR IRA SADOFF

ADVISORY COMMITTEE: *Professors Robert Farnsworth (English), Peter Harris (English), Susan Kenney (English), Sadoff (English), and James Boylan (English)*

A concentration in creative writing may be elected by students majoring in any department of the College. The concentration is designed to enhance existing major programs, to add structure and a sense of purpose to those students already committed to creative writing, and to encourage the consideration of serious graduate writing programs.

### Requirements for the Concentration in Creative Writing

The concentration consists of at least one introductory, one intermediate, and one advanced writing course, plus either an independent study (in which the student will write and revise a portfolio of poems or stories) or the repetition of the advanced writing course incorporating the portfolio requirement. The portfolio, like an honors thesis, is to be read and approved by two creative writing teachers.

Students will take three allied courses in the English department (in consultation with the student's adviser); these courses will be useful to the student's development as a writer. For example, a fiction-writing student might take the Short Story, the Modern American Novel, or Contemporary Fiction; a poetry-writing student might elect The Romantics, the Seventeenth Century, Modern American Poetry, or Contemporary American Poetry.

No requirement for the concentration may be taken pass/fail.

## East Asian Studies

*Director,* ASSISTANT PROFESSOR TAMAE PRINDLE

ADVISORY COMMITTEE: *Professors Roger Bowen (Government), Constance Cook (East Asian Studies), Lee Feigon<sup>1</sup> (History), David Keenan<sup>1</sup> (Chinese), Prindle (Japanese), David Sensabaugh (Art and East Asian Studies), Nikky Singh (Religion), You Li Sun (East Asian Studies)*

The East Asian studies major contributes a new dimension to the traditional liberal arts curriculum by exposing the student to rich cultures outside the scope of Western civilization. Study abroad during the junior year is strongly encouraged; see "Junior Year Abroad" for information about the Associated Kyoto Program, the CIEE Program in the People's Republic of China, the Colby program in Beijing, and Colby's exchange agreement with Kansai University of Foreign Studies in Japan. Other foreign study possibilities include Hong Kong and Taiwan.

#### **Requirements for the Major in East Asian Studies**

A minimum of two years of training in an East Asian language, East Asian Studies 151, 152, and 13 additional credit hours obtained from courses in East Asian studies in at least three different disciplines, to include at least one seminar or independent study project in the major.

The point scale for retention of the major applies to all courses offered toward the major. No requirement for the major may be taken pass/fail.

#### **Courses in East Asian Studies Approved for the Major**

*Chinese:* 125, 126 Elementary Chinese; 127, 128 Intermediate Chinese; 252 Introduction to Chinese Literature in Translation; 321, 322 Advanced Chinese; 491, 492 Independent Study.

*East Asian Studies:* 151, 152 Self, State, and Society in East Asia; 231, 232 Literatures of China and Japan in Translation; 458 Seminar in Modern Chinese History; 491, 492 Independent Study.

*Government:* 237 Political Development in Modern Japan; 254 Comparative Communism; 271 War and Revolution in Vietnam; 358 Contemporary Japanese Politics; 477 Seminar in East Asian Politics.

*History:* 215 America and Asia: Attitudes and Relationships; 216 The Chinese Revolution; 317 The Introduction of Marxism into China; 318 The People's Republic of China.

*Japanese:* 125, 126 Elementary Japanese; 127, 128 Intermediate Japanese; 321, 322 Advanced Japanese; 491, 492 Independent Study.

*Philosophy:* 255, 256 Indian Thought; 391, 392 Philosophy Seminar (when appropriate).

*Religion:* 211 Religions of India; 212 Religions of China and Japan; 213 Contemporary Asian Ideas and Values; 218 Buddhist Literature in Asia; 391, 392 Religion Seminar (when appropriate).

<sup>1</sup>On leave full year.

**151, 152 Self, State, and Society in East Asia** An introduction to the society and culture of East Asia, focusing on the elite and popular culture of the region as personified by the great historical personalities of China and Japan. Topics in the history, philosophy, religion, language, literature, and government of the area will be discussed. *Four credit hours.* MR. SENSABAUGH AND INSTRUCTOR

**[231, 232] Literatures of China and Japan in Translation** A critical examination of the literatures of China and Japan through the study of myth, fiction, drama, poetry, and essays in translation. In the first semester the course will focus on seminal masterpieces in both popular and classical traditions, seeking to discern what is unique and what is shared in both contexts. The second semester will continue with works from later periods, weighing the burden of the past on the writers of more recent times. *Four credit hours.*

**458 Seminar in Modern Chinese History** An examination of the recent Chinese reform movement in the light of the Marxist-Leninist tradition of the People's Republic of China. *Prerequisite:* Permission of the instructor. *Four credit hours.*  
INSTRUCTOR

**491, 492 Independent Study** Individual study of special problems in East Asian civilization, offered in the departments that participate in the program. *Prerequisite:* Permission of the instructor and the program director. *One to four credit hours.* FACULTY

## Economics

*Chairman,* PROFESSOR JAN HOGENDORN

*Professors Hogendorn, Henry Gemery, James Meehan, and Tom Tietenberg; Associate Professors Clifford Reid and Randy Nelson; Assistant Professors Fred Moseley, David Findlay<sup>1</sup>, Patrice Franko-Jones, and John Santos; Visiting Assistant Professor Yassamand Saadatmand; Instructor Bruce Vermeulen<sup>2</sup>; Visiting Instructor Alison Webb*

In addition to dealing with the study of business behavior, consumers, inflation, and unemployment, economic tools find increasing use in other social sciences, with the skills of the economist central to studies of sex, race discrimination, energy, technology, government behavior, environment, the population explosion, crime, and other issues of public and private life. The economics department provides a wide selection of courses with which to help analyze problems arising in these areas. The major prepares the undergraduate with a good background for employment and graduate work in numerous fields, including, in particular, business, law, government, and education.

Attention is called to the interdisciplinary concentrations in quantitative analysis and in public policy, to the honors program (see description under Economics 493), and to related courses such as History 319.

### Requirements for the Major in Economics

Economics 133, 134, 223, 224, 391; Mathematics 199 or 121; either Mathematics 231 or one of the two-course sequences 241, 242 or 381, 382; one of the senior seminars numbered Economics 431, 472, 494, or Public Policy 493; three additional courses (totaling at least nine credit hours) in economics, of which two must be numbered 300 or above (at least one of the 300-level courses must be taken at Colby). The comprehensive examination administered during the senior year must be passed. Administrative Science 311 may be used to satisfy the non-300-level elective requirement. Potential majors are strongly encouraged to take Economics 133 and 134 in their freshman year.

Students who wish to be recommended for graduate work in economics are urged to elect Economics 336, 393, and 431.

Seniors may be invited by the department to prepare a thesis in the second term, successful completion and defense of which will result in the degree being awarded "With Honors in Economics."

The point scale for retention of the major applies only to courses in economics and to Mathematics 231, except that Administrative Science 311 will be counted if substituted for a course in advanced economics in fulfilling the major requirement. No requirement for the major may be taken pass/fail.

### Requirements for the Major in Economics-Mathematics

Economics 133, 134, 223, 224, 336, 393, 472; one additional elective economics course

numbered 300 or above; Mathematics 124 or 222, 253, 381, 382; two additional elective mathematics courses numbered 300 or above.

The point scale for retention of the economics-mathematics major applies to all courses offered toward the major. No requirement for the major may be taken pass/fail.

<sup>1</sup>On leave second semester.

<sup>2</sup>Part-time, January only

**133d Principles of Microeconomics** Principles of microeconomics and their applications to price determination, industrial structure, poverty and discrimination, and public policy. *Four credit hours.* FACULTY

**134d Principles of Macroeconomics** Principles of macroeconomics and their applications: national product and income accounting, monetary and fiscal policy, inflation, unemployment, and growth. Students should take Economics 133d before 134d. *Four credit hours.* FACULTY

**[217, 218] Seminars: Economic Analysis and Policy** The methods of economic analysis studied in Economics 133, 134 will be applied to various matters of current economic policy. Each section will consider different policy problems, examples of which might include the economics of warfare, welfare, the mystique of growth, law and economics, energy problems, economics of transport and location, poverty and discrimination, the economics of education and medicine, and radical economics, including a critique of "orthodox" economic theory and an extensive reading of the current literature in radical economics. A description of the topics offered by section will be available at registration. *Prerequisite:* Economics 133 and/or 134 depending on offering. *Three or four credit hours.*

**223d Microeconomic Theory** The theory of the pricing, distribution, and allocation of resources in a market economy. Emphasis will be placed on the various meanings of economic efficiency. *Prerequisite:* Economics 133, 134. *Four credit hours.* MR. MEEHAN AND MR. REID

**224d Macroeconomic Theory** Analysis of the theories of national income determination, the factors affecting employment, and the price level. Emphasis is placed on the choice of fiscal and monetary policies and current issues in the conduct of stabilization policy. *Prerequisite:* Economics 223. *Four credit hours.* MR. SANTOS

**231d2 Environmental and Natural Resource Economics** An introductory survey course using economic analysis to explain the underlying behavioral causes of environmental and natural resource problems and to evaluate the policy responses to them. Topics covered include air and water pollution, toxic substances, the allocation of exhaustible mineral resources, and the inevitability and desirability of limiting economic growth. *Prerequisite:* Economics 133. *Three or four credit hours.* MR. TIETENBERG

**254j Women in the Labor Market** An examination of the past, present, and future economic status of women. Topics include the implications of changing economic and social roles of women for the division of labor in the family; the allocation of time of husband and wife between the household and the labor market; the impact of

rising female labor force participation on marriage, childbearing, and divorce; and economic explanations of sex differences in earnings and occupation, including the role of labor market discrimination in observed sex differences in market outcomes.

*Prerequisite:* Economics 133. *Two credit hours.* MR. SANTOS

**†[258] Business Cycles in United States History** A focus on three major periods of depression in United States history: the 1830-1840s, the 1870-1890s, and the 1930s. The objectives are to analyze the causes of the recurring depressions and to examine the effects of depressions on the structure of the economy, on government policies, and on the literature of the period. *Prerequisite:* Economics 134, or permission of the instructor. Cross-listed as American Studies 256. *Three credit hours.*

**[272]j European Economic History** The framework of economic analysis applied to European historical patterns and trends. Aspects of industrialization, capital accumulation, technological change, trade and migration, and effects of entrepreneurial and governmental decisions. *Prerequisite:* Economics 133, 134. *Three credit hours.*

**†[274] American Economic History** The framework of economic analysis applied to American historical patterns and trends. Aspects of industrialization, capital accumulation, technological change, trade and migration, and effects of entrepreneurial and governmental decisions. *Prerequisite:* Economics 133, 134. *Three or four credit hours.*

**275 Comparative Economic Systems** Examination of the structure and performance of planned and market economies, with emphasis on the former. Specific economies studied include those of Russia, China, Cuba, Japan, and Western Europe. *Prerequisite:* Economics 133, 134. *Four credit hours.* MR. MOSELEY

**277 International Finance** The analysis of international monetary relations. Topics include foreign exchange markets, capital flows, the balance of payments, adjustment to balance of payments disequilibrium, international monetary organizations, and monetary reform. *Prerequisite:* Economics 133, 134. *Three or four credit hours.* MS. SAADATMAND

**278d International Trade** The analysis of international trade. Topics include theories of international trade, the gains from trade, the impact upon factor incomes, commercial policy, commodity agreements and cartels, and international trade organizations. *Prerequisite:* Economics 133, 134. *Three or four credit hours.* MR. HOGENDORN

**293d2 Economic Development** The developing areas and their prospects for economic betterment. Analysis of the techniques involved and the problems to be encountered in the growth process. *Prerequisite:* Economics 133, 134. *Three or four credit hours.* MS. FRANKO-JONES

**[294] Urban and Regional Economics** Economic forces that shape the size, structure, and growth of cities; an assessment of the nature of urban problems and desirability of alternative solutions. Topics include urban transportation, housing, land use, racial conflict, and the current fiscal crisis. *Prerequisite:* Economics 133, 134. *Three or four credit hours.*

**312d1 Topics in Law and Economics** A seminar examining the common law and the legal system from the point of view of economic theory. The focus is on the effect of the legal system on allocation of resources, both as a substitute for and a complement to the market system. Specific topics to be examined include: the definition and allocation of property rights, the assignment of liability for accidents and defective products, and the role of damage remedies for breach of contract. Research paper required; may be done for fourth credit or as Economics 391. Enrollment limited. *Prerequisite:* Economics 223. *Three or four credit hours.*  
MR. TIETENBERG

**319j Economics of Poverty and Income Distribution in the United States** A close look at the official scope of poverty in the United States, and problems in defining and measuring poverty. Competing theories of poverty; empirical evidence concerning intergenerational poverty, welfare dependence, feminization of poverty, and race and sex discrimination. History of anti-poverty programs, the impact of recent budgetary changes, and options to policy reform for cash and in-kind programs, i.e., AFDC, housing, health care, and social security. Problems and prospects for education, training, and other employment-oriented solutions. *Prerequisite:* Economics 134, 223. *Two credit hours.* MR. VERMEULEN

**331 Industrial Organization and Antitrust Economics** An examination of the structure, conduct, and performance of American industries to determine if the market process efficiently allocates resources to meet consumer demand. An economic analysis of the antitrust laws and an evaluation of their performances. Reference will be made to specific industries and cases. *Prerequisite:* Economics 223. *Three or four credit hours.* MR. MEEHAN

**332 Regulated Industries** An examination of specific regulated markets and the rationale for regulation in each. The economic effects of regulation on price, cost of production, and quality of product or service will be explored. The success of regulation will be evaluated relative to the market outcome that would be expected in the absence of regulation. Research paper required; may be done for fourth credit or as Economics 391. *Prerequisite:* Economics 223. *Three or four credit hours.* MR. MEEHAN

**336d1 Mathematical Economics** An examination of selected topics in economic theory using higher mathematics including advanced calculus, linear algebra, and set theory. Topics include the development of portions of consumer and producer theory, the study of static and dynamic models from macro theory and international finance, and the consideration of general equilibrium analysis. Cross-listed as Mathematics 336. *Prerequisite:* Economics 223 and 224 and Mathematics 124 or 222. *Three or four credit hours.* MS. SAADATMAND

**338d1 Money, Banking, and Monetary Policy** An examination of the monetary theory, the banking system, and the monetary policy of the United States. Topics include the organization and operation of the banking firm; an analysis of the changing environment and regulations of the banking industry; the determination and role of interest rates; the structure, role, and independence of the Federal Reserve System; and the implementation and evaluation of monetary policies. A ten-page research paper or Economics 391 required. *Prerequisite:* Economics 224 (a statistics course is strongly advised). *Three or four credit hours.* MR. FINDLAY

**351d2 Public Finance** Economics of the public sector. Topics include trends in and theories of government spending, externalities, voting mechanisms, social security, welfare programs, tax structure, and tax reform. *Prerequisite:* Economics 223. *Three or four credit hours.* MR. REID

**355 Labor Market Economics** Wage determination and allocation of human resources in union and nonunion labor markets. Theories of labor supply, labor demand, and human capital investment; related public policy issues, such as minimum wage laws, income maintenance, and discrimination. The operation of labor markets in the macroeconomy, with particular emphasis on the role of implicit and explicit labor contracts in explaining aggregate wage stickiness, inflation, and unemployment. *Prerequisite:* Economics 233, 234. *Three or four credit hours.* MR. SANTOS

**[376] Marxian Economic Theory** The Marxian theory of capitalist economies as presented in the three volumes of *Capital*. Marxian theory applied to analyze the current economic problems of unemployment, inflation, etc., and to assess the effectiveness of government policies to solve them. Comparisons between Marxian theory and the orthodox theories of micro- and macroeconomics. *Prerequisite:* Economics 224. *Three or four credit hours.*

**[379] Seminar in Environmental Economics** Current theoretical and empirical contributions to the field of environmental economics. Topics include economic incentives for environmental improvement, environmental control and economic growth, the theory of depletable resources, and the effects of environmental control on the new international economic order. *Prerequisite:* Economics 223. *Three or four credit hours.*

**391d Analytical Research Paper in Economics** An analytical, not descriptive, research paper in economics, to be coordinated with an elective economics course numbered above 250 in which the student is concurrently, or has previously been, enrolled. Required of all economics majors. *Prerequisite:* Permission of the instructor. *Two credit hours.* FACULTY

**393d Econometrics** Introduction to applied econometrics. Parameter estimation, inference, and hypothesis testing. Problems of designing econometric models. Research paper required; may be done for fourth credit or as Economics 391. *Prerequisite:* Economics 223 or 224, Mathematics 231 or 242 or 382. *Three or four credit hours.* MR. GEMERY

**431d2 History of Economic Thought** An examination and appraisal of the development of economic theory. Major writing from the mercantilist period through the Keynesian period is included. Extensive use of source material. Enrollment limited. *Prerequisite:* Economics 223, 224, and senior standing. *Three or four credit hours.* MR. GEMERY

**[472d] Senior Seminar in Mathematical Economics** An independent project on a topic of the student's choice, including critical reading of topical articles, and focusing on the preparation and mathematical analysis of a pertinent economic model. *Prerequisite:* Economics 336 and senior standing as an economics or economics-mathematics major. *Three credit hours.*

**483, 484 Independent Honors Project** The culminating study for the year-long honors project for senior majors in economics and economics-mathematics; the completed research to be presented in both written and oral format. *Prerequisite:* Permission of the department. *Three credit hours.* FACULTY

**491, 492 Independent Study** Independent study devoted to a topic chosen by the student with the approval of the department. *Prerequisite:* Senior standing as economics major. *One to four credit hours.* FACULTY

**494d Senior Seminar** A seminar addressed to topics in public policy analysis, interdisciplinary issues, or research. Topics considered will change each semester; a complete description will be published before registration. Enrollment limited. *Prerequisite:* Senior standing as economics major. *Four credit hours.* FACULTY

## Education

*Chairman,* ASSOCIATE PROFESSOR PATRICIA RAMSEY

*Associate Professors Marilyn Mavrillac<sup>1</sup> and Ramsey; Assistant Professor Robert Pfeiffer<sup>1</sup>*

Education is an interdisciplinary concentration open to sophomores, juniors, and seniors. It provides all students with an opportunity to study education in general and schools in particular, seeking to inform and illuminate them on the large issues about education in society. Today education is a major national concern, calling for sound judgment from liberally educated citizens who understand the role of the schools. This is especially important for Colby graduates because they become leaders in American life—leaders who need to be enlightened and committed concerning the vital part education plays in the nation.

The education program also provides students with preparation needed to qualify for and succeed in graduate schools of education.

Finally, since its founding in 1813, Colby has prepared leaders for America's classrooms and for school administrative positions. The education program offers students an opportunity to qualify for careers and jobs in public and private schools, colleges, and universities. The College maintains that the best preparation for teaching is a strong background in the liberal arts, intensive study in the major, and appropriate teacher-education courses and practica.

The interdisciplinary concentration in education allows students to pursue studies in their fields of interest and simultaneously (1) to qualify fully for public and private secondary-school teaching and a teaching certificate in English, social studies, science, mathematics, Latin, American studies, and modern foreign languages or (2) to begin preparation for teaching other levels and teacher certification in early childhood, special subjects, elementary, and types of special education.

Colby's teacher-education program is approved by the State of Maine under the standards of the Interstate Certification Project. The Maine secondary-school teaching certificate is honored in many other states. Candidates for the Maine secondary-school teacher certificate must take qualifying examinations in communication skills, general knowledge, and professional knowledge. To receive an institutional recommendation for the teacher certificate, candidates must have



demonstrated serious commitment to teacher preparation, above-average academic performance in courses, and above-average teaching performance in the practica. No requirement for the certificate may be taken pass/fail.

### **Practica**

Early and continuous practical experience with learners is a major strength of Colby's education program. Career benefits include the development of a network of professional contacts, the opportunity to test career plans, and the accumulation of references valuable for later employment search.

Practica are the laboratory component in the education sequence and are available at several levels: elementary, middle and junior high, and senior high school. Specific practica are required for certification.

Students who plan to teach in public and private schools should elect the education concentration and confer with members of the education department as soon as possible. Career guidance and counseling services are also available at the education department offices.

### **Required Program of Studies for the Secondary-School Teacher Certificate (grades 7-12)**

Education 231, 433, and 435; one of the following: Education 251, 253, 254, 351, 353, or 354; Philosophy 333; Psychology 111 and 258. In addition, English 411 is required for students majoring in English, and Modern Foreign Languages 411 is required for students majoring in a modern foreign language.

<sup>1</sup>Part-time.

**[213d] School and Society** What is the role of the school in society? The course examines three case studies: Nazi Germany, with emphasis on the Holocaust and human behavior; Turkey, with focus on the Armenian genocide; and the United States, with concern for decision making in the nuclear age. *Prerequisite:* A cumulative grade point average of 2.5 or higher is expected. *Three credit hours.*

**231d The Craft of Teaching** What knowledge is of most importance? How should such knowledge be organized and taught? How is student achievement measured and evaluated? The general principles of curriculum planning and instruction, including the use of media and materials. Emphasis is on the scientific basis of the art of teaching. Each student will design a curriculum unit in a commonly taught elementary or secondary school subject. Directed participant-observer exercises in the area elementary and/or secondary schools. *Four credit hours.* MS. RAMSEY

**238 Theory and Practice of Counseling** Designed to introduce several theories of counseling to interested students with little or no prior experience in the field, this course includes student participation in theory-by-theory discussions, role plays, and practice sessions. The final few weeks include placement in social service and educational settings to observe professional counselors. *Three credit hours.* MR. PFEIFFER

**251j Practicum in Elementary School** Five days per week to be served as an assistant teacher in an elementary school, helping children to learn and working with cooperating teacher(s) and support personnel. Each student will maintain a journal, prepare sample lesson plans, and write critical evaluations. Nongraded. *Prerequisite:* Education 231 or permission of the instructor. *Three credit hours.* MS. MAVRINAC

**253, 254 Practicum in Elementary School** Five hours weekly to be served as an assistant teacher in a local elementary school; written exercises and evaluations via individual and group projects. Nongraded. *Prerequisite:* Education 231 or permission of the instructor. *Three credit hours.* MS. MAVRINAC AND MR. PFEIFFER

**294 Women in Professions** Historical analysis of American women's move into higher education and professions with French and English comparisons. Changing opportunities and norms will be discussed through common readings and individual projects and interviews. *Two or three credit hours.* MS. MAVRINAC

**[336] The American School** How has education transmitted culture across the generations, and how has it nurtured the development of the individual? What were the major turning points in the evolution of the American school, and how did the school relate to other institutions in society? How are schools organized and controlled, and how is power distributed and used—by whom? What factors shape a national system of education? The course centers on the United States but also examines other countries and their school systems. *Three credit hours.*

**351j Practicum in Middle and Junior High School** Five days per week to be served as an associate teacher in a junior high school, helping adolescents to learn and working with cooperating teacher(s) and support personnel. Each student will maintain a journal, prepare sample lesson plans, and write critical evaluations. Nongraded. *Prerequisite:* Education 231 or permission of the instructor. *Three credit hours.* MS. MAVRINAC

**353, 354 Practicum in Middle and Junior High School** Five hours weekly to be served as an associate teacher in a local junior high school; written exercises and evaluations via individual and group projects. Nongraded. *Prerequisite:* Education 231 or permission of the instructor. *Three credit hours.* MS. MAVRINAC AND MR. PFEIFFER

**433, [434] Student Teaching Practicum** Five hours weekly to be served as a student teacher in a local secondary school, working under the direct supervision of a cooperating teacher. Emphasis is on curriculum planning and instruction. Written exercises and evaluations via individual and group projects. Weekly seminar held on campus. Nongraded. *Prerequisite:* Education 231 and permission of the academic department and the instructor; a 3.0 grade point average in the major is expected in a commonly taught secondary school subject. *Four credit hours.* MS. RAMSEY

**435j Student Teaching: Practicum** Five days per week to be served as a student teacher in a secondary school, helping adolescents to learn and working with cooperating teacher(s) and support personnel. The student teacher is expected to assume full responsibility for teaching three classes daily, including planning and presenting unit and daily lesson plans, and testing and evaluating student performance. Nongraded. *Prerequisite:* Education 231 and permission of the academic department and the instructor. *Three credit hours.* MS. RAMSEY

**491, 492 Independent Study** Independent study of advanced topics and areas of individual interest. *Prerequisite:* Permission of the instructor. *One to four credit hours.* FACULTY

# English

*Chairman*, PROFESSOR CHARLES BASSETT

*Professors Mark Benbow, Douglas Archibald, Colin MacKay, Eileen Curran, Patrick Brancaccio<sup>1</sup>, Bassett, Howard Koonce, John Mizner, Edwin Kenney<sup>2</sup>, John Sweney<sup>3</sup>, Susan Kenney<sup>4</sup>, Ira Sadoff<sup>5</sup>, and Dianne Sadoff<sup>5</sup>; Associate Professors Peter Harris<sup>2</sup>, Phyllis Mannocchi<sup>2</sup>, Patricia Onion<sup>3</sup>, Jean Sanborn, Robert Gillespie<sup>5</sup>, and Natalie Harris<sup>5</sup>; Assistant Professors Linda Tatelbaum<sup>5</sup> and Lisa Low; Visiting Assistant Professors Robert Farnsworth<sup>5</sup>, Michael Staub, and James Boylan; Instructor Cedric Bryant; Visiting Instructors Aklilu Gebrewald<sup>5</sup>, David Mills<sup>5</sup>, Lorna Rooks-Hughes<sup>5</sup>, and Joylynn Wing*

The English department offers literature courses in all the periods, genres, and major authors, as well as seminars in particular topics and broad literary and historical issues. There is a creative writing program in both fiction and poetry at the introductory, intermediate, and advanced levels. The department also sponsors special-topic courses and supervises about 50 independent-study projects each year. Committed to interdisciplinary studies, the department encourages team-taught courses with colleagues in chemistry, government, history, philosophy, sociology, and other departments. English is one of the most useful preprofessional majors for those who want to attend graduate schools of law, medicine, and business, as well as for those seeking jobs in commerce, industry, and government. Some majors become college or school teachers; some go into related work, such as journalism, library science, or publishing. Students interested in teaching, private and public, are urged to read the education section of the catalogue and contact a member of the education department.

## **Requirements for the Major in English and American Literature**

For the class of 1989: English 152, 221, 222, 251, and eight courses numbered 300 or higher; English 252 may be substituted for one of the eight. At least three of these must be courses in which the major focus is upon literature written before 1800, and at least three must be courses in which the major focus is upon literature written after 1800. English 411 does not count toward the major.

Beginning with the Class of 1990: English 221, 222, 251, and eight courses numbered 300 or higher. English 252 may count as one of the eight. At least four of these must be courses in which the major focus is upon British literature written before 1900 and at least two must be courses in which the major focus is upon British literature written after 1900 or upon American literature. English 411 does not count toward the major. English 152 is strongly recommended.

The point scale for retention of the major applies to all English courses that may be used to fulfill major requirements. No requirement for the major may be taken pass/fail.

Students planning to continue the study of English in graduate school should confer with their advisers to be sure that they have planned a substantial and adequate curriculum. They should be proficient in at least one foreign language. Most universities require two languages, and some require a classical language as well. Work in classical or foreign literature, history, philosophy, art, music, and some of the social sciences reinforces preparation in the major and enhances one's chances of success in graduate study.

The department encourages interdepartmental and interdisciplinary studies, and supports programs in American studies, black studies, women's studies, and performing arts.

Attention is called to the concentration in creative writing described under the specific heading.

<sup>1</sup>Resident director, Colby in London Program.

<sup>2</sup>On leave first semester.

<sup>3</sup>On leave second semester.

<sup>4</sup>On leave full year.

<sup>5</sup>Part-time.

**111, 112 Writing Laboratory** Individual or small-group tutorial for students with basic language and/or writing difficulties, whether foreign students or native speakers of English. May be taken before English 115 for three credits or concurrently with English 115 for one credit. Nongraded. *One or three credit hours.* MS. SANBORN

**115d, 115j English Composition** Frequent practice in expository writing to foster clarity of organization and expression in the development of ideas. The assigned reading will vary from section to section, but all sections will discuss student writing. Required for freshmen unless exempted. *Four credit hours (three credit hours in January).* FACULTY

**152d, 152j Introduction to Literature** Poetry, prose, and drama from different times and cultures. Topics and texts will vary from section to section, but all sections will emphasize close reading, detailed analysis of imaginative literature, and careful critical writing. *Prerequisite:* English 115 or exemption. *Four credit hours (three credit hours in January).* FACULTY

**215j Advanced Expository Writing** Students will work on topics of their choice in a workshop setting; the content of the course will be determined by the needs of the students: length of time spent on the writing process, strategies for getting started, getting unstuck, and getting to completion. Culmination of the course will be production of one substantial polished piece of writing. *Three credit hours.* MS. SANBORN

**[216] Expository Writing Workshops** Workshops for students wishing to improve their ability to write on topics studied in other courses. Student papers will be presented for workshop criticism so that they may be revised. Focus on problems of stylistic consistency and force. May be repeated for additional credit. *Prerequisite:* English 115. *Four credit hours.*

**217d Creative Writing: Poetry** Introduction to the writing of poetry, with emphasis on student manuscripts. Enrollment limited. *Prerequisite:* English 115. *Three credit hours.* MR. FARNSWORTH

**218d Creative Writing: Fiction** Introduction to the writing of fiction, with emphasis on student manuscripts. Enrollment limited. *Prerequisite:* English 115. *Three credit hours.* MR. BOYLAN AND MR. FARNSWORTH

**221d, 222d Major British Writers** An introduction to British literature, with emphasis on detailed analysis and comparative readings, and some attention to the various methods of inquiry and attempts at understanding. 221: *Beowulf*

through Milton. 222: Dryden to the beginnings of the modern movement. *Three credit hours.* FACULTY

**251d Major American Writers I** An introduction to American literature—the Puritans to the Civil War—with emphasis on detailed analysis and comparative readings, and some attention to the various methods of inquiry and attempts at understanding. *Three credit hours.* FACULTY

**252d Major American Writers II** An introduction to American literature—the Civil War to the modern period—with emphasis on detailed analysis and comparative readings, and some attention to the various methods of inquiry and attempts at understanding. *Three credit hours.* FACULTY

**[275] The Art of the Narrative Film** The elements of structure, characterization, imagery, and style as they contribute to the awareness of meaning and to aesthetic response in various classic examples of filmmaking. *Three credit hours.*

**[276] Dante in Translation** The *Vita Nuova* and the *Divine Comedy*, drawing upon the philosophy, theology, art, and literature of the period. No knowledge of Italian required. *Three or four credit hours.*

**[278] Italian Fiction and Film** The fall of fascism and postwar Italy as interpreted by Italian writers and filmmakers. Readings in translation will be drawn from the works of Levi, Silone, Pavese, Vittorini, Lampedusa, and Calvino. Films will include the work of Rossellini, de Sica, Fellini, Visconti, Antonioni, and others. *Four credit hours.*

**[297j] Theater in London** This course will concentrate on the variety of theater available in London, including the subsidized repertory groups, the commercial theater in the West End, and fringe theaters and experimental groups. Students will be required to attend at least twenty productions. *One to three credit hours.*

**312 Literary Criticism** A study of contemporary theories of interpreting literature, including New Criticism, structuralism and semiotics, psychoanalysis, Marxism, reader response, and poststructuralism. How readers interpret literature, what values are assumed, and what operations are subconsciously applied to texts. The central literary text used is Conrad's *Heart of Darkness*. *Four credit hours.* MS. SADOFF

**317d Intermediate Poetry Workshop** Practice in the writing of poetry, with major emphasis on student manuscripts. *Prerequisite:* English 217 or 218 or permission of the instructor. *Three credit hours.* MR. FARNSWORTH

**318d Intermediate Fiction Workshop** Practice in the writing of short stories, with major emphasis on student manuscripts. *Prerequisite:* English 217 or 218 or permission of the instructor. *Three credit hours.* MR. BOYLAN

**331d2 The Middle Ages** The development of western European literature in the context of medieval intellectual and cultural history. Major English and continental works from such genres as epic, romance, allegory, and lyric will be studied from a comparative point of view. *Three credit hours.* MS. MANNOCCHI

[332j] **Poetry of the Later Renaissance** An intensive study of such poets as Donne, Jonson, Herbert, and Marvell, with special emphasis on public versus private modes, genre, and social and historical contexts. *Three credit hours.*

334 **Restoration Literature** The prose, poetry, and drama of 1660-1700, with special emphasis on the works of John Dryden. *Three or four credit hours.* MR. SWENEY

335 **The Romantic Period I: The Major Poets** An examination of the concerns of the age, emphasizing close readings of the text, treatises, documents, and letters of the major poets: Blake, Wordsworth, Coleridge, Shelley, and Keats. *Three credit hours.* MR. SADOFF

336j **The Romantic Period II: The Romantic Hero** Novels of different periods and literatures, in all of which the central characters reveal "romantic" ways of thinking, acting, and feeling: Goethe's *Sufferings of Young Werther*, Lermontov's *A Hero of Our Time*, Flaubert's *Madame Bovary*, Conrad's *Lord Jim*, Mann's *Death in Venice*, Fitzgerald's *The Great Gatsby*, and Hemingway's *The Sun Also Rises*. *Three credit hours.* MR. MIZNER

337 **Modern British Literature** The origins, nature, and achievements of the modern movement in England and Ireland. Major authors will include Hardy, Eliot, Yeats, Joyce, and Heaney. *Three credit hours.* MR. ARCHIBALD

[338] **Contemporary American Fiction** Recent trends in the American novel: the status of the American Dream, modernism, social realism, the metaphysical novel, and meta-fiction. Novels to be studied will include those by Saul Bellow, E. L. Doctorow, John Barth, Toni Morrison, William Kennedy, Joan Chase, Walter Abish, and others. An overview of the literary concerns of the age: its psychology, the status of the social institutions, attitudes toward sexuality and gender, class, and race. *Three credit hours.*

339d2 **Modern British Fiction** Representative British novels of the twentieth century by such writers as Conrad, Ford, Lawrence, Woolf, Forster, Waugh, Greene, and Lessing. *Three credit hours.* MR. KENNEY

351 **The American Renaissance I** The major works of Poe, Hawthorne, and Melville. *Four credit hours.* MR. SWENEY

[352] **The American Renaissance II** A close reading of the major works of Emerson, Thoreau, and Whitman, with particular emphasis on the transcendentalists' search for heightened consciousness and the connections between poetic and scientific truth. *Four credit hours.*

353 **The Realistic Imagination** Major works by Twain, Howells, James, Crane and others in the context of American traditions of the novel, and critical theories of the art and purpose of fiction. *Three credit hours.* MR. STAUB

354 **The American Short Story** A history-analysis of the genre that many critics consider the most consistently successful in American literature—the short story. Distinguished writers of short narratives will be studied, from Washington Irving

to Ann Beattie, with particular emphasis on such masters as Poe, Hawthorne, James, Hemingway, Salinger, and O'Connor. *Three credit hours.* MR. BASSETT

**355 Black American Literature** The major writing of black Americans, with emphasis on the fiction and poetry of the twentieth century. *Three credit hours.* MR. BRYANT

**[356] Modern American Fiction** Major works of American fiction since 1920—by Faulkner, Hemingway, Fitzgerald, Dos Passos, Steinbeck, Mailer, Nabokov, Bellow, and others—will be analyzed, emphasizing the pattern of experience of the protagonist in conflict with the modern world. *Three credit hours.*

**357 Modern American Poetry** Works of major twentieth-century American poets, including Robert Frost, T. S. Eliot, Ezra Pound, William Carlos Williams, Wallace Stevens, Marianne Moore, and Hart Crane. *Three credit hours.* MR. FARNSWORTH

**[358] Contemporary American Poetry** A study of some of the major poets since 1960. An examination of texts and contexts (historical, social, psychological, metaphysical, and formal) of the poetry, with a close look at the aesthetics of the various schools of poetry (the neo-surrealists, the neo-formalists, the political poets, the New York School poets, the meditative and narrative poets). Readings will include Bishop, Lowell, Rich, Glück, O'Hara, Wright, and Simic. *Three credit hours.*

**359 Modern American Drama** An analysis of representative plays from the American theater, especially in the twentieth century, including works by O'Neill, Miller, Williams, etc. *Three credit hours.* MS. WING

**[371] The Age of Pope and Swift** Selected works by Defoe, Pope, Swift, Gay, Fielding, and other major writers of the first half of the eighteenth century. *Three or four credit hours.*

**372 From Johnson through Blake** Selected works by Johnson, Goldsmith, Gray, Radcliffe, Austen, and Blake, read in the context of the shift from neo-classical to romantic structure and thought. *Three credit hours.* MS. LOW

**373 The Development of Dramatic Art I** An examination of plays in the Western world from Greece through the early Renaissance together with a study of how they were produced. *Three or four credit hours.* MR. KOONCE

**374 The Development of Dramatic Art II** A sequel to English 373 from the neoclassic through the modern periods. *Three or four credit hours.* MR. KOONCE

**[375] Studies in Pre-Modern Drama** Topics in this course will vary. Such topics as Roman comedy, Elizabethan revenge tragedy, Renaissance comedy of manners, and romantic drama, as well as other genres and/or individuals, will be studied in the context of production problems as well as literary content. *Three or four credit hours.*

**376 Studies in Modern Drama: Contemporary Women Playwrights** The focus is on traditional and non-traditional approaches to the creation of the dramatic text,

featuring, but not limited to, the work of American women playwrights. Suggested topics of critical inquiry will include collaborative techniques, structural and thematic approaches, and innovative use of dramatic language. Students may elect to participate in a production of one of the plays or to write a paper as a final project. *Three or four credit hours.* MS. WING

**377 Victorian Literature I** A study of the major novels of nineteenth-century England, exploring such themes as: the relations between the sexes; the Victorian family; gender, sexuality, and the unconscious; politics, culture, and society in relation to the self. Attention to fictional and narrative strategies, relation of narrators to authors and readers, forms of literary production, the nature of character, the history of women. Novels by Austen, Brontë, Dickens, Thackeray, Eliot, and Hardy. *Four credit hours.* MS. SADOFF

**378 Victorian Literature II: Victorian Autobiography** A study of the autobiographical impulse in the nineteenth century, working backwards from Gosse's *Father and Son* and Samuel Butler's *The Way of All Flesh*, through John Stuart Mill's *Autobiography*, George Meredith's *Modern Love* and *The Ordeal of Richard Feverel* (subtitled "a history of father and son"), and George Eliot's *Mill on the Floss*, to a few poems by Matthew Arnold and either Thackeray's *Pendennis* or Dickens' *David Copperfield*. *Four credit hours.* MS. CURRAN

[379] **Blake** Close reading of a wide selection of Blake's illuminated poems. Facsimiles and slides will be used in order to emphasize visual aspects of Blake's work. Most of the works to be studied were produced before 1800, and the course may be so classified. *Three or four credit hours.*

**383, 384 Studies in Shakespeare** Selected plays, with special attention to the intellectual background and to Shakespeare's development as a dramatist. *Prerequisite:* English 221 or permission of the instructor. *Four credit hours.* MR. BENBOW

**391 The Age of Chaucer** A brief survey of the popular literature of the late fourteenth century (lyrics, ballads, cycle plays, romances) as background for a study of Chaucer's major works—selected *Canterbury Tales*, the *Book of the Duchess*, the *Parliament of Fowls*, and *Troilus and Criseyde*. *Three credit hours.* MR. MACKAY

**392 Sidney and Spenser** The major works of these two Elizabethan authors, including Sidney's *Astrophel and Stella*, *An Apology for Poetry*, and selections from *The Arcadia*, and Spenser's *Shepherd's Calendar* and selections from *The Faerie Queene*. Readings will also be drawn from the poetry of Petrarca, Ariosto, Wyatt, and Surrey in an attempt to suggest the Renaissance background of Sidney and Spenser. *Three credit hours.* MR. MACKAY

**394 Milton** Major works of John Milton, including *Comus*, "Lycidas," "Arcopagitica," *Paradise Lost*, *Paradise Regained*, and *Samson Agonistes*. Special attention to Milton's reformist politics (including attitudes toward monarchy, censorship, free will, and the sexes). *Three credit hours.* MS. LOW

[397] **Modern and Contemporary Women's Fiction** The modern female tradition from the perspective of canonization and innovation. Issues about literary



precedence, experimentation in form and point of view, uses of autobiography, and social context; related readings in feminist literary theory. Writers such as Agnes Smedley, Zora Neale Hurston, Alice Walker, Virginia Woolf, Margaret Atwood, Charlotte Perkins Gilman, Doris Lessing, Marilynne Robinson, Louise Erdrich are included. *Three credit hours.*

**411 Teaching Writing and Reading** Theory and practice in teaching writing, close reading, and grammar, and in methods of class discussion and testing. Open to students in any major, whether or not pursuing the education program. May not be counted toward the major in English. Nongraded. *Three credit hours.* MS. SANBORN

**417 Advanced Poetry Workshop** Practice in the writing of poetry, with major emphasis on student manuscripts. May be repeated once for additional credit. *Prerequisite:* English 317 or 318 or permission of the instructor. *Four credit hours.* MR. SADOFF

**418d1 Advanced Fiction Workshop** Practice in the writing of short stories and longer fiction, with major emphasis on student manuscripts. May be repeated once for additional credit. *Prerequisite:* English 317 or 318 or permission of the instructor. *Four credit hours.* MR. SADOFF

**[432] History of the English Language** A brief study of the mechanism of speech—primarily to explain the connections between western European Romance and Germanic languages—followed by an examination of the major historical, social, literary, and linguistic reasons for changes in the sound, grammar, spelling, inflection, syntax, and vocabulary of the language from the Anglo-Saxon period to modern American English. *Three or four credit hours.*

**[436] African Prose** Fiction and autobiography dealing with such themes as African traditional culture and the coming of colonialism, the struggle for independence and the problems of development, and the reactions of Africans to the United States. Readings will be restricted to the works of authors writing in English, such as Chinua Achebe, Ezekiel Mphahlele, Peter Abrahams, James Ngugi, Stamlake Samkange, and Bessie Head. *Three credit hours.*

**[437] The Literature of Existentialism** Though emphasizing the novels and plays of Sartre and Camus, this course also includes works by Dostoevsky, Tolstoy, Melville, Conrad, Beckett, Ionesco, Pinter, Abé, and Percy. Students enrolled for four credits will do fewer written assignments if they produce one of the plays studied. *Three or four credit hours.*

**491, 492 Independent Study** Individual projects exploring topics for which the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Consent of a project adviser and permission of the chairman. *One to four credit hours.* FACULTY

**493, 493j, 494 Seminars in British and American Literature** Topics for 1988-89 include "Confessions: The Confessional Novel"; "Victorian Short Fiction"; and "American Short Fiction." Descriptions will be published before registration. *Three or four credit hours.* FACULTY

## Environmental Science

*Directors, Professors F. Russell Cole (Biology), David Firmage (Biology), Harold Pestana (Geology), and Wayne Smith (Chemistry)*

Colby offers concentrations in environmental science within the departments of biology, chemistry, and geology. Each concentration is an interdisciplinary program intended to prepare students for entry level positions in firms or government agencies concerned with environmental issues, for graduate study in environmental science and related disciplines, or for a role as an educated citizen in a world increasingly confronted with environmental problems. Students are encouraged to participate in relevant field study or internships as part of a January Program or during the summer to complement their academic work. The three environmental concentrations emphasize the scientific foundation which must underlie environmental planning and decision making, and are supported by state-of-the-art facilities and equipment available to all science students at the College. For further information, refer to the academic program descriptions for the departments of biology, chemistry, and geology.

## Field Experience, Internship

**-95, -95j, -96 Field Experience or Internship** Noncurricular experience with direct, demonstrated relationship to the student's curricular program. Credits earned in field experience or internship may be applied toward requirements for a major only with explicit approval of the chairman of the major department or program. Nongraded, credit or no entry. *Prerequisite:* A formal proposal filed with the field experience coordinator prior to beginning of the project. Proposals for January program credit must be submitted by December 1. Proposals for summer credit must be submitted by May 1. *One to three credit hours (zero to three credit hours in January).*

## French

*In the department of modern foreign languages. Unless otherwise specified, all courses numbered above 127 are conducted in French. French 142 or permission of the instructor is required for all courses numbered 200 or higher. Courses numbered 500 and above are given in the Colby in Caen program.*

*Professors Jean Bundy, Guy Filosof, and Jonathan Weiss; Associate Professors Charles Ferguson<sup>1</sup>, Arthur Greenspan<sup>2</sup>, and Jane Moss; Assistant Professor Suellen Diaconoff<sup>3</sup>; Visiting Assistant Professor Sylvie Witkin; Instructor Dace Weiss<sup>4</sup>; Visiting Instructor Elizabeth Bowen*

*Achievement Test:* If a student offers a foreign language for entrance credit and wishes to continue it in college, that student must either have taken the College Board achievement test in the language or take the placement test during freshman orientation.

### **Requirements for the Major in French**

(1) For students who begin their study of French at Colby with French 141 or

higher: French 221, 222, 231 (normally taken in the sophomore year), and at least six additional courses numbered above 231 (not counting 234). At least two of these must be courses in which the major focus is on French literature written before 1800.

(2) For students who begin their study of French at Colby with French 127, the requirements are the same as above except that French 141 and/or 142 may be substituted for French 221 and/or 222.

(3) Students who begin their study of French with French 125 and who wish to major in French should consult the chairman of the department of modern foreign languages before the end of the second semester of their freshman year.

The following statements also apply:

(1) The point scale for retention of the major is based on all French courses numbered above 127.

(2) No major requirements may be taken pass/fail.

(3) No more than the equivalent of four semester courses of transfer credit may be counted toward the major.

(4) All majors in the department must take at least one course in the major approved by the major adviser each semester until graduation. For students returning from foreign study, these courses must be numbered 300 or higher.

(5) No more than one French literature course given in English may be counted toward the major.

French majors are encouraged to apply for admission to the Colby Junior Year Abroad program in Caen and to be aware of the French component of interdisciplinary programs in performing arts and women's studies.

Senior majors who have taken the senior seminar may, in their final semester, write a senior thesis. Successful completion of the thesis may allow the student to graduate "With Honors in French."

*Teacher Certification:* Students desiring certification for teaching French should consult the department of modern foreign languages and the education department.

<sup>1</sup>On leave full year.

<sup>2</sup>Resident director, Colby in Caen, full year.

<sup>3</sup>On leave first semester.

<sup>4</sup>Part-time.

**†[115j] Practical Phonetics** Phonetic analysis and transcription, using the international phonetic alphabet as applicable to French. *Two credit hours.*

**125, 126d Elementary French** Introduction to the language with emphasis on audio-lingual skills. Presentation of dialogue materials supplemented with visual aids. Use of taped materials in the language laboratory is a regular part of class work. *Four credit hours.* FACULTY

**127d Intermediate French** An intermediate course emphasizing reading for direct comprehension, aural and oral skills, grammar, and vocabulary building. Materials used include literary works by Sartre and Camus, as well as full-length feature films. *Prerequisite:* French 126 or an appropriate score on the College Board French achievement test. *Four credit hours.* FACULTY

**131d, 131j Conversation and Composition** Practice in writing compositions in French, with additional work in developing oral skills, building vocabulary, and idioms. *Prerequisite:* A score of 60 on the College Board French achievement test or French 127. *Three credit hours.* FACULTY

**141d Introduction to French Literature** Introduction to the critical reading of French literature using selected prose, poetry, and theater. Emphasis on reading, discussion, and composition. *Prerequisite:* French 127 or appropriate College Board score. *Three credit hours.* FACULTY

**142d Contemporary French Novel** A study of works by some of the major French novelists writing since mid-century. Texts will vary from year to year, but could include the works of such writers as Duras, Queneau, Le Clezio, Gary, Simon, etc. Non-French majors may choose to write papers and examinations in English. Enrollment limited. *Prerequisite:* French 141 or permission of the instructor. *Three credit hours.* FACULTY

**221, 222 Major French Authors** A study of key authors in several periods of French literature: Romanticism to the Modern (221), and the Renaissance through the Classical period and the Enlightenment (222). Included among the authors read are Rousseau, Stendhal, Baudelaire, and Camus; Montaigne, Pascal, Racine, Voltaire, and Diderot. Non-French majors may choose to write papers and examinations in English. *Prerequisite:* French 142 or permission of the instructor. *Four credit hours.* MR. BUNDY AND MS. DIACONOFF

**231 Grammar and Composition** An advanced language course intended for majors and others wishing to do further work in French. Required of students who seek admission to Colby in Caen. Intensive grammar review and frequent practice in writing French. *Prerequisite:* French 131, 141, or 142. *Three credit hours.* MR. WEISS

**232 Introduction to French Culture** A course designed for students who have been accepted into the Colby in Caen program but open to other students as well. Major aspects of contemporary French life and culture, with continuing practice in improving oral and written language skills. *Prerequisite:* French 231 or permission of the instructor. *Three credit hours.* MR. WEISS

**234 Intensive Spoken French** Weekly practice in oral French, designed for participants in the Colby in Caen program. Drill sessions and conversation groups will be conducted by French exchange students and returning seniors under the direction of a faculty member. Nongraded. *Prerequisite:* Acceptance into the Colby in Caen program and concurrent enrollment in French 232. *One credit hour.* INSTRUCTOR

**[236] Images of Women in French Literature** Study of literary pieces in France from the Middle Ages to modern times by both women and men in which the female experience forms the dominant theme, demonstrating how imaginative work can be interpreted as a statement of values relative to women and how it reflects the social conditions that shape self-image and destiny. Class meetings are conducted in English; non-French majors may write papers and examinations in English. *Four credit hours.*

**335 Seventeenth-Century French Theater** The classical theater: Corneille, Racine, and Molière. Non-French majors may choose to write papers and examinations in English. *Prerequisite:* A 200-level French course. *Three or four credit hours.* MR. FILOSOF

**336 Eighteenth-Century French Literature** The novel in the age of ideas: the politics of satire, sentimentality, and eroticism. Works by Montesquieu, Prévost, Rousseau, Diderot, Laclot, Graffigny, and Riccoboni. Non-French majors may choose to write papers and examinations in English. *Three or four credit hours.* MS. DIACONOFF

**\*351 French Canadian Literature before 1968** Analysis of important literary works from Québec, beginning in the nineteenth century, and ending with the Quiet Revolution of the 1960s. Emphasis is on prose, theater, and poetry from 1940 to 1968. Non-French majors may choose to write papers and examinations in English. *Three or four credit hours.* MR. WEISS

**†[352] French Canadian Literature, 1968 to the Present** Readings in the literature of Québec from the end of the Quiet Revolution to the present. Topics will include experimental forms of the novel, of theater, and of poetry, the language question, nationalism, and the literature of feminism. Non-French majors may choose to write papers and examinations in English. *Three or four credit hours.*

**353d2 Francophone Women Authors** The female literary tradition through detailed analysis of major French and French Canadian women writers. Topics will include the role of women in society, the autobiographical element in women's novels, feminism, and the gender specificity of *l'écriture féminine*. Non-French majors may choose to write papers and examinations in English. *Three or four credit hours.* MS. MOSS

**357 Nineteenth-Century French Poetry** Baudelaire and the symbolist poets: Mallarmé, Verlaine, and Rimbaud. Non-French majors may choose to write papers and examinations in English. *Three or four credit hours.* MR. BUNDY

**†[358] Nineteenth-Century French Literature** A study of realism and naturalism through representative works by such writers as Flaubert, Maupassant, and Zola. Non-French majors may choose to write papers and examinations in English. *Three or four credit hours.*

**†[375] The French Novel of the Twentieth Century** A close reading of selected novels from twentieth-century writers such as Vian, Robbe-Grillet, Wiesel, Lagorce, and Rezvani. Non-French majors may choose to write papers and examinations in English. *Three or four credit hours.*

**†[376] Modern French Drama** The theater of the absurd, political theater, recent trends in France, and some current French Canadian theater. Dramatic texts will be studied along with production techniques. Non-French majors may choose to write papers and examinations in English. *Three or four credit hours.*

**[378] The Personal Essay in French** A study of the ways in which men and women have written about themselves, their relationship to others, and their relationship to society. The course will span centuries and continents, including the personal writings of such French authors as Montaigne, Gide, Camus, and Simone Weil, and such Québec authors as Arthur Buies, Pierre Badeboncoeur, Suzanne Lamy, and Madeleine Gagnon. Non-French majors may choose to write papers and examinations in English. *Three or four credit hours.*

**[412] Advanced Composition** An advanced practical course designed to develop and apply—through *thèmes* and *versions*—the grammatical, linguistic, and syntactic skills essential to proper written and oral expression. Enrollment limited. *Prerequisite:* French 231 or permission of the instructor. *Three credit hours.*

**483 Senior Seminar** Designed to develop critical insight and to provide advanced students with a synthetic view of French literature; two major critical texts, *Mimesis*, by Erich Auerbach and *Forme et Signification* by Jean Rousset will be used as primary sources. Additional readings include selected texts from each period, concentrating on the concept of the hero/heroine, from the Middle Ages to the present. The seminar will encourage original thinking and may serve as a genesis for senior theses during the second semester. Enrollment limited. *Prerequisite:* Permission of the instructor. *Three or four credit hours.* MS. WITKIN

**484 Senior Thesis** The thesis topic, which may come out of the work in the Senior Seminar, is to be developed with a member of the French staff and approved by the department. It may result in the granting of Honors in French. Enrollment limited. *Prerequisite:* French 483 and permission of the instructor and of the department. *Three or four credit hours.* FACULTY

**491, 492 Independent Study** Individual projects in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *Two to four credit hours.* FACULTY

**531, 532 Twentieth-Century Literature** Selected works by major twentieth-century French authors, including Anouilh, Queneau, St.-Exupéry, and Sartre. Offered in Caen. *Three credit hours.* FACULTY

**541, 542 Poetics** Analysis of the structure and styles of poetry; second semester is dedicated mainly to twentieth-century poets. Offered in Caen. *Three credit hours.* FACULTY

**543, 544 Stylistics** Intensive study of advanced French grammar and vocabulary; analysis of various styles of writing, using articles and passages from French literature. *Explications de texte.* Offered in Caen. *Three credit hours.* FACULTY

**545, 546 Romanticism and Realism** Study of trends in nineteenth-century French literature, through selected works by Rousseau, Balzac, Chateaubriand, and Stendhal. Offered in Caen. *Three credit hours.* FACULTY

## Freshman Seminar Program

**DIRECTORS:** *Professors Peter Harris (English) and Douglas Archibald (English)*  
A new program of interdisciplinary seminars for freshmen has been developed. First offered as an option to members of the Class of 1990, the program is required for freshmen entering the College in the fall of 1987 and in 1988. Each seminar approaches a fundamental topic from the perspective of a number of disciplines and is structured to bring together ideas from different historical periods and very different points of view. The seminars cannot be used to satisfy distribution requirements.

**[111] Art and Music: Concepts, Perceptions, Responses** An examination of art and music in a variety of contexts, focusing on writing about general concepts and specific works. The purpose of the seminar is to help bring reactions to works of art and music to the surface and to articulate responses to those works. A study of pairs of contemporaneous figures who shared similar critical stances; the critical points of view range from the polemical (Charles Ives and Frank Lloyd Wright) or political (Pablo Picasso and Krystof Penderecki) to popular (Janis Joplin, Stevie Wonder, and Michael Graves) or minimalist (Jennifer Bartlett and Steve Reich); and a study of how art and music may occasionally be used in other media to advance a particular message (comic: the Marx Brothers' "A Night at the Opera," serious: James Baldwin's "Sonny's Blues," or fantastic: Poe's "Fall of the House of Usher"). Other artists and composers include Bach, Chagall, Debussy, Delacroix, Marvin Gaye, Gershwin, Goya, Kandinsky, Manet, Mozart, Stravinsky, and Fats Waller. Enrollment limited. *Four credit hours.*

**112 In Search of a Soul** The human quest for meaning and dignity has been a persistent theme of the literary and philosophical traditions of many cultures. This multi-sectioned seminar will explore a variety of external as well as internal landscapes to track that quest. What can introspection and reflection tell us about our lives and about all life? What struggles must humans undergo to clarify values and to find meaning in their lives? With an emphasis on autobiographies and literature that explores the human spirit through the exploration of self, students are encouraged to contemplate in their own lives the challenges of awareness posed by readings which include *Job*, *Plato's Apology*, *Jung's Memories, Dreams and Reflections*, *Erich Fromm's Escape from Freedom*, *Malcolm X's Autobiography*, *Elie Wiesel's Night*, *Anne Frank's Diary*, and *Judith Guest's Ordinary People*. *Four credit hours.* MR. KENNEY, MR. REUMAN, MR. WEISBROT, AND MR. ARCHIBALD

**[113] Conflict and Creativity: East and West** A look at the historical, cultural, and political ideas of conflict and creativity, focusing on the differing relationship between the two in East Asia and the West. The course will include works of literature, philosophy, history, and politics from China, Japan, America, and Europe. *Four credit hours.*

**[114] Turning Points in Human Understanding** An interdisciplinary seminar examining the theory that humanity has only made real progress when people made fundamental "paradigm shifts" or changed the basic values and assumptions that determined their thought and action. The seminar will focus on examples of paradigms and paradigm shifts from the Middle Ages to the present and consider works including literary and scientific classics to the visionary works of today's "new age" theorists. *Four credit hours.*

**115 Communication and Technology** An exploration of human communication beginning with the phonetic alphabet, and including such milestones as the invention of the printing press, wired communications (telephone and telegraph), wireless communications (radio and television), and concluding with the "computer age" of communications technology. Through a series of readings, lectures, and discussions, students will familiarize themselves with several technologies and their impact on human society. Each student will also complete a two-week laboratory designed to provide hands-on experience with

communications technology. *Four credit hours.* MR. LONGSTAFF, MR. METZ, AND MR. REICH

**116 Response and Counter-response in the Western Tradition** "Great books" become great because they contain great ideas. Inevitably, as well, they stimulate great debates. This multi-sectioned seminar seeks to illuminate through the paradoxes of our experience what it means to be human. By examining the themes of the great books of Western literature and philosophy—faith, love, anger, deceit, fear, hope—students are invited to examine their own lives and to explore other lives to determine what endures and what is transitory in human nature, to form criteria for critical assessments of human behavior. Readings include: Homer's *Odyssey*, Plato's *The Last Days of Socrates*, Shakespeare's *Hamlet*, Ellison's *The Invisible Man*, Sophocles' *Antigone*, and Dante's *Inferno*. *Four credit hours.* MR. HARRIS, MR. MOSS, MR. WEISS, MISS BLASINGHAM, AND MS. MABBOTT

**117 The Environment and Society** An interdisciplinary seminar focusing on the human relationship with and impact on the environment. A look at some of the environmental problems which have arisen as a result of the growth of society in various areas of the world. The causes of each problem, methods for investigating the problem, and possible solutions will be investigated from a scientific and a public policy perspective. *Four credit hours.* MR. COLE, MR. FIRMAGE, MR. SHATTUCK, AND MR. TIETENBERG

**118 The United States Constitution: A Living Document** A study of the background, writing, adoption, and evolution of the United States Constitution from the perspectives of scholars in American studies, government, history, and philosophy. The seminar centers on the theme that the Constitution can best be understood as a living document that current controversies, e.g., the secrecy of reporters' sources or the rights of minorities, have roots in constitutions which came before our own, the debates in the Constitutional Convention and over ratification, in literature and political and legal history during our nation's first two hundred years. *Four credit hours.* MR. CORRADO, MR. MAISEL, MR. BASSETT, AND MR. MOSS

**132 Global Perspectives on Gender, Race, and Class** The course explores three themes important to the belief systems of various cultures: nature, love, and power. These themes are traced across cultures and through the centuries to understand how conceptions of nature, love, and power contribute to the establishment of distinctions/classifications of gender, race, and class, using classic and contemporary texts, films, and works of art. *Four credit hours.* MS. LICHTERFELD, MS. MANNOCCHI, MS. PRENDLE, AND MS. SINGH

**134d1 Science and Society** The course will examine, successively, the history and philosophy of science, the ways in which science is done, the differences between science and pseudo-science, and the many points of impact of science on the modern world. Specific modern problems, e.g., acid rain, will be explored, looking at the political and regulatory processes involved in trying to control such a problem. Weekly writing assignments and a major paper are required. *Four credit hours.* MR. NELSON, MR. ROHRMAN, AND MR. FLEMING



# Geology

*Chairman*, PROFESSOR DONALD ALLEN

*Professors Allen and Harold Pestana; Visiting Professor E. Donaldson Koons<sup>1</sup>; Associate Professor Robert Nelson; Assistant Professor William Doll; Laboratory Instructor Bruce Rueger*

If one is interested in our planet—how it developed its present characteristics and what may happen to it in the future, where we came from and what supports us on the planet, our resources and their use—geology is a central area of study. The geology department features an unusually fine rock and mineral collection for study, an excellent small-college library, various geophysical instruments, and access to the College's new transmission and scanning electron microscopes. The setting of the College also provides an intriguing area for field study. Students are encouraged to work on independent projects and to develop ways of actively examining and interpreting observational data.

The department offers four major programs for students with different interests. For each option, at least one independent January program is required to be taken in the major during the junior or senior year. The point scale for retention of the major applies to all courses taken in the major. No requirement may be taken pass/fail.

## **Requirements for the Basic Major in Geology**

Geology 141, 142, 215, 232, 251, 271, 331, 351, 381, 382, 452; at least three hours of 491 or 492; Mathematics 121, 122; Chemistry 141, 142; Physics 121, 122 or 132, 231.

## **Requirements for the Major in Geology-Biology**

In geology: 141, 142, 215, 271, 311; six additional credit hours numbered 200 or higher.

In biology: 121, 122, 271, 272, and 8 additional credit hours.

Other courses: Chemistry 141, 142; Mathematics 121 and one additional mathematics course numbered above 121. Physics 121, 122 or 132, 231 is recommended.

The point scale for retention of the major applies to all courses in geology and biology.

## **Requirements for the Major in Geology-Chemistry**

In geology: 141, 142, 215, and two courses from 352, 381, or 382.

In chemistry: 141, 142, 331, 341. Chemistry 241, 242, and 332 are also recommended.

A Graduate Record Examination in geology or chemistry must be taken in the senior year.

Students should consult one of the major advisers regarding election of languages and other required courses in the freshman and sophomore years.

The point scale for retention of the major applies to all courses in geology and chemistry.

## **Requirements for the Major in Geophysics**

In geology: 141, 142, 215, 232, 271, 331, 333 or 336, 311 or 452.

In physics: 121, 122 (or 132, 231), 211, 312.

In mathematics: 121, 122, 253 and 222; or 123, 124 and 253.

Recommended courses include Geology 381 and 382, Physics 411, Chemistry 141 and 142, and Mathematics 311, 312, 332, and 352.

The **Earth Science Option** is offered for students planning to teach in the secondary schools; the requirements are: Geology 141, 142, 215, 251, 292, 311 (or 312), 351, 381; Chemistry 141.

The **Environmental Science Option** is designed to provide students with a core of geology courses supplemented by related courses from other departments. The requirements are: Geology 141, 142, 215, 311, 494; Biology 121, 122, 271; Chemistry 141, 142, 217 (or any of the following: 241, 242, 331, 332); Mathematics 121, 241 or 381; Physics 112 or 121 or 132; Economics 133, 134, 231. Other related courses include: Biology 311, 314, 316, 318, 332, 352, 354, 356, 358; Geology 172 (or 176), 232, 333, 351, 354; Mathematics 122, 242, 382; Physics 122 or 231; Economics 293, 294, 314.

The **Bermuda Semester**. Majors may earn 15 credit hours in field study of coral reefs and carbonate environments. Geology 176, 251, 312, 314, and 316 are occasionally offered by Colby faculty using the facilities of the Bermuda Biological Station.

Attention is called to the interdisciplinary concentration in applied mathematics.

<sup>1</sup>Part-time, January only.

**141d, 142 Introduction to Geological Science** The physical Earth and its past. Emphasis in 141 is on earth materials and physical processes; 142 is devoted to energy and resources, environmental geology, and the physical and biological evolution of the Earth. Enrollment limited to five laboratory sessions of 25 students each. Lecture and laboratory; laboratory sessions will include mandatory field trips (including an all-day weekend trip in 141). *Four credit hours.* MR. NELSON AND MR. RUEGER

**\*161j Paleontology for Non-majors** An introduction to the principles of paleontology. Laboratory work concentrates on environmental interpretation through the use of fossils. Enrollment limited. *Prerequisite:* Permission of the instructor. *Three credit hours.* MR. PESTANA

**172 Oceanography** A descriptive introduction to physical, dynamical, and biological oceanography. Topics will include: the structure and composition of the ocean and its floor; tides, currents, and other important dynamic features; the nature of ocean life. The value of the oceans for food and physical resources will be discussed. Lecture. *Three credit hours.* MR. PESTANA

**†[176] Oceanography** Similar to Geology 172 but taught at the Bermuda Biological Station. Students cannot receive credit for Geology 172 and 176. Lecture. *Three credit hours.*

**215 Mineralogy** Physical properties and chemical structure of minerals leading to investigation of the chemical composition and optical properties of minerals. Lecture and laboratory. *Prerequisite:* Geology 141, Chemistry 141 (may be taken concurrently), or permission of the instructor. *Four credit hours.* MR. ALLEN

**232 Structural Geology** Processes and results of deformation of rocks, including microfabrics, primary structures, faults, and folds. *Prerequisite:* Geology 142. *Four credit hours.* MR. DOLL

**251 Invertebrate Paleontology** Morphology of invertebrates and general principles, including nomenclature, taxonomy, paleoecology, evolution, correlation, and techniques of identification. Lecture and laboratory. *Prerequisite:* Geology 142 or one year of biology. *Four credit hours.* MR. PESTANA

**252d Micropaleontology** An independent study laboratory course covering one or more of the major microfossil groups. Emphasis will be on identification, age determination, and environmental interpretation. *Prerequisite:* Geology 251 or permission of the instructor. *One to four credit hours.* MR. PESTANA

**254d Advanced Invertebrate Paleontology** An independent study laboratory course involving a detailed investigation of one or more invertebrate groups. Emphasis will be on identification, age determination, and environmental interpretation. *Prerequisite:* Geology 251 or permission of the instructor. *One to four credit hours.* MR. PESTANA

**258j, 258 Field Geology** A course of studies to be conducted off campus in a region whose climate permits field study of geologic features. Emphasis will be placed on development of fundamental concepts, analysis of field data, field identification of lithotypes, basic mapping techniques, and recognition of geomorphic features and their genetic significance. Grades will be based on field notes, reports, and maps submitted following independent projects, which will be conducted periodically over the duration of the course. *Prerequisite:* Geology 141 and permission of the instructor. *Two or three credit hours.* FACULTY

**271 Computer Applications and Mathematical Methods in the Earth Sciences** An introduction to computer applications and mathematical methods in the earth sciences, to provide appropriate tools for more quantitative approaches to geological problems in advanced courses. *Prerequisite:* Geology 141, 142, and permission of the instructor. *Three credit hours.* MR. DOLL

**292j Meteorology** Physical properties of the atmosphere, the origin and classification of weather types, air mass analysis and principles of prediction, and meteorology of air quality. Does not satisfy the science requirement. Lecture. *Two credit hours.* MR. KOONS

**[297] Groundwater Geology** Flow of water in subsurface geologic environments, groundwater and geologic processes, groundwater resources, and groundwater contamination. *Three credit hours.*

**311 Sedimentation** Processes of sedimentation, methods of analysis of sediments, the description and interpretation of environments of deposition, and the classification and description of sedimentary rocks. Lecture and laboratory. *Prerequisite:* Geology 142 and 215. *Four credit hours.* MR. PESTANA

**†[312] Sedimentation and Carbonate Sediments** Sedimentary processes, environments of deposition, and the classification and description of sedimentary rocks. Emphasis will be on carbonate sediments and the biological aspects of sedimentation. Taught at the Bermuda Biological Station. Students cannot receive credit for Geology 311 and 312. Lecture and laboratory. *Prerequisite:* Geology 142 and 215. *Four credit hours.*

**†[314] Field Study in Bermuda** Field and laboratory study of selected topics dealing with coral reefs, carbonate sediments, or other aspects of the Bermuda environment. *Corequisite:* Geology 251d2 and 312. *Five credit hours.*

**[316] Natural and Social History of Bermuda** Lectures and field trips covering the natural and social history of Bermuda. Taught at the Bermuda Biological Station and including lectures by the station staff and Bermuda residents. Nongraded. *Two credit hours.*

**331 Tectonics** Large-scale features and physical processes of the crust, mantle, and core of the earth are discussed, and the constraints imposed by several areas of research are summarized. In this setting, the concepts of plate tectonics are explained and applied. *Prerequisite:* Geology 232 and Physics 122 or 231, or permission of the instructor. *Three credit hours.* MR. DOLL

**333 Geophysical Prospecting** Gravitational, magnetic, electromagnetic methods, and geologic mapping commonly used in mineral exploration, are studied and applied to local field areas. *Prerequisite:* Geology 232 and Physics 122 or 231, or permission of the instructor. *Four credit hours.* MR. DOLL

**336 Seismology** Principles of collection and interpretation of seismic data. Both naturally occurring (earthquake) sources and artificial sources will be considered. Body waves (P- and S-) and surface waves will be discussed in determining local and global structure. *Prerequisite:* Geology 232, Mathematics 121 or 123, and Physics 121 or 132, or permission of the instructor. *Four credit hours.* MR. DOLL

**351 Principles of Geomorphology** The origin, history, and classification of landforms and the processes that shape the earth's surface. Emphasis on study of physical processes. Lecture and laboratory. At least one all-day field trip required. *Prerequisite:* Geology 232. *Four credit hours.* MR. NELSON

**352j Dating Techniques in Geology** The use of radioactive isotopes and their decay as a means of determining the ages of rocks and other geological deposits. Nonradiometric techniques will also be examined, with particular attention to their applicability and reliability. Lecture only. *Prerequisite:* Geology 142, Chemistry 141. *Two credit hours.* MR. NELSON

**354 Glacial and Quaternary Geology** The origin and development of glaciers and their influence on the landscape, both as erosive forces and as transporters of new earth materials. Geological and biological evolution of the landscape during the Quaternary, the most recent of the geological periods. Lecture and laboratory and several field trips (including two all-day Saturday trips). *Prerequisite:* Geology 142. *Four credit hours.* MR. NELSON

**[358] Geological Field Study** A spring-recess field trip to a selected area. Students must cover expenses. *Prerequisite:* Permission of the instructor. *One credit hour.*

**†[372] Quaternary Paleocology** Reconstruction of biological environments on land for the recent geologic past, based on the fossil remains of plants and animals preserved in sediments. Emphasis will be on the use of pollen in reconstructing past vegetation types, but other groups of organisms will be included. Extrapolation of past climatic parameters from the biological data. Lecture and laboratory. *Prerequisite:* Geology 142 and Chemistry 142. Geology 354 and Biology 311 are recommended. *Four credit hours.*

**374 Ore Deposits** An investigation of the genesis and localization of ore deposits. Topics may include the history of mineral deposits, materials, and formation of

ore deposits, supergene sulfide enrichment, paragenesis and zoning, epigenetic versus syngenetic deposits, magmatic segregation deposits, and mineral deposits related to regional tectonic environments. *Prerequisite:* Geology 215 and Chemistry 141. *Three credit hours.* MR. ALLEN

**381, 382 Optical Mineralogy; Igneous and Metamorphic Petrology** First semester: determination of mineral composition and properties by means of petrographic microscope and emission spectrograph. Second semester: hand-specimen and thin-section examination of igneous and metamorphic rocks to determine structure, composition, and origin. Lecture and laboratory. *Prerequisite:* Geology 215. *Four credit hours.* MR. ALLEN

**452 Stratigraphy** Principles of stratigraphy. Includes a study of the relationships and correlation of sedimentary rocks. Laboratories include work with index fossils and a detailed analysis and correlation of well samples. Lecture and laboratory. *Prerequisite:* Geology 251. *Four credit hours.* MR. PESTANA

**491, 492 Independent Study** Field and laboratory problems in geology or environmental problems, with regular reports and a final written report. *Prerequisite:* Permission of the instructor. *One to four credit hours.* FACULTY

**494 Environmental Geology** Selected topics dealing with environmental quality. Extensive individual investigation. *Prerequisite:* Permission of the instructor. *Three or four credit hours.* MR. ALLEN

## Geophysics

*In the department of Geology*

Geophysics is an emerging interdisciplinary field which uses methods of physics to study the earth's interior. It extends the earth scientist's understanding of geologic processes to great depth. As the geologic sciences have become more quantitative, geophysics has taken a more prominent position across the country. The geophysics cluster is directed at students who have interest in a career in geophysics and have no heed for a double major in geology and in physics. Requirements for this academic program are listed in the "Geology" section.

## German

*In the department of modern foreign languages. Unless otherwise specified, all courses are conducted in German. German 151 or permission of the instructor is required for all higher-numbered German courses.*

*Associate Professors Hubert Kueter, James McIntyre<sup>1</sup>, and Peter Nutting; Visiting Instructors Margrit Lichterfeld and Ann Mabbott<sup>2</sup>*

*Achievement Test:* If a student offers a foreign language for entrance credit and wishes to continue it in college, that student must either have taken the College

Board achievement test in the language or take the placement test during freshman orientation.

**Requirements for the Major in German**

Eight semester courses numbered above German 127.

The following statements also apply.

(1) The point scale for retention of the major is based on all German courses beyond the intermediate level.

(2) No major requirements may be taken pass/fail.

(3) No more than the equivalent of four semester courses of foreign study or transfer credit may be counted toward the major.

(4) All majors in the department must take at least one course in the major approved by the major adviser each semester until graduation.

*Teacher Certification:* Students desiring certification for teaching German should consult the department of modern foreign languages and the education department.

<sup>1</sup>On leave full year.

<sup>2</sup>Part-time.

**119 Introduction to Intermediate German** Practice in speaking and listening skills and review of basic grammar. Intended for students electing German 127j in Konstanz. Does not fulfill the language requirement. Enrollment limited. *Prerequisite:* German 126 or appropriate score on the College Board German achievement test. *One credit hour.* MR. KUETER

**125, 126 Elementary German** Introduction to the language by an audio-lingual method, with emphasis on understanding, speaking, and reading. Use of taped materials in the language laboratory is a regular part of the class work. *Four credit hours.* FACULTY

**125j Intensive Elementary German** Intensive introduction to German. Equivalent to German 125 but conducted on campus during January. *Three credit hours.* MS. MABBOTT

**126, 127, 131, 132 Colby in Lübeck** Intensive use of language skills in Lübeck, Federal Republic of Germany. *Prerequisite:* German 125 or appropriate score on the College Board achievement test. *Sixteen credit hours.* FACULTY

**127 Intermediate German** Continued practice in speaking and listening skills; grammar review; drill in language laboratory; readings and conversation based on topics from German culture; emphasis on the practical use of the language. *Prerequisite:* German 126 or appropriate score on the College Board German achievement test. *Four credit hours.* FACULTY

**127j Intermediate German** Intensive practice in conversational and writing skills in Konstanz; emphasis on the practical use of the language. *Prerequisite:* German 119. *Three credit hours.* MR. KUETER

**131j Introduction to German History and Culture** Taught only in conjunction with a study abroad program in Konstanz. Readings and discussions in German. Field trips to museums and architectural monuments. *Prerequisite:* German 127 or permission of the instructor. *Three credit hours.* MR. KUETER

**132 Conversation and Composition** Further development of language skills, with emphasis on oral expression and written facility. *Prerequisite:* German 127 or permission of the instructor. *Four credit hours.* MS. LICHTERFELD

**151 Introduction to German Literature** Readings in drama, short prose, and poetry, mainly from the twentieth century. Designed to develop skills in literary analysis and close reading of texts and to introduce the writings of major authors. Continuing practice in conversation and composition. *Prerequisite:* German 132 or equivalent. *Four credit hours.* MR. NUTTING

**232d1 Advanced German** A review of German grammar at the advanced level, with directed themes and free compositions. *Prerequisite:* German 132 or 151. *Three credit hours.* MR. KUETER

**234 Survey of German Culture** German culture as reflected in literature, art, music, and philosophy from the Middle Ages to the Weimar Republic. *Prerequisite:* German 151 or permission of the instructor. *Three or four credit hours.* MS. LICHTERFELD

**236 Introduction to Contemporary German Culture** Discussion of major cultural issues in both Germanies. Topics will include the role of women, youth and popular music, environmental problems, the media, foreign workers, and East-West relations. Continued practice in conversation and writing skills and extensive use of current cultural materials. Enrollment limited. *Prerequisite:* German 151 or permission of the instructor. *Four credit hours.* MR. NUTTING

**252 New German Cinema** History, theory, and development of the German film from 1970 to the present. Viewing and analysis of films by Fassbinder, Kluge, Schlöndorff, Von Trotta, Wenders, and Herzog. Discussion in English, with an added discussion hour in German for students working for credit in German. *Three or four credit hours.* MR. NUTTING

**333 German Women Writers** A survey of German women writers and their works from the Romantics to contemporary Austrian, West German, and East German writers. Both literary texts and some feminist documents will be read. Contemporary feminist theory will be discussed. *Four credit hours.* MS. LICHTERFELD

**[351] The Medieval Epic** An introduction to the history, culture, literature, and language of medieval Germany; study of the three major epics of the period: the *Nibelungenlied*, *Parzival*, *Tristan und Isolde*; reading of New High German translations with sample readings of Middle High German texts. *Four credit hours.*

**352 Topics in the History of German Literature** The youthful hero in four centuries of German literature. The study of four important works in German literature representing four major periods: *Simplizissimus*, 17th century (Baroque); *Werther*, 18th century (Storm and Stress); *Prinz von Homburg*, 19th century (Romanticism); *Die Leiden des jungen Werther*, 20th century (contemporary DDR). *Four credit hours.* MR. KUETER

**353 Topics in Eighteenth-Century German Literature** Literature of the classical period: Schiller. *Four credit hours.* MS. LICHTERFELD

**355 Topics in Nineteenth-Century German Literature** Kunst-und Volksmärchen (Art and Folk Fairy Tales). *Four credit hours.* MR. KUETER

**[358] Topics in Twentieth-Century German Literature** German literature after 1890. *Four credit hours.*

**491, 492 Independent Study** Individual projects in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *Two to four credit hours.* FACULTY

**[493], 494 Seminar in German Literature** Topics, which change each year, may cover an author, a genre, or a literary movement. (Spring 1989: Kafka and Prague.) *Four credit hours.* MR. NUTTING

## Government

*Chairman,* PROFESSOR ROGER BOWEN

*Professors Albert Mavrillac<sup>1</sup>, Guenter Weissberg<sup>1</sup>, William Cotter<sup>2</sup>, L. Sandy Maisel, G. Calvin Mackenzie, and Bowen; Visiting Professor Morton Brody<sup>3</sup>; Associate Professor Charles Hauss; Assistant Professor Pamela Blake<sup>4</sup>; Visiting Assistant Professors Rita Moore and Chaudhury Shamim; Instructor Beverly Hawk<sup>4</sup>; Visiting Instructors Anthony Corrado and Mary Caputi*

The department of government offers a wide range of courses in American government and politics, comparative government and politics, transnational politics, political theory, and research methods and quantitative analysis. The departmental goals include exposing students to a variety of forms of governments and of intergovernmental activities and to the means for studying these governments and their actions.

Internships are encouraged, so that students can experience the practical as well as the more theoretical aspects of the field. The interdisciplinary program in public policy also furthers this goal. In addition, for those students who intend to pursue the study of government in more depth, the department offers an honors program which emphasizes substantial independent research under the close guidance of one or two members of the faculty. Successful completion of this program will result in the degree being awarded "With Honors in Government."

### **Requirements for the Major in Government**

Nine semester courses in government, including Government 111 and 112, one course at the 200 or 300 level in each of the four sub-fields defined below, and a senior seminar.

Government 111 and 112 are designed as introductions to the discipline. The sub-field requirement provides for a broad background within the field. The senior seminars, which cross the sub-fields and are sometimes taught in conjunction with other disciplines, are designed to be culminating experiences within the field; each seminar will require a major research paper to coordinate the materials studied in the major.

All requirements for the major must be taken at Colby. Courses transferred from other institutions and/or field experience courses can count (up to a maximum of two) in the nine-course requirement, but they may not be substituted for the introductory, distribution, or seminar requirements. Students taking government courses abroad must secure provisional approval for each course prior to leaving;



upon return to Colby, brief descriptions of work completed must be submitted to the department for final approval.

Sub-fields for the departmental distribution requirements are defined as follows:

*Political Theory and Analysis*: Government 213, 218, 219, 312, 316, 394.

*American Government and Politics*: Government 273, 275, 276, 313, 314, 317, 319, 352, 356, 392, 397B.

*Comparative Government and Politics*: Government 234, 237, 254, 271, 277, 318, 333, 353, 357, 358.

*Transnational Politics*: Government 215, 239, 332, 334, 336, 338, 372.

Attention is called to the interdisciplinary program in public policy and to the interdisciplinary concentration in quantitative analysis.

<sup>1</sup>Part-time.

<sup>2</sup>Part-time first semester only.

<sup>3</sup>Part-time second semester only.

<sup>4</sup>On leave full year.

**111 Introduction to American Government and Politics** An examination of the ideas and values that underlie the American political system, and of their contemporary manifestations in institutions, processes, and policies. Coordinated lectures presented by several members of the government faculty in their areas of specialization. Open to freshmen and, by departmental permission, to others majoring in government. *Four credit hours.* FACULTY

**112 Comparative Politics: An Introduction to Politics Outside the United States** An analysis, through case studies, of the major dimensions of domestic and transnational politics in Western democracies, Communist countries, and the Third and Fourth worlds. Coordinated lectures presented by several members of the government faculty in their areas of specialization; discussion sections headed by individual faculty members. Open to freshmen and, by departmental permission, to others majoring in government. *Four credit hours.* FACULTY

**[114j] The Constitution and Civil Rights: Blacks, Women, and Gays in Late Twentieth-Century America** A study of the ways in which the Supreme Court has interpreted the Constitution as it relates to controversial issues dealing with the rights of blacks, women, and gays in recent decades. *Three credit hours.*

**[115j] British Politics** A January program in Great Britain. Students will study and observe various aspects of British politics at the national level. *Three credit hours.*

**†[116j] Politics and Language** The relationship between politics and language. How is the process of naming reality an exercise in power? If language is a field of political relations, then what are the implications for movements seeking to bring about the realization of democracy? *Two credit hours.*

**[117] Workshop in Political Rhetoric** The nature of modern techniques of transmitting political information and of persuading both the general public and organizational and social decision makers, focusing on the student's skills in using those techniques. Preparation of briefing papers on current legislative items, television commentaries on current events, radio election-campaign commercials,

political humor, and summaries of current judicial treatment of significant public policy matters. *Three credit hours.*

**[118j] Crooks, Cops, and the Constitution** A study of some current prominent issues in the criminal law, with particular attention to the interaction of prosecutors, defense attorneys, police, judges, and legislatures in raising and dealing with them, and with special attention to the role of the United States Supreme Court in the shaping of modern thinking about crime, criminals, and punishment. *Three credit hours.*

**[132] Conflict Resolution** This course will begin by dealing with the theoretical aspects of conflict resolution in the domestic and international spheres. Subsequently, it will be turned into the United Nations Security Council as constituted at the present time. Each student will assume the role of an ambassador to the United Nations and represent his or her country's position in relation to a hypothetical case. Open to freshmen only. *Three credit hours.*

**[133j] African Life and Politics Through Literature** African literature is intertwined with African politics. The great issues of African life are expressed in the literature of its people. The course will explore the rich tradition of African literature as a celebration of culture and the political voice of the people. *Three credit hours.*

**139j January in the Soviet Union** A trip to the Soviet Union focusing on political and social affairs. Enrollment limited. *Prerequisite:* Permission of the instructor. *Three credit hours.* MS. MOORE

**213 Classical Western Political Theory** Classical Western approaches to the nature of the political order, treating such theorists and their historical periods as Plato, Aristotle, Cicero, Augustine, Aquinas, Luther, Calvin, Machiavelli, Hobbes, Locke, and Montesquieu. *Four credit hours.* MS. CAPUTI

**214j Model United Nations** A practical decision-making course designed for students who want to learn by doing and not just through lecture notes and readings. Students will be prepared for participation in the annual Model United Nations (MUN) simulations. MUN is a conference of colleges and universities in which schools assume the roles of members of the United Nations. The focus is on current politics in the United Nations; how decisions are made; lobbying; and the drafting, redrafting, sponsoring, and co-sponsoring of resolutions. In addition to international organization texts, current United Nations documents will be extensively used. *Three credit hours.* MR. SHAMIM

**215 Transnational Relations in the Modern World** The basic actors, theories, and systematic elements of international politics and their relationship in the fluidity of the modern world. Emphasis is placed on the search for a structure of international security, and on such subjects as transnational power politics (including the role both of traditional states and of contemporary nonstate movements), comparative conceptions of diplomacy and war as instruments of goal achievement, and institutions of collective security. Intended both for students planning further study in transnational relations and for those who will not have other occasion in college to study the shape of the international system. *Three or four credit hours.* MR. WEISSBERG

**218 Modern Western Political Theory** Nineteenth- and twentieth-century Western thought on the political order, with particular attention to such theorists as Rousseau, Kant, Hegel, Marx, Bentham, Mill, and Dewey, and to select twentieth-century radical and conservative critics. *Four credit hours.* MS. CAPUTI

**[219] Introduction to Research Methods for Political Science** Introduction to simple techniques for quantifying concepts and relationships of interest to political scientists, and to the use of the computer. Intended for students with little or no exposure to the computer or to quantitative methods. Enrollment limited. *Prerequisite:* Government 111 and 112, or permission of the instructor. *Three or four credit hours.*

**234d1 European Politics** An overview of the trends in European politics from the mid-nineteenth century to the present, focusing on the historical shifts from liberal democracy to Marxist revolutionism, fascism, and social democracy through case studies of Great Britain, France, Italy, and Germany. *Three or four credit hours.* MS. MOORE

**237 Political Development in Modern Japan** The political, cultural, historical, and economic dynamics of Japan's drive to modernize since the 1868 Meiji Restoration. Special attention will be given to the ongoing conflict between the proponents of liberal democracy and those favoring an oligarchic, authoritarian governmental system. Throughout the study, students will seek to locate the roots of Japanese democracy and militarism. *Prerequisite:* Government 112 or permission of the instructor. *Four credit hours.* MR. BOWEN

**239d2 Nuclear Weapons and Nuclear War** An inquiry into the threat and consequences of nuclear war. The course will consider the way nuclear weapons work, the history of the nuclear arms race, the current tensions between the superpowers, and the possible solutions for the problems associated with "the bomb." Enrollment limited. *Three or four credit hours.* MR. HAUSS

**[254] Comparative Communism** An examination of Marxist theory and the reality of the two main states calling themselves Marxist—the Soviet Union and the People's Republic of China. *Three or four credit hours.*

**271 War and Revolution in Vietnam** The significance of the Vietnam War; the Vietnamese Revolution as it compares with other revolutions; and the impact of the war on American politics and public policy. Enrollment limited to 60 students; preference given to government and East Asian studies majors. *Prerequisite:* Government 112 or permission of the instructor. *Four credit hours.* MR. BOWEN

**[273] The American Congress** The organization, powers, and actions of the legislative branch of the American government examined in historical and contemporary perspective. *Prerequisite:* Government 111 or permission of the instructor. *Three or four credit hours.*

**275j The Committee System in the United States Congress** An examination of the process through which Congressional committees make decisions in the modern Senate. During the first part of the course professional political science literature on committee performance will be read. The second part of the course will follow a

specific piece of legislation through the appropriate committee in a concentrated simulation. *Prerequisite:* Government 111. *Three credit hours.* MR. MAISEL

**276 The American Presidency** The organization, powers, and actions of the executive branch of the American government examined in historical and contemporary perspective. Special emphasis on case analysis. Enrollment limited to 35. *Prerequisite:* Government 111 or permission of the instructor. *Four credit hours.* MR. MACKENZIE

**[277] African Politics** Introduction of African politics through case studies of Kenya, Tanzania, South Africa, Angola, Ghana, and Nigeria. *Three or four credit hours.*

**295j Internship** Month-long internships in offices such as those of attorneys, congressmen, senators, and state legislators. Nongraded. *Two or three credit hours.*  
FACULTY

**297 Theory and Politics of War** A comprehensive survey of the theory and politics of war in three sections: a review of modern strategy of warfare, beginning with Machiavelli and ending with reflections on strategy in the 1980s and the future; the "art of war," especially the writings of Sun Tzu; the lessons of recent wars in the Third World, such as the Iran-Iraq war, the Soviet-Afghan war, the war in Western Sahara, and others. *Four credit hours.* MR. SHAMIM

**298 The Politics of South Asia** A comprehensive introduction to the international relations, government, and politics of the subcontinent. A discussion of the history, social structure, and cultural heritage of the region establishes a sound interdisciplinary context for understanding the political framework of the seven South Asian states. The course makes use of the rich comparative possibilities afforded by the subcontinent, exploring examples of political development ranging from the relatively open and democratic systems of India and Sri Lanka to the frequently authoritarian governments of Pakistan and Bangladesh, as well as the changing traditional polities of Nepal, Bhutan, and the Maldives. *Three or four credit hours.* MR. SHAMIM

**312d1 Directions in Feminist Theory** Women's economic, social, and cultural movement over the past fifteen years has challenged socioeconomic hierarchies and the knowledge(s) that sustains them. The scope and dimensions of feminist theories of sexual differences and sexual freedom. *Four credit hours.* MS. CAPUTI

**313 American Constitutional Law I** An introduction to the United States Supreme Court, constitutional litigation, and the political process by way of an emphasis on the Court and its relationship to the structure of national government, federalism, and national economic development. *Four credit hours.* MR. MAVRINAC

**314 American Constitutional Law II** The United States Supreme Court and the modern era of civil rights litigation. *Four credit hours.* MR. MAVRINAC

**316 American Political Thought** The philosophical foundations of the United States Constitution; an analysis of the theoretical foundations of the Constitution

as reflected in the works of such authors as Locke and Montesquieu, the Puritans, and Revolutionary thinkers, and as reflected in relevant documents including the Fundamental Orders of Connecticut, Declaration of Independence, and Articles of Confederation. The proceedings of the Philadelphia Convention will be reviewed. The central focus will be American political thought at the time of the founding, as reflected in the Federalist papers and Anti-federalist writings. *Prerequisite:* Government 111 or permission of the instructor; preference to Government and American Studies majors. *Three or four credit hours.* MR. CORRADO

**317 The Policymaking Process** An examination of the policymaking process, including such topics as agenda setting, program formulation, consensus building, implementation, and the use and misuse of policy analysis. Special attention to methods and techniques of policy evaluation. Primary focus on policy making at the national level in the United States government. Enrollment limited to 35. *Prerequisite:* Government 111 or 112. *Three or four credit hours.* MR. MACKENZIE

**[318] The Welfare State** The role of the modern state in providing social services and intervening to regulate a capitalist economy. A critical analysis focusing on Great Britain and Sweden. *Prerequisite:* Government 234 or 317. *Three or four credit hours.*

**319 Law and Social Change: Women and Minorities** An examination of the respective roles of the courts, the legislative, and the executive in declaring law and resolving disputes. The legal "case method" will be used to focus on the judicial process as it has dealt with problems of slavery and racial equality and discrimination against women in the United States, and, to a lesser extent, in England and South Africa. The Socratic method of teaching will be used, and regular class participation is required of all students. Enrollment may be limited. *Three credit hours.* MR. COTTER

**331 Colloquium on Transnational Issues** Transnational issues with domestic implications, and domestic problems with a substantial transnational impact. Topics will include the Third United Nations Conference on the Law of the Sea (UNCLOS III) and the convention which was concluded, human rights, the New International Economic Order, the political and legal aspects of terrorism, and third-party settlement. A substantial paper is required. *Prerequisite:* Permission of the instructor. *Four credit hours.* MR. WEISSBERG

**[332] Political Development in the Third World** Political change in selected "Third World" nations, including revolution and counterrevolution in Latin America, development in South Africa, the Israeli-Palestinian conflict, and the role and influence of the United States in such change. *Prerequisite:* Government 112 or permission of the instructor. *Four credit hours.*

**[333] Totalitarian Government and Politics** The ideological framework, organization, operation, and evolution of such political institutions as those of the Communist world, Nazi Germany, and Fascist Italy, with major attention given to the USSR. *Prerequisite:* Government 112. *Three credit hours.*

**[334] North/South Relations** The schism between north and south has ramifications for all of the issues we study in international relations. This course

will provide a critical examination of the most important theoretical approaches to north/south relations. The course will contrast the economic and political positions of states with differing economies. In this way, students can begin to understand the factors which influence the relations between advanced industrial states and states with other economic histories. *Prerequisite:* Government 112 or permission of the instructor. *Four credit hours.*

**[336] International Organization** The structure, politics, and current operation of international organizations within the nation-state system, with particular emphasis on the United Nations. *Prerequisite:* Government 215. *Three credit hours.*

**338d1 International Law** The body of rules and principles of behavior that govern states and other transnational actors in their relations with each other, as illustrated in cases and texts. *Prerequisite:* Government 215. *Four credit hours.* MR. WEISSBERG

**352 The Judicial Process** A seminar focusing on the roles played by the various actors in the legal community and on legal processes. Topics include the role of the prosecutor, the legal process, etc. Enrollment limited to 20. *Prerequisite:* Government 111 and permission of the chairman of the department. *Three credit hours.* MR. BRODY

**[353] Comparative Political Parties** The variety of parties and party systems in the world today. Special emphasis will be given to the declining importance of parties. In years in which Government 356 is not offered, special attention will be given to the American party system. Enrollment limited to 25. *Prerequisite:* Government 112 or 234. *Three or four credit hours.*

**356d1 Parties and the Electoral Process** An analysis of partisan politics and elections in the United States, emphasizing the role of parties, and dealing with candidates, their staffs, the electorate, and the media. *Prerequisite:* Government 111. *Three or four credit hours.* MR. MAISEL

**[357] Democracy and Fascism** The relationship between democracy and fascism, involving case studies of the governments of Italy, Germany, and France, and the factors that facilitate change from one system to the other. Enrollment limited. *Prerequisite:* Government major or permission of the instructor. *Three or four credit hours.*

**[358] Contemporary Japanese Politics** A survey of the political process in postwar Japan, with emphasis on some of the major institutions of political life. Japan is considered as a political system comparable to those of other industrial democracies, in spite of marked differences in social and cultural values. *Prerequisite:* Government 112 or permission of the instructor. *Four credit hours.*

**359 Comparative State Systems** A study of the state, using the examples of the state systems of the United States, Japan, and France. The approach is grounded in political economy; central issues to be addressed are the bases of legitimacy, the meanings of social justice, the rights and obligations of citizens, the

powers of bureaucracy, the foundations of law, procedural justice, market morality, and domestic and external constraints on the state's ability to govern. Marxian, liberal, and Weberian critiques will be examined in lecture and seminar format. To be offered only in 1988-89. *Prerequisite:* Government 112 or permission of the instructor(s). *Four credit hours.* MR. BOWEN AND MR. HAUSS

**372 Soviet Foreign Policy** A survey of Soviet foreign policy since World War II with focus on United States-Soviet relations and the foreign policy making process. *Three or four credit hours.* MS. MOORE

**[392] The Administrative Process** The people and agencies responsible for the implementation of public policy in the United States. Emphasis on the character of bureaucratic decision making, government organization and reorganization, public personnel systems, and administrative politics. Enrollment limited to 35. *Prerequisite:* Government 111. *Three credit hours.*

**394 Research Design** The great questions facing any research planner are questions of design. In this course students will learn the important skills of designing and writing a sophisticated research proposal, designing their own proposals for a major research project after discussions about "scientific thinking" and a review of good and faulty research designs. The course is a prerequisite for Honors in Government. The course also offers an introduction to using quantitative politics, with the purpose of helping students become comfortable with the concepts and policy appraisals and recommendations that are analyzed by quantitative methods; the latest quantitative techniques, such as artificial intelligence and decision support systems employing microcomputers. *Prerequisite:* Junior standing as a government major and permission of the department. *Four credit hours.* MR. SHAMIM

**397 Soviet Politics** A survey of the evolution of the Soviet political and economic systems since the Revolution as the historical context for Soviet leader Gorbachev's reform program. *Four credit hours.* MS. MOORE

**398 The Politics of the Developing Areas** An analytical approach to the dilemmas of political development in the Third World; most of the readings are comparative and analytic rather than country-specific and descriptive. The course will be organized around the meaning of political development in the Third World, the transition from traditional to modern societies, social change, charismatic leadership, political parties, interest groups and democracy, the role of military and the bureaucracy in political development, as well as some political problems of economic development. Recent forces of changes and political stress in the Third World, such as discussions of radical religious movements, the debt crisis, and the re-emergence of democratic regimes. *Three or four credit hours.* MR. SHAMIM

**412 Seminar on Law and Society** The relationship of political ideology, empirical, political, and social change, and the evolution of legal doctrines both in the United States and in other societies. (In 1989: American religion, churches, society, and the government, as seen from theological, philosophic, and constitutional law perspectives. Attention both to historical and to current

thinking and controversy.) Enrollment limited to 15. *Prerequisite:* Permission of the instructor. *Four credit hours.* MR. MAVRINAC

**[413] Seminar in Comparative Politics** The state of industrialized society. The problems, prospects, and processes of foreign and domestic policymaking in the Soviet Union, the United States, and France. Enrollment limited to 15. *Prerequisite:* Permission of the instructor. *Four credit hours.*

**414 Contemporary Social Theory** Developments in contemporary interpretation and criticism. Particular attention to the problem of symbolic violence as it is addressed within the fields of critical theory, (post)structuralist criticism, psychoanalysis, and feminist theory. Enrollment limited to 15. *Prerequisite:* Permission of the instructor. *Four credit hours.* MS. CAPUTI

**416d1 Western Intervention in the Non-Western World** Geopolitical, historical, ideological, and economic forces affecting Western involvement in the political and economic affairs of Third World nation-states. Case studies will include post-World War II instances of intervention and their impact on subsequent efforts at indigenous political development. An attempt will be made to isolate systematically the causes and different forms of intervention before trying to develop a theory of this phenomenon. Enrollment limited to 15. *Prerequisite:* Permission of the instructor. *Four credit hours.* MR. BOWEN

**[417] Art and Politics** A seminar inquiring into art forms as media for the expression of political values. Among others, architecture, music, painting, and sculpture will be considered, but not literary forms. Enrollment limited to 15. *Prerequisite:* Permission of the instructor. *Four credit hours.*

**[432] Seminar on Executive Leadership in the Federal Government** A research seminar examining such topics as executive selection, techniques of public management, personnel administration, policy formulation, and public liaison. Enrollment limited to 15. *Prerequisite:* Government 276 or 392 and permission of the instructor. *Four credit hours.*

**[433] American Government and the Press** The philosophical, ethical, historical, political, and legal relationships between the United States government and the press. Recent case studies, electronic as well as print media, politics, and policymaking. Enrollment limited to 15. *Prerequisite:* Government 111 and permission of the instructor. *Four credit hours.*

**[434] Women in American Politics** The role of women in contemporary American politics; controversial issues which relate particularly to women, and the ways in which the government addresses those issues. How a social movement becomes a political movement; how social issues become part of the political agenda. Enrollment limited to 15. *Prerequisite:* Government 111 and permission of the instructor. *Four credit hours.*

**438 Seminar in Policy Advocacy** Intensive study of selected public policy issues and the techniques of policy advocacy; emphasis on oral presentations of policy positions. Enrollment limited to 15. *Prerequisite:* Government 317 and permission of the instructor. *Four credit hours.* MR. MACKENZIE



**[455] Level of Analysis in Transnational Relations** The search for an understanding of world events can lead scholars to differing conclusions because interpretations of the world depend to a certain extent on the level of focus: global, nation/state, group, or individual. The course looks at the world through each of these lenses and offers an opportunity to understand better the world political scene and the frameworks through which scholars view it. Enrollment limited to 15. *Prerequisite:* Government 111 and 112 and permission of the instructor. *Four credit hours.*

**457 Seminar on the Foreign Policy of the United States** The formulation, objectives, and execution of United States foreign policy, with particular emphasis on the post-World War II period. Conducted in the form of the United States Senate Committee on Foreign Relations as presently constituted. Enrollment limited to 15. *Prerequisite:* Government 215 or equivalent and permission of the instructor. *Four credit hours.* MR. WEISSBERG

**[458] Seminar on the United Nations** Conducted in the form of a political or judicial organ of the United Nations. Case studies will be presented and analyzed, each participant assuming the role of a representative of the nation-state that is involved in the dispute. *Prerequisite:* Permission of the instructor. *Four credit hours.*

**[473] Seminar in African Politics** Focus on a selected issue relevant to contemporary Africa's problems and future. Enrollment limited to 15. *Prerequisite:* Permission of the instructor. *Four credit hours.*

**[477] Seminar in East Asian Politics** A focus on the demise of Japanese democracy in the 1930s and the rise of Japanese fascism, studied comparatively with similar developments in Germany and Italy. The empirical basis of the course will be augmented by a study of democratic and fascist theories, most particularly the relationship between liberal democracy and fascist ideologies in a nationalistic context. Enrollment limited to 15. *Prerequisite:* Permission of the instructor. *Four credit hours.*

**483, 484 Honors Workshop** Individual and group meetings of seniors and faculty participating in government honors program. *Prerequisite:* Permission of the department. 483: Nongraded; *two credit hours.* 484: Graded; *four credit hours.*  
FACULTY

**491, 492 Independent Study** A study of government through individual projects. *Prerequisite:* Government major and permission of the department chairman and instructor. *One to four credit hours.* FACULTY

**493 Public Policy Seminar** Listed as Public Policy 493 (q.v.). *Three credit hours.*  
MR. MACKENZIE

## Greek

*In the department of classics.*

**111, 111j Introductory Greek** Introduction to Homeric Greek. *Four credit hours.*  
MRS. KOONCE

112 GREEK, HISTORY

**112 Intermediate Greek** Readings in Homer's *Iliad*. *Four credit hours.* MRS. KOONCE

**131 Introduction to Greek Literature** The *Odyssey* of Homer. Successful completion of this course fulfills the College language requirement. *Prerequisite:* Greek 112. *Four credit hours.* MRS. KOONCE

**232 Attic Prose** Readings in Plato. *Three or four credit hours.* MISS BLASINGHAM

[351] **Greek Literature** Thucydides. *Three or four credit hours.*

[352] **Greek Literature** Sophocles. *Three or four credit hours.*

**353 Greek Literature** Demosthenes. *Three or four credit hours.* MISS BLASINGHAM

**354 Attic Poetry** Euripides. *Three or four credit hours.* MRS. KOONCE

[355] **Greek Literature** Herodotus. *Three or four credit hours.*

[356] **Greek Literature** Plato. *Three or four credit hours.*

[414] **Seminar** Attic orators. *Three or four credit hours.*

**491, 492 Independent Study** Reading in a field of the student's interest, with essays and conferences. *One to three credit hours.* FACULTY

[493] **Seminar** Aeschylus. *Three or four credit hours.*

## History

*Chairman, ASSOCIATE PROFESSOR RICHARD MOSS*

*Professors Frederick Gillum and Harold Raymond<sup>1</sup>; Associate Professors Lee Feigon<sup>2</sup>, Moss, Robert Weisbrot, and Marilyn Mavrincac<sup>1</sup>; Assistant Professors Joel Bernard<sup>1</sup>, J. Fraser Cocks<sup>1</sup>, Jane Hunter<sup>1</sup>, Lindsay Wilson<sup>2</sup>, and Irina Livezeanu; Visiting Assistant Professor James Webb*

History provides the opportunity to expand an understanding of the human experience through the study of one's own and other cultures and societies as they have evolved through time. It is also a rigorous intellectual discipline involving research techniques, problem solving, and the critical evaluation of evidence. The department offers a wide variety of learning experiences, including lectures, individual tutorials, discussion groups, and research seminars. Students are encouraged to take courses in many areas of history and in interdisciplinary programs and related fields. While a number of distinguished academic historians began their training at Colby, most majors find that history is excellent preparation for careers in business, law, and other professions. In recent years, media research, preservation, and museums have offered new opportunities for persons trained in history.

### **Requirements for the Major in History**

Twelve semester courses in history: at least two courses in two of the following three areas: United States, European, and non-Western history; at least one course

in the third area; History 218 or 252. When a student presents two courses in a selected area, at least one must be at the 200 level or higher. One of the courses in European history must be before 1800; one of those in American history must be before 1860. Two of the twelve courses counting toward the major may be selected from courses in related fields subject to approval by the department.

All majors must satisfy a comprehensive requirement either by taking a designated senior seminar or by a satisfactory oral presentation on a topic in the student's field of concentration in history.

Details on the division of courses among the fields and on the comprehensive requirement are available at the department office.

Majors in history may apply during their junior year for selection for admission to the department honors program. On successful completion of the work of the honors program and of the major, their graduation from the College will be noted as being "With Honors in History."

The point scale for retention of the major applies to all courses in history. No requirement for the major may be taken pass/fail.

Attention is called to the interdisciplinary concentration in quantitative analysis.

<sup>1</sup>Part-time.

<sup>2</sup>On leave full year.

**[111] Cultural History of Europe I** A survey of principal trends in European history from the fall of Rome to the eighteenth century. Significant works of literature, philosophy, political theory, art, and music examined in the context of major developments in society and politics. Selections from Aquinas, Dante, Machiavelli, Luther, and Descartes. *Four credit hours.*

**[112] Cultural History of Europe II** A survey of principal trends in European history from the eighteenth century to the present. An examination of political, intellectual, and cultural developments, including the emergence of nationalism, liberalism, socialism, fascism, and feminism. Selections from great social thinkers like Marx, Darwin, Freud, and de Beauvoir. *Four credit hours.*

**123, 124 Survey of United States History** United States history from the age of discovery to the present. Although chronological symmetry is maintained, an effort is made to demonstrate the particular value of political, economic, and constitutional interpretations. *Four credit hours.* MR. MOSS AND MR. WEISBROT

**151, 152 Self, State, and Society in East Asia** Listed as East Asian Studies 151, 152 (q.v.). *Four credit hours.* MR. SENSABAUGH AND INSTRUCTOR

**153 Western Africa and the Atlantic World** An introduction to major themes in western African history and in the continent's relationship to the wider Atlantic world. Topics include Islam in Africa, precolonial African states, the slave trades, the South Atlantic system, the commercial revolution, and European colonialism. *Four credit hours.* MR. WEBB

**154 Eastern and Southern Africa and the Indian Ocean World** An introduction to major themes in eastern and southern African history and in the continent's relationship to the wider Indian Ocean world. Topics include precolonial political

culture, Arab and Indian diasporas, the slave trades, European colonialism, the problem of underdevelopment, and apartheid. *Four credit hours.* MR. WEBB

**197 Ireland from Union (1800) to the Present** A broad introductory survey describing the origin and development of the most important elements of modern Irish culture. *Four credit hours.* MR. COCKS

**[211j] Public Lives/Private Lives: Men and Women in Europe from the Middle Ages to the Present** An examination of the effects of gender and historical situation on individuals, values, experiences, and expectations from birth to death. The lives of a number of ordinary and extraordinary people—students, workers, reformers, philosophers, kings, and saints—will be studied against the backdrop of significant events or periods in European history. *Three credit hours.*

**215 America and Asia: Attitudes and Relationships** A history of United States attitudes and relations with Asian countries, principally China and Japan, particularly as manifested in such episodes as the opium wars, the anti-Oriental exclusion laws, the open-door policy, the Pacific side of World War II, the Korean War, the war in Vietnam, and present-day U.S.-China and U.S.-Japan relations. The American view of East Asia will be compared with other accounts of life in the region. *Four credit hours.* INSTRUCTOR

**†[216] The Chinese Revolution** Modern China, concentrating on the massive upheavals that have shaped her history in the past century, from the Taiping Rebellion of 1850-1864 to the death of Mao. *Four credit hours.*

**[217j] The Administration of John F. Kennedy** A case study in presidential leadership. *Three credit hours.*

**[218] Recreating the Past** Methods of interpreting the record of past events; focusing on the works of professional historians, and including novelists and others who have contributed to the understanding of history. *Three or four credit hours.*

**†[231] Medieval History, 500-1300** A survey of the society and culture of the Middle Ages. Topics include feudalism, monasticism, the proprietary church system, the agricultural revolution, the Crusades, the rise of national monarchies and the struggles between church and state, scholasticism, troubadour poetry, and Gothic cathedrals. *Three or four credit hours.*

**†[232] Renaissance and Reformation, 1300-1600** A survey of the movements for ethical, political, and religious reform in Europe and their impact on the family, the church, and the state. Topics include humanism, the rise of capitalism, art and patronage, education and printing, the search for utopias, and the realities of social disorder and political conflict. *Three or four credit hours.*

**233 Comparative World History, 1400-1800** A comparative examination of the processes of historical change in Africa, South America, North America, Australia, and Euroasia. Topics include patterns of global ecological change, colonization and overseas trade, slavery in world history, and social change and resistance. Designed to provide solid, historical knowledge of the world beyond the West and to put historical knowledge of the West into comparative perspective. *Four credit hours.* MR. WEBB

**234 Comparative World History, 1800-1960** A sequel to Government 233. Topics include European colonial empires, systems of forced labor, the phenomenon of secondary empire, the evolution of the global economy, and anti-colonial struggles for independence. *Four credit hours.* MR. WEBB

**236 History of Women in Europe** European gender roles and women's experiences from the mid-nineteenth century through the second world war: interaction of industrialization, wars, and reform movements with women's evolving legal and social positions. Focus on France and Britain. *Four credit hours.* MS. MAVRINAC

**237 The Emergence of Modern Britain, 1688-1867** England during the American, French, and Industrial revolutions. *Three credit hours.* MR. GILLUM

**238 The Decline of Britain, 1867-1980** Britain from the age of imperialism through the era of world wars and to the dissolution of the empire. *Three credit hours.* MR. GILLUM

**252 Introduction to History** This course is divided into three units: the first introduces students to history's history and philosophical problems; the second explores the nature of historical disputes with emphasis on the nature of historical evidence and its use; the third introduces the problems of doing original research in history. *Four credit hours.* MR. MOSS

**[254] Comparative Communism** An examination of Marxist theory and the reality of the two main states calling themselves Marxist—the Soviet Union and the People's Republic of China. *Four credit hours.*

**[257] History of Women in America** An examination of how gender has shaped the personal and collective experiences of women; the changing definitions of femininity throughout history, women's contributions to work, and ways women have accepted or challenged notions of femininity and their roles in home, community, and the work place. *Three credit hours.*

**259 Modern France** An introductory survey of the paradoxes in French society from the mid-nineteenth century to de Gaulle's regime in the Fifth Republic. The drama of conflict between conservative groups and radicals is studied in the context of persistent nationalism, cultural imperialism, and economic modernization. *Four credit hours.* MS. MAVRINAC

**261, 262 Russian History, from Early Times to the Present** The first semester of this survey emphasizes social, political, and cultural trends in the imperial period. The second term covers social, political, and cultural trends in the revolutionary and Soviet periods. Several films will be used. *Four credit hours.* MS. LIVEZANU

**272 War and Revolution in Vietnam** Listed as Government 271 (q.v.). *Three or four credit hours.* MR. BOWEN

**277 Afro-American History: From Slavery to Freedom** A study of black experience in America, focusing on the nature of racism, the experience of slavery, the role of Afro-Americans in shaping the nation's history, and the struggle for equality from colonial times until the present. *Three credit hours.* MR. WEISBROT

**294 The Use of the Computer in Historical Studies** An introduction to the computer for historical research. Group projects, using nineteenth-century United States census surveys, French arrest and British parliamentary records, provide "hands-on" experience. Data analysis and critiques of quantitative history writings are included. *Two or three credit hours.* MS. MAVRINAC

**295j Internship in History** Internships in museums, historical restoration, historical societies, and preservation centers. Nongraded, credit or no entry. *Prerequisite:* Permission of the instructor. *Zero to three credit hours.* FACULTY

**311j Tutorial in History** Individual or small group sessions, with emphasis on research methods, especially for juniors. Enrollment limited. *Prerequisite:* Permission of the instructor. *Three credit hours.* MS. HUNTER

**[312] The Atlantic Revolutions** A comparative evaluation of the origins, stages of development, and significance of the French and American revolutions from circa 1750 to 1815; theories of revolution and historiography of the "Atlantic" revolutions. *Prerequisite:* Permission of the instructor. *Three or four credit hours.*

**[313] East Central Europe: Nationalism and Nation-States** From the turn of the century to 1945, an examination of the history of the minority nationalities of the German, Austro-Hungarian, and Russian empires before World War I and their independent statehood as Poland, Czechoslovakia, etc., after the war. Topics include backwardness and modernization, the dissolution of the empires, socialist and nationalist revolutions, radical movements of the left and right, national minorities, the Jewish question, and German and Soviet influence in the interwar period. *Four credit hours.*

**314 Right-Wing Nationalism and Fascism** A theoretical and empirical exploration of right-wing movements in twentieth-century Europe; different theories of fascism, and case studies of German, Italian, and other fascist movements in Eastern and Western Europe. Several films will be used. *Four credit hours.* MS. LIVEZEANU

**315 The First World War and the Crisis of European Society** Total war without generals or heroes. Emphasis will be given to the effect of the war on British and German societies. *Three credit hours.* MR. GILLUM

**316 The Second World War** A military and political analysis of the events and forces in the war of 1939-1945 as it affected the countries and the people involved, focusing on the European theatre of operations. Some previous knowledge of European history is recommended. *Three credit hours.* MR. GILLUM

**†[317] The Introduction of Marxism into China** The development of Marxist ideology in Europe interwoven with the history of the evolution of Chinese thought and society in the late nineteenth and early twentieth centuries as a result of the impact of Western imperialism. The origin of the Chinese environment into which Marxist thought was received and transformed and the impact of Marxist ideas on China through the early 1930s. *Four credit hours.*

**†[318] The People's Republic of China** The development of Chinese Communist theories and practice since 1949 and their relation to socialist ideas and activities in other countries. Special emphasis will be placed on the socioeconomic

background in China within which Maoist theory developed, particularly on the problems involved in attempting to bring about a socialist reorganization of state and society while engaged in industrial development. *Four credit hours.*

**319d2 Economic Change in Twentieth-Century Africa** A seminar on the evolution of African economies in the twentieth century. Topics include colonial and post-colonial economic policy, the influence of international theories of development. Designed to provide a solid, historical foundation for understanding contemporary problems. No prerequisites, but a course in principles of economics recommended. *Three credit hours.* MR. WEBB

**†[331] Women, the Family, and the State in Europe, 400 B.C.-1850 A.D.** A survey of ideas about women, the family, and the state expressed by prominent social thinkers from Plato to Darwin and their critics. Exploring the question of how Christianity, revolutionary rhetoric, and science supported or challenged prevailing attitudes and mores regarding the nature and place of the sexes; the relationship between ideas about gender and the reality of women's lives from classical Greece to the Industrial Revolution. *Prerequisite:* History 111 or 112 or permission of the instructor. *Three or four credit hours.*

**333 Medieval England** A political survey of English history in the Saxon, Norman, Angevin, Lancastrian, and Yorkist periods. *Three credit hours.* MR. GILLUM

**334j Crisis and Reform: The 1960s** The Utopian hopes for government during the Kennedy and Johnson years, both in solving social problems and in containing Communism around the world. Readings focus on the shaping of federal policies, their domestic and global impact, and the cultural and political legacy of this era. *Three or four credit hours.* MR. WEISBROT

**[336] Tudor-Stuart England** The contest of religious doctrines and the conflict of political concepts, from the Renaissance monarchy of Henry VII to the "Glorious Revolution" of 1688. *Three credit hours.*

**†[338] A Constitutional and Legal History of Medieval England** English governmental and legal principles in the Saxon period, in the time of Henry II, and in the thirteenth century. Developments since 1307 will be considered briefly. *Three credit hours.*

**[351] France in the Age of Absolutism and Enlightenment** A close look at society, politics, science, and culture in early modern France; the weight of tradition measured against the need for reform. Readings include works by Richelieu, Descartes, and Voltaire, as well as first-hand accounts of popular revolts, the witch-craze, and life among the less privileged; computer simulation of prospects for social mobility in the world of Louis XIV. *Three or four credit hours.*

**[352] Intellectual and Cultural History of Modern Europe** A historical survey of the changes in the idea of history expressed by representative speculators from Hegel to Heidegger. Major attention will be given to the contributions made by Darwin, Marx, and Freud in the development of the modern ideologies of liberalism, Communism, and fascism, and the production of the cultural phenomenon of existentialism. *Three or four credit hours.*

**353d2 American Culture and Society, 1865-1975** The development of modern American culture from the Gilded Age to the "Me" decade, from the Civil War to Vietnam. Social change and the evolving meaning of work, leisure, the individual, and the social experiment as reflected in literature, film, music, and art. *Three or four credit hours.* MS. HUNTER

**[354] American Intellectual History, 1865-1917** An analysis of the dominant intellectual controversies during America's transition from an agrarian to an industrialized society. Focus is upon the effort made by American thinkers to redefine the meaning of community and the relationship of the individual to that community. *Three credit hours.*

**[355] The French Revolution and Napoleon** The origins and political and social development of the French Revolution and Napoleonic dictatorship, 1789-1815. Considerable attention will be given to theories of revolution. *Three credit hours.*

**356 Revolution, War, and Counter Revolution in the Atlantic World 1794 to c 1850** The rise of the Napoleonic empire and the "World War" of 1794-1815, the attempts to restore the European order and the new outbreaks of revolution in 1830 and 1848. *Three credit hours.* MR. RAYMOND

**[357] Modern Germany** The political and economic development and the international influence of Germany from 1806 to 1945. *Three credit hours.*

**359 The Atlantic Revolutions 1600 to c 1794** An examination of political and social revolution in the "Atlantic world" with particular attention to the French Revolution of 1789-1794. The English revolution of 1640, the American revolution, and the structure of the "old regime" in Europe will be examined. *Four credit hours.* MR. RAYMOND

**372d1 The American Civil War** The Civil War and its military and political history from about 1860 to 1865. *Three credit hours.* MR. RAYMOND

**[373] American Political History, 1865-1929** American reform from the Reconstruction to the influence of the progressives. Topics include the changing nature of national politics in response to sectional and racial tensions, the growth of industry and urban life, agrarian and labor discontent, and the country's deepening involvement in world affairs. *Three or four credit hours.*

**[374] American Political History, 1929 to the Present** The accelerated growth of federal power and responsibilities in meeting the challenges posed by the Great Depression, World War II, national security needs in a nuclear age, and rising demands by blacks and other minorities for equal rights. No prerequisites, but develops themes presented in History 373. *Three or four credit hours.*

**376 America: The New World, 1607-1783** The American colonies from their earliest settlement to the Revolution; the emergence of a unique American society and mind from the Puritans to George Washington. *Three or four credit hours.* MR. BERNARD

**[377] The Coming of the Civil War** An examination of American history from 1840 to 1861, focusing on the breakdown of the American federal democracy and the



causes of the Civil War. Consideration of alternative explanations put forward by contemporaries and by later historians. *Prerequisite:* A course in American history or permission of the instructor. *Three or four credit hours.*

**[378] The United States, 1783-1860** The problems of the new nation, including the Constitution, geographical expansion, religious revivalism, reform, democracy, slavery, and sectionalism. *Three or four credit hours.*

**f[379] Black History** The history of the black American and race relations from the Harlem Renaissance to 1955, including blacks and the New Deal and World War II, and events in the Truman and Eisenhower administrations. *Prerequisite:* History 277, 278, or permission of the instructor. *Three credit hours.*

**393 American Cultural History, 1600-1865** American life from the founding to the Civil War as seen from a social and intellectual perspective. Emphasis on the growth of a unique American mind and its relationship to new world social and political development. *Three credit hours.* MR. MOSS

**415 Seminar in American History: Adolescence** An exploration of the changing significance and experience of youth in relation to the family, the peer group, the economy, and the society. Readings include theory and a range of period documents. *Three or four credit hours.* MS. HUNTER

**416A Seminar in American History: Alcohol and Alcohol Control in America** A research seminar on the history of alcohol, alcohol abuse, and attempts to control or eliminate liquor. *Prerequisite:* Permission of the instructor. *Three or four credit hours.* MR. BERNARD

**416B Seminar in American History: Photography and the Genteel Tradition, 1870-1955** Principal intellectual issues of the period, and how the work of major photographers corresponds to the responses of thinkers; determining the elements of intellectual history. *Prerequisite:* Permission of the instructor. *Four credit hours.* MR. COCKS

**[419] Seminar: Life History and the Historical Moment** An examination of the impact of cultural change on the lives of individuals. Using sources drawn from psychology, art, sociology, and literature, as well as history, the course will explore changing attitudes toward childhood, sexuality, and death from the Middle Ages to the present. *Four credit hours.*

**432 Seminar in Black History "Black Thought and Leadership."** An intensive examination of selected leaders in Afro-American history, focusing on civil rights activists and black nationalists of the past century; biographies and writings of W. E. B. DuBois, Marcus Garvey, Martin Luther King, and Malcolm X, among others. *Prerequisite:* Permission of the instructor. *Four credit hours.* MR. WEISBROT

**458 Seminar in Modern Chinese History** Listed as East Asian Studies 458 (q.v.). *Prerequisite:* Permission of the instructor. *Four credit hours.* INSTRUCTOR

**472 Seminar in Russian and East European History: The Intelligentsia** Intensive study of intelligentsia responses to the political and social conditions of their

societies. Topics include the Slavophile-Westernizer controversy, populist movements, Marxist trends, women of the intelligentsia, Soviet and East European dissidents. *Prerequisite:* Permission of the instructor. *Four credit hours.* MS. LIVEZEANU

**491, 492 Independent Study** A study of history through individual projects. *Prerequisite:* Permission of the instructor. *One to four credit hours.* FACULTY

**[494] The Holocaust** An examination of the Holocaust through literary and historical approaches, drawing on both primary and secondary sources, exploring the facts of the Holocaust, and confronting the moral and philosophical challenges posed by the event. Concurrent enrollment in appropriate section of English 494 required. *Prerequisite:* Permission of the instructor. *Four credit hours.*

**[497] Religion and Nationalism in Ireland** A close examination of the content and intermingling of the two prominent forces shaping Irish society today, and a consideration of the effect this interaction has had on Irish immigrant communities. *Four credit hours.*

## Human Development

*Director,* INSTRUCTOR BRUCE VERMEULEN

STEERING COMMITTEE: *Professors Miriam Bennett (Biology), Arthur Champlin (Biology), Suzanne Falgout (Sociology and Anthropology), Yeager Hudson (Philosophy and Religion), Patricia Ramsey (Education), Robert Reuman (Philosophy), Nicholas Rohrman (Psychology), Sonya Rose (Sociology and Anthropology), Jonas Rosenthal (Sociology and Anthropology), Edward Yeterian (Psychology), and six students*

A multidisciplinary study of the origin and development of man and woman. Academic aims of the program are to provide an understanding of the development of humans as biological and psychological organisms; an appreciation of the relationship between individuals and their social environment; an opportunity to consider possible future directions for both the individual and society; and working experience with a local, state, or regional agency involved in some aspect of human development.

This program will be phased out as of the Class of 1989.

### **Requirements for the Major in Human Development**

In biology: 121, 122, and either 134 or 271.

In human development: 394, 493.

In philosophy: 331, 332.

In psychology: 111 and two additional courses, not to include 214 or 255.

In sociology: 115; 131 or Anthropology 111; one additional course in sociology or anthropology, not to include Sociology 237 or 271.

Either Sociology 271 or Psychology 214.

Either Psychology 255 or Sociology 237.

An additional nine credit hours above the introductory level in one of the following areas: anthropology, biology, philosophy-religion, psychology, or sociology.

At least one independent study project in human development taken either in January or one of the semesters.

The point scale for retention of the major applies to all courses offered toward the major. No requirement for the major may be taken pass/fail.

**491, 492 Independent Study** Individual study of special problems in human development in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor and the program director. *One to four credit hours.* FACULTY

**493 Seminar in Human Development** An interdisciplinary seminar required of all senior majors in human development. Students are expected to integrate their previous work in the major into an articulated perspective. *Three credit hours.* MS. FALGOUT

## Italian

*In the department of modern foreign languages.*

*Visiting Instructor David Mills*

**[125, 126] Elementary Italian** Introduction to the language, with emphasis on understanding, speaking, and reading. Use of taped materials in the language laboratory is a regular part of the class work. *Four credit hours.*

**127 Intermediate Italian** Intensive review of the fundamentals of the language. Practice in the oral-aural skills, supplemented by work in the language laboratory and composition, all based on a variety of modern readings. *Prerequisite:* Italian 126 or permission of the instructor. *Three credit hours.* MR. MILLS

**[138] Introduction to Italian Literature and Culture** Representative works by major authors since Unification, emphasizing the period since World War II. Parallel readings in the historical and cultural background. Regular practice in composition. *Prerequisite:* Italian 127 or permission of the instructor. *Four credit hours.*

## January Program

**002j Emergency Medical Technician Training** Intensive training in basic techniques practiced in emergency medicine. Theory and practical exercises given in conjunction with Kennebec Valley Vocational Technical Institute. *Prerequisite:* Permission of the faculty sponsor. *Noncredit.* INSTRUCTOR

**091j, 291j Individual Projects** Each department and interdisciplinary major sponsors a number of individual January program projects, primarily for majors, to be offered under the appropriate subject heading. At the time of registration the student and sponsor will determine if the project is to be graded or nongraded, and if it is to be for credit or noncredit. The number of credits possible varies with department or program. *Prerequisite:* Permission of the sponsor. 091j; *noncredit.* 291j; *two or three credit hours.* FACULTY

**Other January Programs** Most courses to be offered in January are listed with the regular semester offerings of each department or program. A "j" following the

course number indicates a January Program course. A complete list of offerings will be available in the January Program Course List, issued in October when students elect a course for the January term. Enrollment is limited to 30 or fewer students in nearly all courses. Freshmen have priority in all 100-level courses unless otherwise indicated in the Course List.

## Japanese

*In the department of modern foreign languages. All courses in Japanese are part of the East Asian studies program.*

*Assistant Professor Tamae Prindle; Visiting Instructor Tetsuo Kinoshita*

**125, 126 Elementary Japanese** Introduction to the spoken and written language, to provide a thorough grounding in all the language skills: speaking, listening, reading, and writing. *Five credit hours.* MS. PRINDLE

**127, 128 Intermediate Japanese** A continuation of the methods and goals used in elementary Japanese. *Prerequisite:* Japanese 126. *Four credit hours.* MS. PRINDLE AND MR. KINOSHITA

**321, 322 Third-Year Japanese** Advanced readings in Japanese. Designed primarily for those students who have had substantial experience in a Japanese-speaking setting. *Prerequisite:* Japanese 128 or permission of the instructor. *Three or four credit hours.* MS. PRINDLE AND MR. KINOSHITA

**332 Money and Society in Japanese Literature** An analysis of Japanese novels and short stories (in translation) from the standpoints of Western and Japanese theories on society, culture, and economy. Theoretical works include Fried's *The Evolution of Political Society*, Lévi-Strauss' *Structural Anthropology*, Fromm's *Anatomy of Human Destructiveness*, Nakane's *Japanese Society*, and Doi's *The Anatomy of Independence*. Novels and short stories include Aaikaku's *Family Storehouse*, Kôyô's *Gold Demon*, Ichiyô's *Troubled Waters (Nigorie)*, Sôseki's *And Then*, Kobayashi Takiji's *The Cannery Boat*, and Genji Keita's "The Lucky One." *Four credit hours.* MS. PRINDLE

**421, 422 Fourth-Year Japanese** Further readings and writing in Japanese and use of current audio-visual materials. *Prerequisite:* Japanese 322 or permission of the instructor. *Three or four credit hours.* MR. KINOSHITA

**491, 492 Independent Study** Individual projects in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *Two to four credit hours.* FACULTY

## Latin

*In the department of classics.*

**111 Intensive Elementary Latin** An intensive course in Latin grammar and syntax. *Four credit hours.* MR. WALKER

**112 Intensive Intermediate Latin** Selected readings from Cicero. *Four credit hours.* MR. WALKER

**131 Introduction to Latin Literature** Roman comedy. Successful completion of this course fulfills the College language requirement. *Prerequisite:* Latin 112 or permission of the instructor. *Four credit hours.* MRS. KOONCE

**[232] Introduction to Latin Poetry** Readings in Terence. *Prerequisite:* Latin 112 or permission of the instructor. *Three or four credit hours.*

**[251] Latin Literature** Roman drama. *Three or four credit hours.*

**[351] Latin Literature** Lucretius. *Three or four credit hours.*

**[352] Latin Literature** Livy. *Three or four credit hours.*

**[353] Latin Literature** Roman elegy and lyrics. *Three or four credit hours.*

**354d1 Latin Literature** Cicero: selected speeches. *Three or four credit hours.* MISS BLASINGHAM

**[355] Latin Literature** Roman satire. *Three or four credit hours.*

**[356] Latin Literature** Cicero: letters. *Three or four credit hours.*

**357d2 Latin Literature** Horace: *Odes* and *Ars Poetica*. *Three or four credit hours.* MR. WALKER

**[358] Latin Literature** Tacitus. *Three or four credit hours.*

**[359] Latin Literature** Virgil: *Eclogues* and *Georgics*. *Three or four credit hours.*

**[371] Latin Literature** Terence. *Three or four credit hours.*

**491, 492 Independent Study** Reading in a field of the student's interest, with essays and conferences. *One to three credit hours by prior arrangement.* FACULTY

†**[494] Seminar** Virgil: *Aeneid*. *Three or four credit hours.*

## Legal Studies

*Director,* PROFESSOR ALBERT MAVRINAC

*ADVISORY COMMITTEE:* Professors William Cotter (*Government*), Frederick Gillum (*History*), Sandy Maisel (*Government*), Mavrinnac (*Government*), Robert McArthur (*Philosophy*), James Meehan (*Economics*), Sonya Rose (*Sociology*), Thomas Tietenberg (*Economics*), and Guenter Weissberg (*Government*)

The legal studies program consists of a selection of courses that examine the law and the legal process from diverse disciplinary perspectives. In the tradition of the liberal arts, these courses focus on the law as it relates to other areas of knowledge. The program is designed particularly for the student who is not planning to go to law school and is specifically not part of a pre-law curriculum. Courses range from those dealing with such specialized areas of the law as constitutional, international, and business, to those which examine the law in the

broader perspectives of economic thought or moral philosophy. Some courses focus on the Anglo-American common law, while others use comparative techniques to gain insights into the legal systems of other societies with different legal traditions. The professors in these courses come from many disciplines and are all active in research, writing, or consulting on legal matters or related subjects. Two are members of the bar; one is a specialist in the law of the sea; others have had extensive specialized training in American law schools; several have worked in or with federal, state, or foreign governments.

Students who are interested in attending law school should consult the committee on professional preparation for law and government service, and should avoid overconcentration on law-related courses as undergraduates.

#### **Courses Offered in the Legal Studies Program**

*Administrative Science:* 354 Law.

*Economics:* 312 Topics in Law and Economics; 331 Industrial Organizations and Antitrust Economics; 332 Regulated Industries.

*Government:* 114j The Constitution and Civil Rights; 118j Crooks, Cops, and the Constitution; 313 American Constitutional Law I; 314 American Constitutional Law II; 319 Law and Social Change: Women and Minorities; 338 International Law; 412 Seminar on Law and Society; 458 Seminar on the United Nations.

*History:* 338 A Constitutional and Legal History of Medieval England.

*Philosophy:* 118 Central Philosophical Issues: Philosophy of Law.

## Literature in Translation

*Offered by the departments of classics, English, and modern foreign languages.*

**133 Greek Myth and Literature** Listed as Classics 133 (q.v.). *Three or four credit hours.* MR. WALKER

†[177] **Topics in Classics** Listed as Classics 177 (q.v.). *Two or three credit hours.*

†[178] **Topics in Classics** Listed as Classics 178 (q.v.). *Two or three credit hours.*

**[231, 236] Literature of China and Japan in Translation** Listed as East Asian Studies 231, 232 (q.v.). *Four credit hours.*

**[232] Greek Tragedy** Listed as Classics 232 (q.v.). *Three or four credit hours.*

†[233] **Topics in Russian Literature: Dostoevsky** Listed as Russian 231 (q.v.). *Three credit hours.*

†[234] **The Heroic Ideal in Early Greek Poetry** Listed as Classics 234 (q.v.). *Three or four credit hours.*

**236 Images of Women in French Literature** Listed as French 236 (q.v.). *Four credit hours.* MS. DIACONOFF

**237, 238 Russian Literature in Translation I, II** Listed as Russian 237, 238 (q.v.). *Three or four credit hours.* MR. MAYBERRY AND MS. MCCARTHY

- [239] **Topics in Russian Literature** Listed as Russian 232 (q.v.). *Three credit hours.*
- 252 **Introduction to Chinese Literature in Translation** Listed as Chinese 252 (q.v.). *Three or four credit hours.* INSTRUCTOR
- [276] **Dante in Translation** Listed as English 276 (q.v.). *Three or four credit hours.*
- †[278] **Italian Fiction and Film** Listed as English 278 (q.v.). *Four credit hours.*
- 373, 374 **The Development of Dramatic Art I, II** Listed as English 373, 374 (q.v.). *Three or four credit hours.* MR. KOONCE
- [375] **Studies in Drama** Listed as English 375 (q.v.). *Three or four credit hours.*
- †[437] **The Literature of Existentialism** Listed as English 437 (q.v.). *Three or four credit hours.*

## Mathematics

*Chairman, PROFESSOR HOMER HAYSLETT*

*Professor Hayslett; Visiting Professor William Berlinghoff; Associate Professors Donald Small, Dale Skrien<sup>1</sup>, and Karl Norton; Assistant Professors Carol Bassett<sup>2</sup> and Amy Boyd<sup>3</sup>; Visiting Assistant Professors Bruce Frech and Martin Bier; Visiting Instructor Kevin Farrell*

The mathematics department offers courses in computer science (see listings under "Computer Science") and mathematics for students who: (1) plan a career in an area of pure or applied mathematics or computer science; (2) need mathematics as support for their chosen major; or (3) elect to take mathematics as part of their liberal arts education or to partially fulfill the science requirement.

Colby mathematics majors in recent years have entered graduate school to do advanced work in such areas as mathematics, statistics, computer science, bio-mathematics, and physics. They have also used the major as a solid foundation for careers in teaching, law, insurance, banking, management, and other areas.

### **Requirements for the Major in Mathematics**

Mathematics 361, 362, 401, 402, 433, 434; and 12 additional hours selected from the following: Computer Science 231 or mathematics courses numbered 300 or above.

The point scale for retention of the major applies to all courses taken in the department. No requirement for the major may be taken pass/fail. The comprehensive examination in the major is to be taken in the senior year.

Freshmen planning to major in mathematics or one of the physical sciences should elect Mathematics 123 or should elect in the sequence Mathematics 121, 122, 222, 253 (advanced placement or high school background would determine where a student should enter the sequence).

Freshmen who intend to enroll in Mathematics 119, 121, 122, or 123 must take the mathematics placement test during freshman orientation.

### **Requirements for the Major in Mathematics with a Concentration in Computer Science**

Computer Science 125, 132, 231; Mathematics 124 or 222; 253; 361; 378; 401; 402; 433; and at least five additional credit hours in 300-level or 400-level courses in either computer science or mathematics. Mathematics 332 and 372 are recommended.

Attention is called to the interdepartmental majors in economics-mathematics and philosophy-mathematics, and to the concentration in applied mathematics.

Students interested in teaching, private and public, are urged to read the education section of the catalogue and to contact a member of the education department.

<sup>1</sup>On leave full year.

<sup>2</sup>Part-time.

<sup>3</sup>Joint appointment in administrative science and mathematics.

**011j Pre-Calculus** Absolute values; equations of lines, circles, and parabolas; functional notation; combining functions; graphing functions; applications of functions to word problems; polynomial and rational functions; trigonometric functions of angles; trigonometric functions of real numbers. *Noncredit.* MRS. BASSETT

**111 Introduction to Mathematics** The historical and contemporary role of mathematics in culture and intellectual endeavor; history of mathematics; the nature of contemporary mathematics; mathematics as a tool for problem solving; logical reasoning; topics from geometry. *Three credit hours.* INSTRUCTOR

**112 Non-calculus Statistics** Description of data, confidence intervals, tests of hypotheses, non-parametric statistics, correlation and regression (including multiple regression), use of computer statistical packages. *Four credit hours.* INSTRUCTOR

**[115] Finite Mathematics** Selected topics from modern mathematics, including probability, logic, linear programming, and the theory of games. Statistics is not treated but is offered in other courses. *Four credit hours.*

**[117] Introduction to Discrete Mathematics** A study of logic, sets, relations, and combinatorics. *Four credit hours.*

**118 Computational Linear Algebra with Applications** An introduction to linear algebra, taught from a computational and algorithmic point of view, with applications from a variety of disciplines. Matrices and determinants, linear systems, vector spaces, and eigenvalues. *Four credit hours.* INSTRUCTOR

**119d Introduction to Calculus and Its Applications** Differential and integral calculus of functions of one variable: derivatives, integrals, and applications. Includes exponential and logarithmic functions. Emphasis on geometric understanding; applications taken from the social and biological sciences. Computer-based symbolic manipulator will be used. Not part of a calculus sequence. Credit is not given for both Mathematics 121 and 119. Students electing this course must take the mathematics placement test during freshman orientation. *Four credit hours.* INSTRUCTOR

**121d Calculus I** Differential and integral calculus of one variable: limits and continuity; differentiation and its applications, antiderivatives, the definite integral and its applications. Students electing this course must take the mathematics placement test during freshman orientation. *Four credit hours.* FACULTY



**122d Calculus II** Further study of differential and integral calculus of one variable: exponential and logarithmic functions, techniques of integration, infinite series. *Prerequisite:* Mathematics 121. *Four credit hours.* FACULTY

**123 Calculus of One and Several Variables I** Differential calculus of one and several variables: functions, limits, continuity, differentiation. May not be taken for credit if the student has earned credit for Mathematics 121. Recommended for students who have had a calculus course in high school. Note that Mathematics 123 and 124 satisfy all calculus prerequisites for upper-level courses. Students electing this course must take the mathematics placement test during freshman orientation. *Four credit hours.* FACULTY

**124 Calculus of One and Several Variables II** Integral calculus of one and several variables: integration and infinite series. May not be taken for credit if the student has earned credit for Mathematics 122. Note that Mathematics 123 and 124 satisfy all calculus prerequisites for upper-level courses. *Prerequisite:* Mathematics 123. *Four credit hours.* FACULTY

**193 Mathematics Seminar I** An introduction to some of the basic ideas of mathematics: conjectures, refutations, proofs. Topics may include number theory, set theory, recursion, combinatorics, geometry. *Prerequisite:* Freshman standing and permission of the instructor. Nongraded. *One credit hour.* INSTRUCTOR

**194 Mathematics Seminar II** Topics may include number theory, set theory, recursion, combinatorics, geometry. *Prerequisite:* Freshman standing and permission of the instructor. Nongraded. *One credit hour.* INSTRUCTOR

**222d Multivariable Calculus** Vectors, lines, and planes; limits, continuity, derivatives, and integrals of vector-valued functions; partial and directional derivatives; multiple integrals; introduction to calculus of vector fields; applications. May not be taken for credit if the student has earned credit for Mathematics 124. *Prerequisite:* Mathematics 122. *Four credit hours.* FACULTY

**231d Elementary Statistics and Regression Analysis** Elementary probability theory, special discrete and continuous distributions, descriptive statistics, sampling theory, confidence intervals, tests of hypotheses, correlation, linear regression, and multiple linear regression. Examples and applications slanted toward economics. May not be taken by students who have taken Mathematics 241. *Prerequisite:* Mathematics 119, 121, or 123. *Four credit hours.* INSTRUCTOR

**[241d, 242] Elementary Statistics I, II** Statistics I: Descriptive statistics, elementary probability theory, binomial and normal distributions, elementary sampling theory, tests of hypotheses, confidence intervals, correlation. Applications are emphasized. Offered each semester. Statistics II: A continuation, including regression, analysis of variance, and nonparametric statistics. Offered second semester only. Neither course open to mathematics majors or students who have taken Mathematics 231. *Prerequisite:* Mathematics 119, 121, or 123. Mathematics 241: *four credit hours*; 242: *two credit hours.*

**253d Linear Algebra** Solutions of linear systems of equations, matrix algebra, determinants. Introduction to abstract vector spaces and linear transformations,

eigenvalues, and eigenvectors. Includes material on logic, sets, relations, functions, and proof techniques. *Prerequisite:* Mathematics 122 or 124. *Four credit hours.*  
INSTRUCTOR

**272 Introduction to Mathematical Modeling** Deterministic, probabilistic, and simulation modeling of situations and phenomena—such as arms races, spread of epidemics, cultural stability, population growth, political coalitions—from a variety of subject areas. *Prerequisite:* Mathematics 119, 121, or 123. *Four credit hours.* INSTRUCTOR

**293 Sophomore Seminar I** Topics may include number theory, set theory, recursion, combinatorics, geometry, mathematical modeling. *Prerequisite:* Sophomore standing and Mathematics 122 or 124. *Nongraded. One credit hour.*  
FACULTY

**294 Sophomore Seminar II** Topics may include number theory, set theory, recursion, combinatorics, geometry, mathematical modeling. An introduction to the techniques of reading mathematical journals and making oral presentations. *Prerequisite:* Sophomore standing and Mathematics 122 or 124. *Nongraded. One credit hour.* FACULTY

**311 Introduction to Differential Equations** Theory and solution methods of first-order ordinary differential equations; linear differential equations; first-order linear systems; qualitative behavior of solutions; Laplace transforms; series solutions; existence and uniqueness of solutions; applications. *Prerequisite:* Mathematics 253, and 124 or 222. *Three credit hours.* INSTRUCTOR

**312 Topics in Differential Equations** A continuation of Mathematics 311. Series solutions; boundary value problems; numerical methods; topics chosen from nonlinear differential equations, stability, difference equations, Fourier series, partial differential equations, and delay differential equations. *Prerequisite:* Mathematics 311. *Three credit hours.* INSTRUCTOR

**[315] Introduction to Mathematical Systems** Qualitative discussion of the nature of systemic analysis, with examples drawn from computer science, ecological systems, human physiology, physics, and economics. Topics include linear systems of differential equations, control theory, nonlinear stability theory, numerical solutions of systems, discrete systems. *Prerequisite:* Mathematics 253, and 124 or 222, and knowledge of a computer language. *Three credit hours.*

**[332] Introductory Numerical Analysis** Solution by numerical methods of linear and nonlinear equations, systems of equations, and differential equations; numerical integration; polynomial approximation; matrix inversion; error analysis. A time-sharing computer system will be used to solve problems. *Prerequisite:* Some programming experience, Mathematics 253, and 124 or 222. *Three credit hours.*

**336d1 Mathematical Economics** Listed as Economics 336 (q.v.). *Prerequisite:* Economics 223 or 224 and Mathematics 124 or 222. *Three credit hours.* MS. SAADATMAND

**[352] Complex Variables** The arithmetic and calculus of complex numbers and functions. The properties of analytic functions, including Cauchy's integral

theorem and formula, representation by Laurent series, residues and poles, and the elementary functions. *Prerequisite:* Mathematics 253, and 124 or 222. *Three credit hours.*

**361, 362 Higher Algebra** Introduction to algebraic structures, such as groups, rings, integral domains, and fields. *Prerequisite:* Mathematics 253, and 124 or 222, or permission of the instructor. *Three credit hours.* INSTRUCTOR

**372 Discrete Mathematics** Selected topics in modern mathematics and operations research that have applications in current societal problems. The content will vary from year to year, but topics such as graph theory, combinatorics, game theory, linear programming, optimization techniques, and Markov chains may be considered. *Prerequisite:* Mathematics 253, and 124 or 222, or permission of the instructor. *Three credit hours.* INSTRUCTOR

**378 Introduction to the Theory of Computation** Formal languages, computability, non-computability, complexity classes, propositional calculus, predicate calculus. *Prerequisite:* Computer Science 125, Mathematics 361. *Three credit hours.* INSTRUCTOR

**381, 382 Mathematical Statistics** Random variables, special probability distributions, moment generating functions, maximum likelihood estimators, sampling distributions, regression, tests of hypotheses, confidence intervals, linear models, analysis of variance. Although applications are discussed, emphasis is on theory. *Prerequisite:* Mathematics 124 or 222. *Three credit hours.* MS. BOYD

**401, 402 Mathematics Seminar** Discussion of topics in pure and applied mathematics. Nongraded. *Prerequisite:* Senior standing in the mathematics major or a combined major including mathematics. *One credit hour for the year.* FACULTY

**433 Real Analysis** More advanced topics of calculus and an introduction to real analysis. *Prerequisite:* Mathematics 124 or 222 and senior standing, or permission of the instructor. *Three credit hours.* INSTRUCTOR

**434 Topics in Real Analysis** Content may vary from year to year, but topics such as topology, measure theory, functional analysis, or related areas may be considered. *Prerequisite:* Mathematics 433. *Three credit hours.* INSTRUCTOR

**491, 492 Independent Study** Independent study in an area of mathematics of particular interest to the student. *Prerequisite:* Mathematics major and permission of the department. *One to four credit hours.* FACULTY

## Modern Foreign Languages

*Chairman,* DANA PROFESSOR JEAN BUNDY

*Professors Bundy, Francisco Cauz, Guy Filosof, and Jonathan Weiss; Associate Professors Hubert Kueter, Charles Ferguson<sup>1</sup>, Priscilla Doel, James McIntyre<sup>1</sup>, Arthur Greenspan<sup>2</sup>, Jane Moss, Peter Nutting, and Jorge Olivares<sup>1</sup>; Visiting Associate Professor Sheila McCarthy; Assistant Professors Anthony Anemone<sup>1</sup>, Tamae Prindle, Suellen Diaconoff<sup>3</sup>, Javier Gonzalez-Alonso<sup>4</sup>, and David Keenan<sup>1</sup>; Visiting Assistant Professor Sylvie Witkin; Instructors Barbara Nelson<sup>5</sup> and Dace*

Weiss<sup>5</sup>; Visiting Instructors Margrit Lichterfeld, Ann Mabbott<sup>5</sup>, Elizabeth Bowen, David Mills<sup>5</sup>, Monique Fecteau<sup>6</sup>, Marlies Black<sup>7</sup>, Valentina Hernandez<sup>8</sup>, David Mayberry, Matthew Bailey, Tetsuo Kinoshita, and Javier Coca Senade

The programs in modern foreign languages are designed to bring students into close contact with the products of imagination and inquiry of other cultures; at the same time, the study of foreign languages and literatures heightens one's awareness of one's own culture. Students have the opportunity to study in a wide variety of areas, some interdisciplinary, to participate in one of Colby's language semester programs (Mexico, France, Germany), and to spend their junior year abroad either at Colby's own programs in Caen or Salamanca or at approved programs in other countries. Like most liberal arts majors, the study of foreign languages should be considered as a background leading to a wide variety of careers. Some students go on to pursue advanced degrees in languages and literatures. When languages are combined with course work in history, government, economics, or the natural sciences, career possibilities in law, medicine, business, and government are enhanced. Prospects for teaching languages are somewhat limited, but needs do exist in certain areas, and the department offers both courses and practical training in this field.

*Note:* Majors are offered in French, German, and Spanish; the department also offers instruction in Chinese, Italian, Japanese, Portuguese, and Russian. Interdisciplinary majors are offered in Russian/Soviet studies and in East Asian studies.

*Teacher Certification:* Students desiring certification for teaching French, German, or Spanish must take Modern Foreign Languages 411, and may in some cases be required to take other specified courses.

<sup>1</sup>On leave full year.

<sup>2</sup>Resident director, Colby in Caen, full year.

<sup>3</sup>On leave first semester.

<sup>4</sup>Resident director, Colby in Cuernavaca, first semester.

<sup>5</sup>Part-time.

<sup>6</sup>Resident director, Colby in Dijon, first semester.

<sup>7</sup>Resident director, Colby in Lübeck, second semester.

<sup>8</sup>Resident director, Colby in Salamanca, full year.

**411d2 Teaching of Modern Foreign Languages** Problems and methods of teaching modern foreign languages. Readings, discussions, practice work, and criticism. Counts as three hours in education toward the Maine secondary-school teaching certificate. Conducted in English. Nongraded. *Prerequisite:* Two 200-level modern foreign literature courses. *Three credit hours.* MR. BUNDY

**491, 492 Independent Topics in Modern Foreign Languages** Individual projects in language or literature in which the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the department chairman. *Two to four credit hours.* FACULTY

## Molecular Biology

ADVISERS: Professors Arthur Champlin (Biology) and Wayne Smith (Chemistry)  
Colby College does not offer a major in molecular biology, however, students

interested in this field may pursue study through the biology major or the biochemistry concentration within the chemistry major. For either approach it would be advisable to enroll in both Biology 121, 122 and Chemistry 141, 142 during the freshman year to permit maximum flexibility in subsequent years. Early consultation with the advisers is strongly encouraged.

## Music

*Acting Chairman, ASSOCIATE PROFESSOR DOROTHY REUMAN*

*Professor Paul Machlin<sup>1</sup>; Associate Professor Reuman<sup>2</sup>; Assistant Professors Jonathan Hallstrom, and Rebecca Gerber<sup>1</sup>; Visiting Assistant Professors Blake Wilson and John Rice; Visiting Instructor John Hoffacker*

The Colby music department includes music historians, composers, and theorists, all of whom are performing musicians. The curriculum for majors and non-majors is designed to provide the broadest possible range of studies in music at all levels, while also allowing students the opportunity to develop their creative and expressive gifts as performers. The department's conviction that music is an art which bears an intimate relationship to the cultural and social matrix from which it springs is reflected in the wide diversity of course offerings.

Facilities include a 394-seat recital hall, two concert grand pianos and several smaller grands, an orchestra and band rehearsal room, an electronic music center with a variety of sound-producing and recording equipment, teaching studios, and practice rooms. Performances are scheduled in the recital hall and in Lorimer Chapel. The fine arts library contains a listening center, tapes and recordings, and resource materials for curricular and recreational needs.

### Requirements for the Major in Music

Music 181, 182, 241, 242, 281, 282, 341, 342, 493 or 494; one elective in music at the 200 level or higher; at least four semesters of graded credit in applied music (individual study or ensemble). The department requires majors to demonstrate, by means of a brief examination, a specified level of proficiency at the keyboard by the end of the sophomore year. The specific elements of the exam are available from the department.

The point scale for retention of the major applies to all courses in music history and theory. No requirement for the major may be taken pass/fail.

Attention is called to the interdisciplinary majors in American studies and performing arts and to the concentration in women's studies.

<sup>1</sup>On leave full year.

<sup>2</sup>Part-time.

**091j Applied Music** Individual instruction for students who wish to devote the month of January to the study of voice or an instrument. Two half-hour lessons weekly, supplemented by individual daily practice. Similar arrangements can be made for students studying off campus. For additional information concerning fees and related matters, see the applied music statement following Music 494. Interested students should consult the department before registering. *Prerequisite:* Permission of the department. *Noncredit.* STAFF

**111 Introduction to Music** The development of perceptive listening and an introduction to Western art-music traditions through the study of selected works.

No previous knowledge of music assumed. Cannot be counted toward the music major. *Four credit hours.* INSTRUCTOR

**115j History of Chamber Music** A history of music for string quartet offered by the members of the Portland String Quartet in residence at Colby College. Representative works by composers, i.e., Haydn, Mozart, Beethoven, and Schubert, will be studied in their cultural and historical context. *Two credit hours.* FACULTY

**133d2 American Music** A survey of American music from the time of the Pilgrims to the present, examining the cultivated traditions of art song, symphony, chamber music, and opera; also the vernacular heritage of Gospel hymnody, minstrelsy, ragtime, musical theater, blues, jazz, C & W, R & B, bop, rock, fusion, and more. Forms, techniques, media, and aesthetic elements as fundamentals of peculiarly American styles; society and commerce as shapers of those styles. *Four credit hours.* INSTRUCTOR

**[137j] History of Instruments** The development of Western instruments beginning with the aulos and lyre of antiquity and culminating with synthesizers. The influence of specific composers on the development of new instruments or techniques. *Three credit hours.*

**[151] Music in the Liberal Arts** An exploration of relationships between the art of music and other areas within the liberal arts. Such areas might include physics, mathematics, physiology and psychology, philosophy and aesthetics, the visual arts, anthropology and sociology, language and literature, historical or area studies, theater and dance, and religion. *Three credit hours.*

**153d Introduction to Music Theory** An introductory survey of the main aspects of music theory and practice, including rhythm, intervals, scales and keys, melody, harmony, and form. Some music reading, creative writing, and analytical studies in various styles and periods are included. Primarily for students not intending to major in music. May not be taken for credit in addition to Music 181. *Four credit hours.* MR. HALLSTROM AND MR. HOFFACKER

**[174] European Popular Song Before 1800** The history of European popular song before 1800, including Medieval and Renaissance popular songs, which often arose from everyday events: songs from troubadour and trouvere repertoires, Master- and Minnesinger songs, and English popular songs and carols. *Four credit hours.*

**181, 182 Music Theory I, II** Within a sequence of courses designed to present analytical skills for understanding the elements and structure of tonal music, Music Theory I covers skills pertaining to notation, intervals, scales, tonality, and melodic construction. Includes ear training and sight singing. Music Theory II is a continuation of these skills and includes an introduction to four-part writing. Laboratory required in each course: a one-hour ear-training session per week. Primarily for music majors and others with prior training in music. *Prerequisite:* Permission of the instructor. *Four credit hours.* MR. WILSON

**191d Applied Music: Individual Study** Instruction in voice and instruments for qualified students. Regular offerings include violin, viola, violoncello, piano,

voice, flute, guitar (classical, American traditional, and jazz), organ and harpsichord, and selected brass and woodwind instruments. The student's performance in the course will be evaluated by faculty jury at the end of the semester. For additional information concerning fees, scheduling, and related matters, refer to the applied music statement following Music 494. May be repeated for additional credit. *Prerequisite:* Music 153 or 181 for graded credit (may be taken concurrently) and permission of the department. *One or two credit hours.* STAFF

**193d Applied Music: Ensemble** Credit for participation in musical ensembles sponsored by the music department. In addition to the Colby Community Symphony Orchestra, the Colby Chorale, the Collegium Musicum (early music ensemble), the Band, Jazz Band, and Chapel Choir, the department will undertake to form small ensemble groups as the need arises. Interested students should consult the department for additional information before registering. May be repeated for additional credit. *Prerequisite:* Music 153 or 181 for graded credit (may be taken concurrently) and permission of the department. *One credit hour.* STAFF

**219j Fifty Years of American Musical Theater** The book, music, and lyrics of ten shows from 1910 (*Naughty Marietta*) to 1960 (*West Side Story*) form the basis of a seminar exploring the distinctions among revue, musical comedy, operetta, and opera; the relationship between music and lyrics, song and play, and the life of a song outside a show; musical theater as satire, agit-prop, pastoral, and romantic comedy. Mass-marketing of sheet music, scores, librettos, and "original cast" recordings; what is uniquely "American"; readings of plays, reviews, theater history picture-books, "show-biz" biographies, essays; group singing. *Prerequisite:* A course in music, American studies, or performing arts. *Three credit hours.* INSTRUCTOR

**[231] Jazz** Jazz between 1900 and 1950: the stylistic development of various subgenres (New Orleans jazz, the blues, stride piano music), analyses of the music of performers and composers (Louis Armstrong, Bessie Smith, Duke Ellington, Charlie Parker), and a study of the roots of rock and roll in urban black popular music. The music itself, as opposed to the sociology of jazz, will be emphasized. *Prerequisite:* Music 111 or 153 or 181. *Three credit hours.*

**235d Studies in Chamber Music Repertoire** An examination of significant works from the literature for string trios, quartets, and quintets of the eighteenth through the twentieth centuries. In addition to placing the works in their historical context and analyzing them, participants in the course will prepare works for performance to be coached by the Portland String Quartet. May be repeated for additional credit. *Prerequisite:* Permission of the instructor. *One to four credit hours.* MRS. REUMAN

**241 Topics in Music History: Composers Before 1750** The lives and representative works of selected composers before 1750. (Fall 1988: Perotin, Guillaume de Machaut, Josquin Des Prez; Fall 1989: Monteverdi, Bach, Handel.) *Prerequisite:* Music 182. *Four credit hours.* MR. WILSON

**242 Topics in Music History: Music Literature Before 1750** Representative major genres of music literature in the Western European tradition before 1750. (Spring

1989: Counterpoint and fugue, vocal music—madrigal, cantata, opera; Spring 1990: Chant, motet, mass, chanson.) *Prerequisite:* Music 241. *Four credit hours.* MR. WILSON

[278] **Opera as Theater** A historical study of principles of opera production, with laboratory experience in staging scenes from several periods. *Prerequisite:* Permission of the instructor. *Four credit hours.*

281, 282 **Music Theory III, IV** Music 281 includes further study of harmony and an introduction to chromatic harmony. Music 282 covers postromantic harmony and contemporary techniques, analyzing representative works of twentieth-century composers. Primarily for music majors. *Prerequisite:* Music 182. *Three credit hours.* MR. HALLSTROM

[334] **Faust in Music** A study of one of the richest literary themes in music, the role of the Faust legend both in various musical genres (song, opera, symphony, and overture) and through the works of several composers (Schubert, Berlioz, Wagner, Liszt, Gounod, Mahler, and others). Enrollment limited. *Prerequisite:* Music 282 or permission of the instructor. *Three credit hours.*

341 **Topics in Music History: Composers After 1750** The lives and representative works of selected composers after 1750. (Fall 1988: Wagner, Debussy, Stravinsky, Cage and his legacy; Fall 1989: Haydn, Mozart, Beethoven, Schubert.) *Prerequisite:* Music 282. *Four credit hours.* INSTRUCTOR

342 **Topics in Music History: Music Literature After 1750** Representative major genres of music literature in the Western European tradition after 1750. (Spring 1989: Chamber Music, Symphony, eighteenth and nineteenth centuries; Spring 1990: Vocal Music—opera, choral literature, song—and Piano Literature of the nineteenth and twentieth centuries.) *Prerequisite:* Music 341. *Four credit hours.* INSTRUCTOR

[371] **Composition** Utilization of skills acquired through the study of theory, harmony, and musical analysis in the creation of small and large forms. Individual assignments will be made on the basis of each student's ability, training, and experience. Enrollment limited. *Prerequisite:* Music 182 or permission of the instructor. *Three credit hours.*

[373] **Counterpoint and Fugue** The principles of sixteenth- and eighteenth-century polyphony as exemplified in the works of Palestrina and J. S. Bach. Composition of motets, canons, inventions, and fugues; analyses of representative works of both composers. Enrollment limited. *Prerequisite:* Music 281 or permission of the instructor. *Three credit hours.*

374 **Conducting and Score Reading** Basic conducting techniques and their application to stylistic interpretation, designed to develop the student's ability to read a full instrumental or choral score with fluency and insight. In addition to practice in clef reading and transposition, analysis of scores for a variety of ensembles from different eras in music history will be stressed; elements of the analysis will include extraction of the main melodic and harmonic elements from the score for keyboard rendition. Enrollment limited. *Prerequisite:* Music 281 or permission of the instructor. *Three credit hours.* MR. HOFFACKER



**491, 492 Independent Study** Individual topics in areas where the student has demonstrated the interest and competence necessary for independent work. Primarily for senior music majors. *Prerequisite:* Permission of the department. *One to four credit hours.* FACULTY

**[493, 494] Seminar in Music** Topics will change each semester; a complete description will be available before registration. Primarily for senior music majors. *Prerequisite:* Music 282 and permission of the instructor. *Three or four credit hours.*

**Applied Music** Private lessons in voice and a variety of instruments are available, with or without academic credit (see Music 191d). Fees for lessons, billed through the College business office, depend upon the number of credits elected; consult the music department for specific charges. Extracurricular instruction in applied music is also available in January, and may satisfy a January requirement; no academic credit for applied music may be earned in January. Students electing Music 091j or 191d, or taking extracurricular instruction, must consult the applied music coordinator (Mrs. Helen Staples); however, individual lessons are scheduled in consultation with the appropriate applied music associate. *Note:* By electing any applied music, the student incurs a responsibility for the appropriate fee.

Music majors, beginning in the first semester of their sophomore year, are eligible for six semesters of subsidized instruction in applied music (Music 191d for two credits) in the instrument of their choice. Majors are also eligible for an additional four semesters of subsidized instruction; however, for those students who require instruction in piano in order to fulfill the piano proficiency requirement, two and only two of these additional semesters of instruction must be used towards completion of that requirement. Majors who study with approved instructors who are not members of the music department's applied music staff are eligible for the same subsidy; consult the applied music coordinator for specific criteria.

## Performing Arts

*Chairman,* PROFESSOR HOWARD KOONCE

*Professors Patrick Brancaccio<sup>1</sup> and Koonce; Adjunct Associate Professors Christine Wentzel and Richard Sewell; Adjunct Assistant Professor James Thurston; Instructor Joylynn Wing; Visiting Instructor David Mills*

*ADVISORY COMMITTEE: Professors Mark Benbow (English), Brancaccio (English and Performing Arts), Koonce (English and Performing Arts), Paul Machlin (Music), Wentzel (Performing Arts), Sewell (Performing Arts), David Simon (Art), Thurston (Performing Arts), and Wing (Performing Arts and English)*

The program in the performing arts enlarges existing patterns of academic concentration through credited work in theater, theatrical music, and dance. The program is founded on two premises: first, that performance is essential to a full understanding of the art form; second, that all the arts share significant modes of thought and expression, and that a knowledge of one art form will contribute to an understanding of all the arts. In addition to traditional lecture/discussion courses, the program includes frequent opportunities for practical experience in the theater.

The major in performing arts is a liberal arts, not a pre-professional, major. It is,

however, a major which will adequately prepare particularly interested and talented students for graduate study and further involvement with performing groups. It is a structured major which ensures that all students have experience and training in technical theater as well as appearing on stage. It is an interdisciplinary major which relates the study of theater and dance to the study of art, music, and literature. As part of its program, the performing arts major not only recognizes but encourages performing experience and study with approved organizations outside the College through exchange programs with other colleges and universities, internships, and foreign study.

#### Requirements for the Major in Performing Arts

*I:* Performing Arts 121, 171, 314, and one of the following: 272, 372, 253, 353, or 453.

*II:* Three courses in art, literature, and music, no more than two of which may be at the 100 level, selected from the following: Art 111, 112, 131, 221, or 232; Classics 232 or English 373 or 374; Music 111, 153, or 181.

Three additional courses chosen from *one* of the following categories: In art: 111, 112, 131, 221, 222, 232, 275, or any period of art history; in literature: Classics 232 Greek Tragedy; English 278 Italian Fiction and Film, English 333 Topics in Renaissance Drama, English 334 Restoration Literature, English 373, 374 The Development of Dramatic Art I, II, English 375 Studies in Pre-Modern Drama, 376 Studies in Modern Drama, English 383, 384 Studies in Shakespeare, French 335 Seventeenth-Century French Theater, French 376 Modern French Drama; German 151 Masterpieces of German Literature; Greek 352 Sophocles, Greek 354 Euripides, Greek 493 Aeschylus; Latin 232 Readings in Terence, Latin 251 Roman Drama, Latin 371 Terence; or in music: 111, 133, 153, 181, 182, 231, 278, or any period course in music history.

*III:* Fifteen credit hours in performing arts as follows: three credit hours in design (Performing Arts 231, 232, or 233); three credit hours in directing or choreography (Performing Arts 212, 311, or 341); and an interdisciplinary senior seminar (Performing Arts 494 or an equivalent course in a cooperating department). Six additional credit hours in performing arts, exclusive of Performing Arts 173.

*IV:* Significant participation in performance (design, direction, acting, dance) in three semesters. Requirement can be met with Performing Arts 292, 293, or Performing Arts 254, 354, 454, or Performing Arts 491, 492.

The point scale for retention of the major applies to all courses offered toward the major. No requirement for the major may be taken pass/fail.

<sup>1</sup>Resident director, Colby in London program.

#### [031j] London Theater and Dance. *Noncredit.*

**093j Applied Theater** Significant participation in a production during January. Enrollment limited to members of the cast and crew. *Prerequisite:* Permission of the performing arts committee. *Noncredit.* FACULTY

**121, 122 Theater Production** An introduction to the art of theater production, showing the interaction of the director, designers, actors, and technicians from the director's concept to the realized production on stage. A general survey of the evolution of theaters and theater productions through history, showing the effects of social, political, economic, religious, and scientific changes on the plays being written and the styles and methods of designing and producing those plays.

Laboratory: an introduction to the current methods and materials used in fabricating scenery, properties, lighting, and sound. Students are required to work on one performing arts production during the semester. *Four credit hours.* MR. THURSTON

[131] **London Theater and Dance** *One to three credit hours.*

[153] **Drama in Performance I** Production of a play that will be studied both in its cultural context and as a representative of its kind, emphasizing the interplay between an intellectual command of a text and the problem of presenting a unified idea in actual production. Enrollment limited. See also Performing Arts 254, 354, and 454. *Prerequisite:* All registrants must be members of the cast or crew. *Three credit hours.*

**171d Introduction to Performance** Stage movement and development of characters of selected plays for presentation on stage. Scripts will be selected to offer a variety of roles and for the imaginative scope and challenge they afford. Emphasis will be on dynamics and variety in developing a persona in physical movement, in silence, and in dialogue. Two performances open to an audience will be staged, one at midsemester and one at the final class. *Three credit hours.* FACULTY

[173] **The Audience Experience** An introduction to the performing arts aimed at developing an informed, active audience through an acquaintance with theater and dance, and with the physical and artistic processes that create them. Emphasis on providing a critical and theoretical framework for approaching performance. Requires attendance at all Powder and Wig and performing arts productions, as well as attendance at one production elsewhere. *Three credit hours.*

[212] **Fundamentals of Stage Managing and Directing** The basic techniques of staging dramatic scripts. *Three credit hours.*

[218] **Play Writing** Basic problems in writing for the stage. Students will convert brief narratives (from Kafka, Boccaccio, Borges, etc.) into dramatic form to examine challenges of compression, stage (as different from narrative) impact, delineation and development of character, and then write a dramatization or an original play or sequence of scenes. Limited enrollment. *Prerequisite:* One course in the literature of the performing arts, any performing arts course, or permission of the instructor. *Three credit hours.*

**231d2 Scene Design** The theory and art of scene design, focusing on analysis of the playwright's text to discover and solve the aesthetic and functional problems of achieving a viable design. Projects include design drawings based on assigned plays and assignments include sketching, watercolor, and computer graphics. *Prerequisite:* Performing Arts 122 or permission of the instructor. *Three credit hours.* MR. THURSTON

[232] **Stage Lighting** Theory and principles of stage lighting, with special emphasis on translating design ideas to the physical stage. Projects will include sketches and drafted light plots based on assigned plays, operas, musicals, and dance (ballet and modern). Attendance at performing arts and Powder and Wig

productions required. *Prerequisite:* Performing Arts 122 or permission of the instructor. *Three credit hours.*

**[233] Stage Costume Design** Line, form, movement, color, characterization, and rendering in stage costume design, in conjunction with appropriate scenographic theory. Whenever practicable, students will be involved in practical theatrical costuming. *Three credit hours.*

**[235] Stage Make-up** The study of stage make-up as a method of enhancing character, illustrating age, defining personalities, and showing social, economic, and psychological attributes of the characters of assigned plays. Research in certain historical periods to determine styles of dress, make-up, hair style, and body adornment for a variety of social/economic levels. *Three or four credit hours.*

**241d2, 242 Dance and Movement, Improvisation, and Theory** 241: description and analysis of movement and its relation to basic elements of dance: time, space, weight, and flow; improvisation; introduction to elementary notation. 242: pre-classic and traditional modern dance forms. *Prerequisite:* Participation in the Colby Dancers or permission of the instructor. *Three credit hours.* MS. WENTZEL

**252 Introduction to the Art of Dance** A survey of dance, the differences among its many forms, its relation to or function within a particular culture. The significant developments of dance as an art form in Western civilization, looking at basic theory, composition, and movement experience. Readings, films, videos, and attendance at live performances. No dance experience necessary. Enrollment limited. *Three credit hours.* MS. WENTZEL

**253d2 Dance Repertory I** Advanced applied dance theory. Study and performance of faculty works, commissioned choreography, or period pieces reconstructed from labanotation. Topics change each semester. Enrollment limited. See also Performing Arts 353 and 453. *Prerequisite:* Performing Arts 341, 342 (may be taken concurrently), or permission of the instructor. *Three credit hours.* MS. WENTZEL

**254 Drama in Performance II** See description for Performing Arts 153. *Prerequisite:* All registrants must be members of the cast or crew. *Three or four credit hours.* INSTRUCTOR

**[272] Acting II** Theory and technique of stage performance for those with experience in performance. Scenes and short plays. Admission to course based on the presentation of one three-minute scene, prepared and memorized. Auditions will be held the morning of registration. *Prerequisite:* Performing Arts 171 or permission of the instructor. *Three credit hours.*

**274 Voice and Public Speaking** The study and practice of composing and delivering formal speeches, including development of vocal techniques for clear and effective presentation. Enrollment limited. *Prerequisite:* Permission of the instructor and concurrent enrollment in an approved course from any academic discipline. *Two to four credit hours.* MR. MILLS

**292d Applied Dance** Optional credit for participation in Colby Dancers. May be repeated for additional credit. Enrollment limited. Nongraded. *Prerequisite:*

Performing Arts 341, 342 (may be taken concurrently), and permission of the performing arts committee. *One credit hour.* INSTRUCTOR

**293d Applied Theater** Optional credit for significant participation in productions, applied workshops, or performances staged in conjunction with classes in directing. May be repeated for additional credit. Enrollment limited. Nongraded. *Prerequisite:* For actors, Performing Arts 272 or 372 (may be taken concurrently); for technicians, Performing Arts 231 or 232 (may be taken concurrently); all students must obtain permission of the performing arts committee. *One credit hour.* FACULTY

**[311] Topics in Stage Directing** The special challenges and demands of directing particular kinds of plays and/or plays from particular periods and cultures. Enrollment limited. *Prerequisite:* Performing Arts 173, 212, or participation in at least one faculty-directed production at Colby. *Three credit hours.*

**314d1 Theater History** A historical survey of the theory and practice of staging from the Greek through the modern period, focusing on problems arising from the realization of dramatic texts in conjunction with historical records. *Three credit hours.* MS. WING

**341d2, 342 Advanced Dance Theory and Composition** Formal compositional fundamentals of dance and their application to group choreography; the relation of dance to other arts disciplines. *Prerequisite:* Performing Arts 241, 242 or permission of the instructor. *Three credit hours.* MS. WENTZEL

**353d2 Dance Repertory II** See description for Performing Arts 253. *Prerequisite:* Performing Arts 341, 342 (may be taken concurrently), participation in Colby Dancers, or permission of the instructor. *Three credit hours.* MS. WENTZEL

**354j Drama in Performance III** See description for Performing Arts 153. *Prerequisite:* All registrants must be members of the cast or crew. *Three credit hours.* MR. SEWELL

**372d Topics in Acting** The special challenges and demands of acting in particular kinds of plays and/or plays from particular periods or cultures. Brief repertoires may be presented, but the emphasis will be on process rather than production. Enrollment limited. *Prerequisite:* Performing Arts 171 and permission of the instructor. *Three credit hours.* MR. SEWELL AND MS. WING

**453d2 Dance Repertory III** See description for Performing Arts 253. *Prerequisite:* Performing Arts 341, 342 (may be taken concurrently), participation in Colby Dancers, or permission of the instructor. *Three credit hours.* MS. WENTZEL

**454 Drama in Performance IV** See description for Performing Arts 153. *Prerequisite:* All registrants must be members of the cast or crew. *Three credit hours.* FACULTY

**483, 484 Senior Seminar** A culminating seminar for performing arts majors. Specific subject matter will be selected for each class to enable designers, directors, dancers, and actors to collaborate in translating the intellectual understanding of

the subject into theatrical performance. Enrollment limited. Formerly listed as Performing Arts 493, 494. A temporary mark of Cr in 483 will be changed to the grade subsequently submitted for 484. *Prerequisite:* Senior standing as a major in performing arts. *Two credit hours.* FACULTY

**491, 492 Independent Study** Individual projects in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *One to four credit hours.* FACULTY

## Philosophy

*In the department of philosophy and religion.*

*Chairman,* PROFESSOR YEAGER HUDSON

*Professors Robert Reuman, Hudson, and Robert McArthur*<sup>1</sup>; *Visiting Associate Professor James Anderson; Assistant Professor Daniel Cohen*<sup>2</sup>; *Instructor David Calhoun; Fulbright Scholar-in-Residence P. D. Premasiri*<sup>1</sup>

"Philosophy," as William James put it, "is an attempt to think without arbitrariness or dogmatism about the fundamental issues." One of the core disciplines of the liberal arts, philosophy provides a unique perspective on human and social problems. As a critical and an integrative discipline, it collects the questions that arise from the basic principles of all areas of knowledge. Colby's program features a sequence of courses dealing with both Western and Eastern intellectual and philosophical history, as well as courses treating the major philosophical issues.

### **Requirements for the Major in Philosophy**

Philosophy 152, 211, 331, 332, 353, either 491 or 492, and 12 additional hours in philosophy, at least eight of which are above the 100-level.

### **Requirements for the Major in Philosophy-Religion**

Religion 211, 212, 233, 234, 316; Philosophy 152, 211, 331, 332, 372, 373; either 491 or 492.

For each of the above majors, at least one independent study project of at least three credit hours (philosophy or religion) must be taken in January or one of the semesters of the junior or senior year.

The point scale for retention of each of the above majors applies to all courses that count toward the major.

### **Requirements for the Major in Philosophy-Mathematics**

In philosophy: 152 and either 111 or 211; 258, 331, 332, and 353.

In mathematics: at least 18 credit hours, including 124 or 222; 253, 361.

Physics 121, 122 is recommended for the major.

At least one independent study project in mathematics or philosophy, of at least three credit hours, must be taken in January or one of the semesters.

Students majoring in philosophy, philosophy-religion, or philosophy-mathematics, who have a grade point average of 3.0 or higher in the major, may apply during their junior year for admission to the honors program. On successful completion of the work for the honors program, including a thesis, their graduation from the College will be noted as being "With Honors in Philosophy," "With Honors in Philosophy-Religion," or "With Honors in Philosophy-Mathematics."

Attention is called to the interdepartmental major in classics-philosophy (see

list of requirements under "Classics") and to the concentration in quantitative analysis.

<sup>1</sup>Part-time.

<sup>2</sup>Resident director, Colby in Cork Program.

**[111] Central Philosophical Issues: Self and Society** An introduction to philosophy by a consideration of two of its central branches: social and political philosophy and ethics. Some of the issues addressed are: the nature of political power, individual rights, the good society, the nature of morality, and whether there are moral absolutes. These issues are approached through readings from several of the great philosophers of the West, such as Plato, Aristotle, Locke, Rousseau, and Mill. *Four credit hours.*

**114d Central Philosophical Issues: Nature and God** An introduction to philosophy by a consideration of three of its central issues: knowledge, reality, and God. Some questions addressed are: how can we obtain knowledge, can we achieve certainty, how can we distinguish between appearance and reality, is it reasonable to believe in God, and how can evil be explained? These issues are approached through readings from several of the great philosophers of the West, such as Descartes, Berkeley, Hume, Aquinas, and Tillich. *Four credit hours.* MR. CALHOUN

**116d1 Central Philosophical Issues: The Good Life** An introduction to philosophy through an exploration of the themes of the meaning of life and the good life. Authors such as Plato, Aristotle, Thoreau, Tolstoy, Kant, and Mill, as well as a number of contemporary philosophers, will be studied. *Four credit hours.* MR. ANDERSON

**[118] Central Philosophical Issues: Philosophy of Law** An introduction to philosophy by a consideration of the interrelations between law, philosophy, and logic. Topics will include the nature and foundation of legal systems, the relation of law to morality, the limits of law, punishment, justice, and legal reasoning. *Four credit hours.*

**[135j] Puzzles and Paradoxes** A probing plunge into philosophical perplexities, such as rational irrationality, dilemmas of decision, riddles of induction, and prior announcement of surprises. *Two credit hours.*

**[137j] Philosophy of Art** The nature of art and the basis of our judgments about art. Concepts of imitation, expression, form, institution, aesthetic attitude, and objective reasons as they relate to the arts. *Two credit hours.*

**152d Logic** The techniques of formal reasoning in a symbolic context, and their application to argumentation in natural language. *Three credit hours.* MR. ANDERSON

**[153] Nonviolence** Readings and discussion will focus on the following areas: theoretical considerations and definitions, the nature and advocates of violence, aggression, civil disobedience, Satyagraha, nonviolence and violence in American race relations, violence in American society, international conflict, and conflict resolution. *Three credit hours.*

**174 Central Philosophical Issues: Philosophical Anthropology: The Philosophy of Human Nature** An introduction to philosophy through a comparative study of theories about the nature and destiny of man. Readings from great philosophers, scientists, and literary figures such as Plato, Rousseau, Skinner, Freud, the Sociobiologists, Sartre, Camus, and Tillich. Also listed as Anthropology 174. Formerly listed as Philosophy 113. *Four credit hours.* MR. HUDSON

**197j Love and Friendship** From the time of the Greeks, love and friendship have played important roles in philosophical investigation of ethics, political theory, and even theory of knowledge. This course will examine several accounts of love and friendship, noting the implications of these views for issues such as the good life, treatment of others, and self love. Readings from Plato, Aristotle, Kierkegaard, Freud, and others. *Three credit hours.* MR. CALHOUN

**211 Moral Philosophy** Consideration of various philosophical theories about the bases of judgment on questions of good and bad, right and wrong, with lesser attention to the application of ethical principles to problem cases. *Three or four credit hours.* MR. REUMAN

**[212] Greek Ethics** Ancient Greek philosophers, dramatists, and historians were concerned with questions about the justification of moral conduct and character and the possibility of objective or absolute foundations for morality. The course will address these questions in the thought of such authors as Homer, Hesiod, Sophocles, Euripides, various Sophists, Plato, Aristotle, Epicurus, and some later Hellenistic skeptics. *Three credit hours.*

**219 Philosophy, Literature, and Film** Philosophical themes are often explored in artistic works of literature. This course will explore issues of individuality and one's relation to society in key works of literature and film. Readings and films of works by Camus, Sartre, Sophocles, Walker Percy, and others. *Three credit hours.* MR. CALHOUN

**[234] History of Science** A survey of the growth of scientific theories from the Aristotelian-Ptolemaic world view through Newton's mechanical philosophy and Darwin's theory of evolution. *Three credit hours.*

**[236] Social Philosophy** Readings from Plato, Locke, Rousseau, Marx, and others; their relevance to contemporary problems. *Three or four credit hours.*

**252 American Philosophy** American philosophical thought from the colonial period to the twentieth century. The course will deal with a broad spectrum of American thinkers including the contributions of black and women philosophers as well as the more traditional philosophical figures. *Three credit hours.* MR. ANDERSON

**[255] Indian Thought** Types of Indian philosophy of the ancient period. *Three credit hours.*

**[256] Indian Thought** The development of Indian philosophy and intellectual history from the beginning of the Indian Renaissance in the late eighteenth century to the present. Readings from such thinkers as Gandhi, Tagore, Ramakrishna, Vivekananda, and Radhakrishnan. *Three credit hours.*



**258 Intermediate Logic** The formal semantics of symbolic logic and its extensions, metatheoretic results such as soundness and completeness, the nature and limits of the axiomatic method, and philosophical problems concerning the nature of logical truth. *Prerequisite:* Philosophy 152 or permission of the instructor. *Three credit hours.* MR. MCARTHUR

**[259j] Models of Mind** A survey of the varying conceptions of human nature from the seventeenth century to the present day; the impact of scientific ideas on the way mind and human behavior are understood. Particular attention to twentieth-century behaviorist and cognitivist conceptions of mind and the relevance of recent computer technology to the understanding of language, thought, and consciousness. Readings from Descartes, Darwin, Freud, Watson, Chomsky, and others. Also listed as Psychology 259j. *Prerequisite:* Permission of the instructors. *Three credit hours.*

**[277, 278] Philosophical Perspectives** Interdisciplinary considerations of various topics, involving lecturers from several departments. *Three credit hours.*

**297 The Ethics of Buddhism** A study of Buddhist moral theory including a survey of the major phases of the evolution of moral teachings from the time of the introduction of Buddhism into Sri Lanka to the present. The course includes a practical dimension, i.e., a consideration of the implications of Buddhist thought for such contemporary social problems as family planning, euthanasia, organ transplants, abortion, and the use of violence as a means of social and political reform. *Three credit hours.* MR. PREMASIRI

**[297] Theory of Knowledge** The nature and limits of human knowledge. Concepts of belief, knowledge, and justification. Problems of perception, induction, and necessary truth. *Three credit hours.*

**298 Fact and Value** An exploration of the distinction between scientific discourse and evaluative discourse including moral, aesthetic, and religious values. Asian and Western perspectives on the philosophical issues related to the alleged gap between facts and values. *Three credit hours.* MR. PREMASIRI

**†[298] Seminar: Applied Ethics** The interrelationship between moral principles and problem cases as a way of clarifying both theoretical concepts and practical policies. Emphasis on the problem cases themselves, including issues such as abortion, euthanasia, civil disobedience, affirmative action, genetic intervention, and famine. *Prerequisite:* Philosophy 211 or permission of the instructor. *Three credit hours.*

**[316] Metaphysics: People, Places, and Things** A study of the most general categories of being as such; particulars and universals, the spatial and the nonspatial, the temporal and the non-temporal, causation and freedom, matter and mind. *Prerequisite:* A course in philosophy or permission of the instructor. *Four credit hours.*

**[317] Philosophy of Science and Mathematics** How are mathematical truths known? What is the status of a scientific theory? Problems concerning inductive logic, observation, laws, theory construction, and scientific explanation will be considered. *Three credit hours.*

**331 History of Ancient Philosophy** Comparative study of the philosophical systems of Plato and Aristotle, with secondary attention to the pre-Socratics, Socrates, Epicurus, the Stoics, and Plotinus. *Four credit hours.* MR. CALHOUN

**332 History of Modern Philosophy** European philosophy from Descartes to the nineteenth century, with special attention to the works of Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant. *Four credit hours.* MR. REUMAN

**333 Philosophy of Education** A study of positions of the major philosophers from Plato to Dewey concerning education. Considers how thought on issues such as the nature of man, our conception of the ideal society, and our vision of the good life affects beliefs and practices concerning education. *Three or four credit hours.* MR. HUDSON

**[338] Philosophy of Language** Philosophy has taken a linguistic turn in the twentieth century: philosophers have come to suppose that reflection on the nature of language and the linguistic representation can help solve long-standing problems in the philosophy of mind and metaphysics. The development of the philosophy of language and its success; authors include Frege, Russell, Strawson, Grice, Kripke, Quine, Davidson, and Schiffer. *Three credit hours.*

**353 Contemporary Analytic Philosophy** The twentieth-century analytic tradition in philosophy. A study of Wittgenstein, the Vienna Circle, Quine, and several more recent figures with an emphasis on metaphilosophy: What is philosophy and how should it be done? *Prerequisite:* Philosophy 332 or permission of the instructor. *Four credit hours.* MR. ANDERSON

**359 Nineteenth-Century Philosophy** Post-Kantian thinkers such as Hegel, Marx, Kierkegaard, Schopenhauer, Nietzsche, and Bergson. Special attention to the revolt against reason, evolution, and alienation. *Prerequisite:* Philosophy 332 or permission of the instructor. *Four credit hours.* MR. REUMAN

**372 Philosophy of Religion** Some of the principal philosophical problems concerning the nature and justification of religious belief and experience, problems such as the nature of God, arguments for the existence of God, the problem of evil, mysticism, and the relation of faith and reason. *Prerequisite:* One course in philosophy or religion, or permission of the instructor. *Four credit hours.* MR. HUDSON

**†[373] History of Medieval Philosophy** History of philosophy from Augustine to Ockham. The principal issue studied is the problem of the reconciliation of faith and reason in the work of the scholastics. *Prerequisite:* Philosophy 331. *Three or four credit hours.*

**[374] Existentialism and Phenomenology** A survey of the principal thinkers of existential philosophy, with minor attention to phenomenology. Readings from such philosophers as Kierkegaard, Nietzsche, Jaspers, Heidegger, Sartre, Buber, and Husserl. Philosophy 359 is a desirable background but is not required. *Prerequisite:* One course in philosophy or permission of the instructor. *Four credit hours.*

**[391, 392] Philosophy Seminar** Seminars in selected areas of philosophy. *Three or four credit hours.*

**[398] Philosophy of Mind** Traditional and contemporary theories of mind, including various forms of dualism, materialism, and causal theories. Discussion of the problem of personal identity will provide new perspectives on these theories. The questions of whether machines can think, and whether investigations into artificial intelligence can help us understand our own minds will also be discussed. *Three credit hours.*

**483, 484 Philosophy Honors Program** Majors may apply late in their junior year for admission into the Philosophy Honors Program. These courses require research conducted under the guidance of a faculty member and focused on an approved topic leading to the writing of a thesis. Upon successful completion of the thesis and the major, the student will graduate "With Honors in Philosophy," "With Honors in Philosophy-Religion," or "With Honors in Philosophy-Mathematics." Enrollment limited. *Prerequisite:* Senior standing and a 3.0 grade point average in the major at the end of the junior year. *Three credit hours.* FACULTY

**491, 492 Independent Study** Individual projects in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *One to four credit hours.* FACULTY

## Physical Education

*Chairman, ADJUNCT ASSOCIATE PROFESSOR RICHARD WHITMORE*

*Professor Richard McGee; Adjunct Associate Professors Carl Nelson, Whitmore, Tom Austin, James Wescott, and Deborah Pluck; Adjunct Assistant Professors Gene DeLorenzo, Michel Goulet, Debra Aitken, and Robert Pfeiffer<sup>1</sup>; Adjunct Instructors Robert MacDonald, Scott Laughinghouse, Paula Aboud, Kevin Naughton, and Roy Dow*

The department of physical education and athletics offers required and voluntary physical education classes, intramural sports, intercollegiate athletics (varsity and junior varsity), and informal recreational activities.

Physical Education 1, 2: two semesters of physical education are required of all Colby students for graduation. Waivers are available for members of varsity or junior varsity teams.

A program of instruction in a variety of activities is offered on a coeducational basis. Activities presently in the program are *aquatics:* swimming, life saving, water-safety instructors' course, scuba; *leisure-time sports:* tennis, racquetball, golf, squash, skating, figure skating, cross-country skiing, badminton, riding; *dance:* modern, ballet; *team sports:* volleyball; *other activities:* yoga, conditioning, hiking, aerobics, weight training, nautilus training, archery.

<sup>1</sup>Joint appointment with education department.

**Physical Education Activities** Activity courses may be taken to fulfill the physical education requirement or as electives. Most activities last one season (one-half semester). Exceptions are so noted on transcripts and in materials

available from the physical education department. Registration is made through the physical education department. *Noncredit*.

**[111j] Lifetime Physical Fitness: Exercise Physiology** A study of the adaptations and physiological mechanisms involved in man's response to exercise. Particular attention to the circulatory, respiratory, metabolic, and nervous adjustments that must be made with increased levels of physical activity. Also, the influence of environmental factors, the role of diet, physical fitness, training, age, sex, and body composition; the instruments and procedures used in gathering data on the physiology of exercise. *Two credit hours*.

**112j Women in Sports** The historical, political, and social role of the American woman will be discussed in detail along with problems of special interest that affect today's women athletes. Topics include Title IX, administrative roles, drugs, feminism, fitness, homophobia, eating disorders, and amenorrhea. Enrollment limited. *Prerequisite:* Permission of the instructors. *One credit hour*.  
MS. PLUCK, MS. AITKEN, AND MS. ABOUD

**213j Sport and Society** Sport is a phenomenon in our society that has not been given equal time, in terms of study, with other institutions in our society. Many of the current issues in sport and in athletes' lives have made a major impact on our society. A focus on the relationship between sport and society, group behavior and interaction patterns within sport settings at all levels of involvement, cultural, sociostructural, and situational factors affecting the nature or dynamics of sport and sport experience. *Two credit hours*. MR. MCGEE

## Physics

*In the department of physics and astronomy.*

*Chairman*, ASSOCIATE PROFESSOR MURRAY CAMPBELL

*Professors Roger Metz and John Dudley; Associate Professor Campbell; Assistant Professor Ross Reynolds; Visiting Instructor Ronald Kollgaard*

The department seeks to train students to think analytically in terms of the fundamental principles of physics. Subject matter in introductory courses is selected to illustrate basic laws with wide applicability and to help prepare students to enter professions such as medicine, law, teaching, and business. Advanced course offerings provide excellent background for graduate study in physics, astronomy, engineering, and computer science. Special emphasis is placed upon independent work and cooperative research with the faculty, using the department's machine, electronic, and technical shops, as well as both campus and departmental computers. Space physics, x-ray spectroscopy, and infrared astronomy are areas of current research interest in the department.

The Physics 132, 231, 232 course sequence provides a solid basis for further work in physics as well as useful training for the other physical sciences and mathematics. Physics 121, 122 is a comparable but shorter sequence intended primarily for science students already committed to majors outside the department. Physics 153 provides training in electronics and requires no background in physics. Physics 112 is intended primarily for students whose main interests lie outside science but who wish to have firsthand acquaintance with an important set of physical topics. Both 112 and 153 satisfy the laboratory science requirement.

### Requirements for the Major in Physics

Twenty-nine credit hours in physics including 132, 231 (or 121, 122), 211, 232, 232L, 312, 333. In mathematics: 121, 122, 222 (or 123, 124), and 253. At least one January program is required to be completed in physics. The point scale for retention of the major applies to all courses taken in physics and mathematics. No requirements for the major may be taken pass/fail.

Freshmen planning a major in physics should elect Mathematics 121 (or 123) in the fall and Mathematics 122 (or 124) and Physics 132 in the spring. Physics 153 is open to freshmen interested in electronics. Freshmen seeking advanced standing in either physics or mathematics should consult the department before electing courses. Sophomores can begin the major by electing Physics 121, 122 or, if beginning in the spring term, Physics 132.

Students anticipating graduate work in physics, astronomy, engineering, or a related field should expect to elect a total of 41 credit hours in physics including, beyond required courses, Physics 153 and 332, and at least six additional credit hours in mathematics including Mathematics 311. Students considering careers in pre-college level teaching should consult the education department early.

In the second semester of the junior year, students who will have completed Physics 153, 332, Mathematics 311, and all courses specifically required for the major by the end of the junior year may apply for admission to the honors program. Successful applicants will be expected to complete Physics 431 and 336 or 338 and an additional mathematics course numbered above the 100 level. An experimental or theoretical thesis to be defended in the last semester of the senior year is required. Successful completion of the honors program will result in the degree being awarded "With Honors in Physics." A thesis completed as part of the Seniors Scholars Program may be substituted for the honors thesis. Attention is drawn to this program particularly for students planning graduate work in physics or astronomy.

As an alternative to graduate work in engineering following a physics major at Colby, students seeking a career in engineering should consider the three-two program in engineering in which both a bachelor of arts and a bachelor of science in engineering can be earned upon successful completion of three years at Colby and two further years in engineering at either Case-Western Reserve University or the University of Rochester.

Attention is called to the interdisciplinary concentration in applied mathematics.

**112 Energy and the Environment** Principles and practice of energy generation, transformation and degradation, and the effects of the use of energy in the environment. Emphasis on scientific understanding of current problems in energy, rather than economic or political implications. Lecture and laboratory. May not be taken for credit if student has earned credit for Physics 121 or 141. Enrollment limited. *Four credit hours.* MR. DUDLEY

**121, 122 General Physics** An introductory survey of physics including the laws of motion, energy, gravity, thermodynamics, electricity and magnetism, optics, special relativity and quantum physics. Lecture, laboratory, and discussion. *Prerequisite:* High school or college calculus. *Four credit hours.* INSTRUCTOR

**132 General Physics** Coverage and format similar to Physics 121 but offered in the second semester. Freshmen considering a physics major should elect this course

rather than Physics 121. Lecture, laboratory, and discussion. Formerly listed as Physics 141. *Prerequisite:* Mathematics 121 (or 123). *Four credit hours.* MR. CAMPBELL

**153 Essential Electronics** An introduction to modern electronics emphasizing laboratory work and including theory, problem solving, and circuit design. From simple, direct-current devices to digital integrated circuits, microcomputer instrumentation, and analog signal processing. Enrollment limited. *Four credit hours.* MR. METZ

**171j Data Analysis** An introduction to treatment of physical data: dimensional analysis, approximations, analysis of uncertainty, elementary statistics, least-squares techniques, and methods of computer programming in FORTRAN. *Three credit hours.* MR. DUDLEY

**211 Mechanics** Theory of classical mechanics: Newton's laws, oscillatory motion, noninertial reference systems, classical gravitation, motion of rigid bodies, and Lagrangian mechanics. Lecture and discussion. *Prerequisite:* Physics 121, Mathematics 122 or equivalent. Open to well-prepared freshmen (normally those with advanced placement in physics and mathematics) with permission of the instructor. *Four credit hours.* MR. DUDLEY

**†[231] General Physics** A continuation of Physics 132, covering electricity and magnetism, circuits, optics, special relativity, and quantum physics. Lecture and discussion. Formerly listed as Physics 142. *Prerequisite:* Physics 132 (or 121) and Mathematics 122 (or 124). *Four credit hours.* MR. METZ

**232 Atomic Physics** An intermediate treatment of the quantum physics of atoms, including atomic models, Schrodinger theory, atomic spectra, and electron spin. Emphasis is placed on the experimental evidence for modern atomic theory. *Prerequisite:* Physics 122 or 231 and Mathematics 222 or 124 (may be taken concurrently). *Four credit hours.* MR. METZ

**232L Atomic Physics Laboratory** Experimental work in electron physics and optical spectroscopy. *Corequisite:* Concurrent enrollment in Physics 232. *One credit hour.* MR. METZ

**251d Independent Electronics** An independent, self-paced course in electronics. May be taken as a sequel to Physics 153 for the further study of digital electronics and computer circuits. Enrollment limited *One or two credit hours.* MR. METZ

**291j Research and Seminar in Physics and Astronomy** Individual or small-group work in one of several areas; development of laboratory apparatus, development of astronomical equipment, analysis of infrared astronomical data, or literature review of topics in physics or astronomy. Each student will present a written report and seminar midway through January, and at the conclusion of the work. *Prerequisite:* Permission of the instructor. *Two or three credit hours.* INSTRUCTOR

**297 Seminar in Physics and Astronomy** Presentation and discussion of contemporary or historical topics in physics or astronomy. Participants will be expected to contribute to the discussion of topics and to make one presentation during the semester. Nongraded. *One credit hour.* FACULTY

**[311] Classical Mechanics** Newton's laws, oscillatory motion, noninertial reference systems, classical gravitation, motion of rigid bodies, and Lagrangian and Hamiltonian mechanics. Lecture and discussion. Currently listed as Physics 211. *Prerequisite:* Physics 121 or 132 and Mathematics 222 or permission of the instructor. *Four credit hours.* MR. DUDLEY

**312 Electricity and Magnetism** A theoretical treatment of electrostatics and magnetostatics in vacuum and material media through Maxwell's equations. Lecture and discussion. Formerly listed as Physics 321. *Prerequisite:* Physics 122 (or 142) and Mathematics 222 (or 124) or permission of the instructor. *Four credit hours.* MR. CAMPBELL

**332 Thermodynamics** Concepts of temperature, energy, entropy, heat, and work, and their thermodynamic relations as developed from a microscopic point of view. Single and multicomponent systems are discussed, using both classical and quantum statistics. Lecture and discussion. *Prerequisite:* Physics 211, 232, and Mathematics 222 (or 124) (may be taken concurrently), or permission of the instructor. *Four credit hours.* MR. METZ

**333 Experimental Physics** Experimental work in classical and modern physics: fundamental physical constants, mechanics, radioactivity, diffraction, and atomic and nuclear spectroscopy. Formerly listed as Physics 334. *Prerequisite:* Physics 211, 232. *Three credit hours.* MR. CAMPBELL

**[336] Solid-state Physics** An introduction to solid-state physics, beginning with a study of crystal forms and diffraction of x-rays. Thermal, optical, acoustical, and electrical properties of solids; the energy-band theory of semiconductors as applied to simple solid-state devices; superconductivity. *Prerequisite:* Physics 232, 321, or permission of the instructor. *Four credit hours.*

**338 Particle and Nuclear Physics** Symmetries, fundamental particles and their interactions, and nuclear models and reactions. Lecture and discussion. Formerly listed as Physics 331. *Prerequisite:* Physics 232. *Four credit hours.* MR. DUDLEY

**351d Tutorial in Physics and Astronomy** Individual work for juniors on a subject of joint interest to the student and the instructor, involving close supervision, regular tutorial meetings, and active participation by both student and instructor. Suggested topics are general relativity, nuclear reactors, fluid mechanics, quantum mechanics, and topics in astronomy. *Prerequisite:* Permission of the instructor. *Two to four credit hours.* FACULTY

**[411] Topics in Classical Theoretical Physics** Mathematical methods of theoretical physics with examples from electromagnetic theory, special relativity, and advanced mechanics. Lecture and discussion. Formerly listed as Physics 322. *Prerequisite:* Physics 311 and 312, Mathematics 311. *Four credit hours.* MR. DUDLEY

**431 Quantum Physics** Nonrelativistic quantum mechanics including Schroedinger theory, operator algebra, angular momentum, and applications to simple atomic systems. Students desiring a continuation of this course should elect Physics 451d. Lecture and discussion. Formerly listed as Physics 441. *Prerequisite:* Physics 232 and Mathematics 311 or permission of the instructor. *Four credit hours.* MR. DUDLEY

**451d Tutorial in Physics and Astronomy** Individual work for seniors. Refer to Physics 351d description. *Prerequisite:* Permission of the instructor. *Two to four credit hours.* FACULTY

**491, 492 Independent Study** Individual topics in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *One to five credit hours.* FACULTY

## Portuguese

*In the department of modern foreign languages.*

†[261, 262] **Portuguese as a Second Romance Language** The spoken and written language of Portugal and Brazil, utilizing previous knowledge of a Romance language. Extensive use is made of taped materials. *Prerequisite:* Successful completion of intermediate French, Spanish, or Italian, or indication of equivalent proficiency. *Four credit hours.*

## Psychology

*Chairman,* ASSOCIATE PROFESSOR EDWARD YETERIAN

*Professor Nicholas Rohrman; Associate Professors Dorin Zohner, Diane Kierstead<sup>1</sup>, and Yeterian; Assistant Professors Linda Hoopes and Gregory Kolden*

The psychology department seeks to fulfill three objectives. First, to prepare students for graduate work in psychology and ultimately for professional careers as teachers, researchers, and practitioners. Second, to prepare students majoring in psychology to enter the business or professional community with a solid background in knowledge of human behavior and its determinants. Third, to provide service courses for students majoring in other fields for whom psychological knowledge may be useful. Laboratories are equipped to conduct a fairly wide range of studies in human sensory, perceptual, and memory phenomena and include animal facilities and surgery for physiological and comparative research. The laboratory for social, clinical, and developmental psychology is equipped with closed-circuit video for unobtrusive observation and data are recorded on VCRs in the data center. Auxiliary portable video equipment is available for use in other laboratories and in the field. The department also maintains electronic and wood shops for the construction of unique apparatus. Six small research laboratories are dedicated for use by advanced students. The data center is equipped with microcomputers as well as mainframe access in addition to housing the video monitoring station.

The department stresses the scientific approach to the study of human behavior and requires a fairly extensive set of quantitative and experimental courses for all majors. Students are encouraged to conduct their own research. In the last five years, Colby psychology students have presented numerous papers at professional meetings, and have won the majority of prizes for undergraduate-paper excellence given by the Maine Psychological Association at its annual scientific meeting.



### Requirements for the Major in Psychology

Psychology 111, 214, 215, 479; at least one course from 251, 253, 255; at least one course from 254, 277, 279; at least one course from 233, 236, 273; at least one course from 232, 234, 237; three additional psychology courses. One year of laboratory science is recommended.

Candidates for distinction in the major and honors in psychology must submit a score on the Psychology Advanced Test of the Graduate Record Examination.

The point scale for retention of the major applies to all courses offered toward the major as prescribed above. All requirements for the major must be met in conventionally graded courses.

Attention is also called to the interdisciplinary major in human development and to the interdisciplinary concentration in quantitative analysis.

### Requirements for Honors in Psychology

Students seeking to participate in the honors program must make formal application to the department prior to enrolling in Psychology 393d. In addition to fulfilling the basic requirements for the psychology major, the honors program requires that students take one course in psychology numbered above 300 and complete the honors research sequence (Psychology 393d and 493d). Upon successful completion of these requirements and upon vote of the department, the student will be awarded his or her degree "With Honors in Psychology."

Attention is also called to the Senior Scholars program.

<sup>1</sup>On leave second semester.

**-95j Internship** Augusta Mental Health Institute internship program. Following two weeks of intensive classroom work on campus, students will reside at AMHI and work in various treatment settings. During the two-week field placement, students will have an opportunity to observe therapeutic activities, participate in staff conferences, attend grand rounds, etc. Room and board will be provided by AMHI during the field placement. Enrollment limited. Nongraded. *Prerequisite:* Permission of the instructor. *Three credit hours.* MR. KOLDEN

**111d Introduction to Psychology** An overview of contemporary psychology, introducing concepts and methods current in the field. Participation as a subject in psychological research is required. *Four credit hours.* FACULTY

**214d Research Methods** Discussion of techniques used in conducting behavioral research. Includes literature survey, hypothesis formulation, control techniques, and research design, as well as descriptive and inferential statistics. *Prerequisite:* Psychology 111 or permission of the instructor. *Four credit hours.* MS. KIERSTEAD AND MS. HOOPES

**215d Psychological Research** Each student will conduct a research project planned in Psychology 214, utilizing skills in experimental design, data analysis, and research report preparation acquired in that course. Ordinarily taken in the semester subsequent to Psychology 214. *Two credit hours.* MS. KIERSTEAD AND MS. HOOPES

**[216j] Work and Leisure** An examination of work and its relationship to human nature; the role of leisure and its importance. Can not be counted toward the psychology major. *Prerequisite:* Psychology 111. *Three credit hours.*

**[217j] Sex Differences in Human Behavior** A study of the ways in which female and male behaviors differ. Consideration will be given to sex differences in physiology, perception, cognition, language, development, personality, psychopathology, and social-psychological contexts. Can not be counted toward the psychology major. *Prerequisite:* Psychology 111. *Three credit hours.*

**232 Cognitive Psychology** The human information-processing system: how stimulus information is transformed, stored, retrieved, and used. Lecture and laboratory. *Prerequisite:* Psychology 111. *Four credit hours.* MR. ROHRMAN

**233 Physiological Psychology** The study of neural mechanisms underlying mental processes and behavior, including the ways in which the nervous system subserves sensory coding and perception, movement, motivation, emotion, consciousness, learning, and memory. Includes historical antecedents and integration of animal experimental and human clinical data. Formerly listed as Psychology 272. *Prerequisite:* Psychology 111 or permission of the instructor. *Four credit hours.* MR. YETERIAN

**[234] Conditioning and Instrumental Learning** A comparative examination of Pavlovian, instrumental, and operant theories of learning and their application to animal and human behavior. Includes historical antecedents and current issues. Lecture and laboratory. Formerly listed as Psychology 231. *Prerequisite:* Psychology 111. *Four credit hours.*

**235 Laboratory in Brain and Behavior** A laboratory supplement to Psychology 233. Cannot be counted toward the psychology major. Formerly listed as Psychology 276. *Prerequisite:* Concurrent or prior enrollment in Psychology 233 and permission of the instructor. *One credit hour.* MR. YETERIAN

**236 Comparative Psychology** An examination of animal and human behavior, with emphasis on similarities and differences between species. Includes history of the discipline, behavioral description and categorization, genetic and environmental determinants, ontogeny, physiological mechanisms, evolution, and learning. *Prerequisite:* Psychology 111. *Four credit hours.* MR. YETERIAN

**237 Psychology of Language** Selected topics in psycholinguistics, language and thought, the role of linguistic entities in psychological processes, propaganda and persuasion. Will normally include an independent project. Formerly listed as Psychology 238. *Prerequisite:* Psychology 111. *Four credit hours.* MR. ROHRMAN

**251 Psychology of Personality** Major theoretical interpretations and current research in the psychology of personality, with a focus on psychodynamic, behavioristic, and humanistic approaches. *Prerequisite:* Psychology 111. *Four credit hours.* MR. KOLDEN

**253d2 Social Psychology** Representative topics in contemporary social psychology: affiliation, social perception, attribution, attraction, aggression, attitudes, cognitive dissonance, conformity, compliance, and group dynamics. *Prerequisite:* Psychology 111. *Four credit hours.* MR. KOLDEN

**254 Abnormal Psychology** A study of the etiology, diagnosis, and treatment of mental disorders, with emphasis on clinical syndromes, theoretical conceptualizations, and current research. Students will participate in related field activities. *Prerequisite:* Psychology 251 or 253 or 255. *Four credit hours.* MR. KOLDEN

**255 Child Development** Principles of psychological development from conception through preadolescence, from a biological, sociocultural, and psychodynamic perspective. For related practica courses, see Education 253, 254. *Prerequisite:* Psychology 111. *Four credit hours.* MR. ZOHNER

**256 Adolescent and Adult Development** Principles of psychological development from adolescence through senescence. Emphasis will be placed on the individual's typical attempts to cope with changes in physical structure, social roles, and personal identity. For related practica courses, see Education 353, 354. *Prerequisite:* Psychology 255. *Four credit hours.* MR. ZOHNER

**258d1 Educational Psychology** Psychological principles applied to problems of education. Principles of developmental psychology, educational testing and measurement, child and adolescent problems, and pathology. *Prerequisite:* Psychology 111. *Three credit hours.* MR. ZOHNER

**[259j] Models of Mind** Listed as Philosophy 259j (q.v.). Can not be counted toward the psychology major. *Prerequisite:* Permission of the instructors. *Three credit hours.*

**273 Sensation and Perception** The major human senses (vision, audition, somesthesia, taste, smell) studied as physiological systems and as intermediaries between the physical and perceived environments. *Prerequisite:* Psychology 111 or permission of the instructor. *Four credit hours.* MS. KIERSTEAD

**275d2 Applied Psychology** A survey of non-clinical applications of psychology, including as possibilities such content areas as consumer behavior, advertising, the impact of mass media on behavior, forensic, environmental, and medical psychology. *Prerequisite:* Psychology 111. *Four credit hours.* MR. ROHRMAN

**277 Industrial Psychology** The application of psychological principles to the development and utilization of human resources in organizations. Topics include measuring skills and abilities for employee selection and placement, physical and psychological factors in the design of job, personnel training and development, and the effects of the work environment on performance. *Prerequisite:* Psychology 111. *Four credit hours.* MS. HOOPES

**279d2 Organizational Behavior** An examination of the behavior of individuals, groups and organizations from a psychological perspective. Topics include organizational structure, motivation, group vs. individual decision-making, communication, power and politics, leadership, and current issues such as job stress and corporate social responsibility. *Prerequisite:* Psychology 111. *Four credit hours.* MS. HOOPES

**[352] Psychology of Exceptional Children** The origins and implications of cognitive, sensory, emotional, and physical handicaps for development will be explored and discussed. Models for intervention and/or remediation at each age level and their developmental outcomes will be examined. *Prerequisite:* Psychology 255. *Four credit hours.*

**354d1 Clinical Psychology** An in-depth exploration of selected topics in personality; abnormal and clinical psychology, including psychological measurement, testing, and assessment. *Prerequisite:* Psychology 111, 254. *Four credit hours.* MR. KOLDEN

**371j Advanced Experimental Psychology** Experimental design and the application of inferential statistics. Strongly recommended for those students interested in graduate school. *Prerequisite:* Psychology 214, 215, and permission of the instructor. *Three credit hours.* MR. ZOHNER

**372 Neuroscience Seminar** In-depth examination of current issues in physiological psychology and human neuropsychology. Topics include hemispheric specialization, sex differences in the nervous system, neural substrates of learning and memory, physiological bases of behavior disorders, drugs and behavior, psychosurgery, and brain tissue transplants. Includes integration of animal experimental and human clinical data. Formerly listed as Psychology 375. *Prerequisite:* Psychology 233 or permission of the instructor. *Four credit hours.* MR. YETERIAN

**[374] Human Neuropsychology** The neural bases of abnormal human behavior and cognition, with integration of data from clinical neuropsychology and behavioral neurology. Topics include brain imaging technologies; neuropsychological evaluation; brain dysfunction and mental illness; drugs, neurotransmitters, and behavior; developmental disorders (e.g., autism); dementias and memory disorders (e.g., Alzheimer's disease); degenerative disorders (e.g., Parkinson's disease and multiple sclerosis); seizures; traumatic brain injury; disorders of communication; and emotional-motivational dysfunction. Emphasis is given to the way in which disorders of the nervous system aid in understanding normal psychological processes. Formerly listed as Psychology 377. *Prerequisite:* Psychology 233. *Four credit hours.*

**[376] Seminar in Vision** A detailed examination of the characteristics of the human visual system. *Prerequisite:* Psychology 273 and permission of the instructor. *Four credit hours.*

**393d Honors Research I** Individual and group meetings of students and faculty participating in the psychology honors program. Under faculty supervision, students will prepare a proposal and begin work on an independent research project to be completed in Psychology 493d. Enrollment limited. *Prerequisite:* Standing as a junior or senior major in psychology and permission of the department. *Three credit hours.* FACULTY

**[398] Theoretical Psychology** An examination of systematic thinking in psychology, the nature of scientific theory, and the structure of current psychological theories. *Prerequisite:* Permission of the instructor. *Four credit hours.*

**479 History and Systems of Psychology** The historical background of modern psychology and the development of such systematic viewpoints as behaviorism, Gestalt psychology, and psychoanalysis. *Prerequisite:* Senior standing as a psychology major or permission of the instructor. *Four credit hours.* MR. ROHRMAN

**491, 492 Independent Study** Individual projects in areas in which the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the department. *One to four credit hours.* FACULTY

**493d Honors Research II** Individual and group meetings of students and faculty participating in the psychology honors program. Under faculty supervision, each student will complete the independent research project begun in Psychology 393d, prepare a paper of publishable quality, and make a formal presentation of the work. Enrollment limited. *Prerequisite:* Psychology 393d, standing as a senior major in psychology, and permission of the department. *Three credit hours.* FACULTY

## Public Policy

*Director,* PROFESSOR G. CALVIN MACKENZIE

*ADVISORY COMMITTEE:* Professors Anthony Corrado (*Government*), Mackenzie (*Government*), L. Sandy Maisel (*Government*), James Meehan (*Economics*), Robert Reuman (*Philosophy*), Sonya Rose (*Sociology and Anthropology*), and Thomas Tietenberg (*Economics*)

The public policy program is an interdisciplinary concentration that builds upon foundations of economics and government to enable students to engage in thoughtful and sophisticated analysis of important public policy issues. The public policy concentration, available in the economics, government, and chemistry majors, is designed to develop in Colby students the ability to apply the methodologies and accumulated knowledge of several disciplines to complex public problems through a combination of classroom, independent research, and work experiences.

### Requirements for the Concentration in Public Policy

It is anticipated that all requirements listed below, with the exception of the senior seminar, will be completed before the beginning of the senior year. The requirements for the chemistry public policy concentration are specified in the catalogue under "Chemistry."

(1) **Method courses**, to examine the major approaches to, and techniques for, the study of policy issues. The following courses are required:

*Economics:* 223 Microeconomic Theory.

*Philosophy:* 211 Moral Philosophy.

One course selected from the following:

*Economics:* 393 Econometrics.

*Government:* 219 Introduction to Research Methods for Political Science.

*Mathematics:* 231 Elementary Statistics and Regression Analysis.

(2) **Process courses**, to explore the processes by which public policies are designed, enacted, and implemented. The following courses are required:

*Government:* 317 The Policymaking Process.

At least one course each in economics and government selected from the following:

*Economics:* 312 Topics in Law and Economics; 332 Regulated Industries; 351 Public Finance.

*Government*: 273 The American Congress; 275j The Committee System in the U.S. Congress; 276 The American Presidency; 313, 314 American Constitutional Law I, II; 392 The Administrative Process.

(3) **Practical applications.** During the junior year, each student will complete an internship and, in consultation with program directors, will select a substantive policy area to serve as the focus for the senior research project. The internship may be undertaken during January, the summer, or an academic semester, and will culminate with a short research paper analyzing the issues to which the student was exposed.

(4) **The senior seminar.** Public Policy 493, required during the senior year, provides for independent, multidisciplinary student research. Each student is required to conduct an original analysis of some public policy issue.

**493 Public Policy Seminar** Students will design and conduct an original research project on a local, state, or national public policy issue. Required of economics and government majors with concentration in public policy; open to other government and economics majors on a space-available basis. Also listed as Government 493. *Three credit hours.* MR. MACKENZIE

## Quantitative Analysis/ Applied Mathematics

*Director*, ASSISTANT PROFESSOR AMY BOYD

ADVISORY COMMITTEE: *Professors Boyd (Administrative Science and Mathematics), Homer Hayslett (Mathematics), Randy Nelson (Economics), Leonard Reich (Administrative Science), Dale Skrien (Mathematics), and John Sweney (English)*

Because a significant portion of the world today is technically oriented, and quantitative arguments are being used in many areas of study, all liberally educated students should have at least minimum competency in quantitative reasoning. As a result, a quantitative analysis/applied mathematics program has been developed through a grant from the Sloan Foundation's New Liberal Arts Program and was included in the College's curriculum for the first time in 1986-87. The concentration is offered as applied mathematics for students majoring in the natural sciences division and quantitative analysis for students in all other majors. Students electing the concentration must consult with their major adviser(s) as well as with the director of the quantitative analysis/applied mathematics program concerning specific requirements. All requirements for the departmental or interdisciplinary major must be satisfied in addition to courses required for the concentration. Students working to fulfill two majors should consult the director of the quantitative analysis/applied mathematics program for specific requirements.

### **Requirements for the Concentration in Quantitative Analysis**

(1) Quantitative Analysis 491 is required in all majors.

(2) Quantitative Analysis 111 is required for majors in the humanities and social sciences divisions.

(3) Computer Science 125 is required in all majors except chemistry and biology.

(4) A statistics course selected from Mathematics 112, 231, 241-242, 381-382 is required in all majors in the humanities and social sciences divisions with the exception of the major in economics.

(5) In the humanities division and the department of philosophy and religion: one additional course selected from Computer Science 126, 132, 231, Mathematics 117, 119, 121, 123, Philosophy 152, 258 (philosophy majors must take a course other than 152).

(6) In the social sciences division, Government 219 is required for government majors; History 294 for history majors; Psychology 371 for psychology majors. Majors in administrative science or sociology must take one course selected from Computer Science 132, 231, Mathematics 119, 121, 123, 272, Philosophy 152, 258 (Administrative Science 271 or 272 may be substituted by majors in that department). Economics majors must take two courses selected from Economics 336, 393, Mathematics 272.

(7) In the natural sciences division, specific requirements for the concentration also include: *Biology* majors must select one course from Mathematics 112, 231, 241, 381, and two courses selected from Biology 352, Chemistry 331, 341, Geology 271, Mathematics 272, or Psychology 214. *Chemistry* majors must take Mathematics 253 and either 124 or 222, and two courses selected from Computer Science 125, Mathematics 231, 241-242, 311, 332, 352, or 381-382. *Geology* majors must take either Mathematics 231 or 241-242 or 381-382, and may choose one course from Geology 333, 336, Mathematics 272. *Mathematics* majors must take Mathematics 272, 311, 372, 381-382, and one course from another discipline in which mathematical skills are applied, i.e., Administrative Science 372, Economics 336, 393, Physics 312. *Physics* majors must take three courses in computer science or in mathematics courses numbered 300 or above.

(8) Normally, students with interdisciplinary majors will follow the humanities division requirements for the concentration. Students with combined majors should consult the director of the quantitative analysis/applied mathematics program for the requirements for the concentration.

**111j Introduction to Quantitative Analysis** Introduction to mathematical concepts and quantitative methods in the context of their application to contemporary issues. Designed to demonstrate the persuasiveness of mathematics in today's world; topics include statistics, operations research, social choice theory, computing, and growth modeling. *Three or four credit hours.* INSTRUCTOR

**491, 492 Independent Study** This course is intended to provide students with experience in the use of quantitative skills. Wherever applicable, the course work should be tied to the student's major discipline. *Prerequisite:* Approval of the director of the quantitative analysis/applied mathematics program, and permission of the instructor. *Three credit hours.* FACULTY

## Religion

*In the department of philosophy and religion.*

*Chairman,* PROFESSOR YEAGER HUDSON

*Professors Hudson and Thomas Longstaff; Assistant Professors Debra Campbell and Nikky Singh*

The study of religion in a college curriculum involves the historical and comparative scrutiny of the world's religious traditions: Christianity, Judaism,

Islam, Buddhism, Hinduism, Confucianism, and Shinto. Inevitably, the examination of basic questions about religion, such as the existence and nature of God, religious experience, and the role of religion in society, are central to the discipline.

**Requirements for the Major in Religion**

Religion 133, 134, 211, 212, 233, 234, 316, either 491 or 492, and two additional courses in religion, at least one of which must be at the 300 level or higher.

While Philosophy 372 and 373 are not required, they are highly recommended and may be used to satisfy the requirement of two additional courses in religion.

**Requirements for the Major in Philosophy-Religion**

Religion 211, 212, 233, 234, 316, Philosophy 152, 211, 331, 332, 372, 373, either 491 or 492.

For each of the above majors, at least one *independent study project* of at least three credit hours (philosophy or religion) must be taken in January or one of the semesters of the junior or senior year.

The point scale for retention of each of the above majors applies to all courses that count toward the major.

Students majoring in religion or philosophy-religion, who have a grade point average of 3.0 or higher in the major, may apply during their junior year for admission to the honors program. On successful completion of the work for the honors program, including a thesis, their graduation from the College will be noted as being "With Honors in Religion" or "With Honors in Philosophy-Religion."

**117j A Passage to India: India and the Western Imagination** Beginning with Walt Whitman's romantic journeys toward the "soul" of the universe, the course will attempt to study Western attitudes towards India and India's encounter with Western culture in return. Literature and film will be the medium of this course's journey; works include *Siddhartha*, *The Jewel in the Crown*, *The Razor's Edge*, and *Heat and Dust*. *Three credit hours.* MS. SINGH

**118 Introduction to Archaeology** A first course in the principles and practice of field archaeology, examining both the theories and methods of modern, scientific excavation. Attention will be given to the importance of proper recording techniques as well as the tools and technology which contribute to successful excavation. Reference to both classical (especially biblical) and new world archaeology will be made. As conditions permit, the course will include excavation at a Colby site and other exercises designed to allow students to develop archaeological skills. Also listed as Anthropology 118. *Three credit hours.* MR. LONGSTAFF

**[119j] From Prophets to Profits** An examination of televangelism, its history and present and future prospects, beginning with the roots of televangelism in the revivals and campmeetings of the nineteenth century and in the Christian "self-help" literature popular in America since publication of Hannah Whitall Smith's *The Christian's Secret of a Happy Life* (1875). The course includes the pioneer televangelists, Billy Graham, Rex Humbard, Oral Roberts, and focuses on the televangelistic techniques of Jerry Falwell, Robert Schuller, Pat Robertson, Jim Bakker, and others, in an effort to understand their theologies, their popular appeal, and their political influence. *Three credit hours.*



**133 The Heritage of Western Religion I** A historical overview of the development of Western religion from the third to the sixteenth century; the transformation of the Christian religion from a persecuted, underground religion to an institution sanctioned by the state, and the growth of that institution through the Middle Ages and into the early modern period; theological developments, popular religious movements, and the experience and contributions of Jewish and Muslim communities in the West. *Four credit hours.* MS. CAMPBELL

**134 The Heritage of Western Religion II** A historical overview of the development of Western religion from the sixteenth century to the present; the variety of ways in which individual believers, congregations, and ecclesiastical authorities have articulated what it means to be religious in different social contexts from pre-Reformation Germany to modern Latin America. *Four credit hours.* MS. CAMPBELL

**201, 202 Biblical Hebrew** Although biblical languages are not offered as regularly scheduled courses, it is possible for students to study biblical Hebrew. Completion of both semesters is required to earn academic credit. Enrollment limited. *Prerequisite:* Permission of the instructor. *Three or four credit hours.* MR. LONGSTAFF

**203, 204 New Testament Greek** Although biblical languages are not offered as regularly scheduled courses, it is possible for students to study New Testament Greek. Completion of both semesters is required to earn academic credit. Enrollment limited. *Prerequisite:* Permission of the instructor. *Three or four credit hours.* MR. LONGSTAFF

**211 Religions of India** A study of Hinduism, Buddhism, Jainism, and Sikhism with a focus upon their religious texts and the cultural context within which they developed. An examination of the relationship these religious traditions have to one another, their metaphysical understanding of reality, their theories of the self, and their views of the social—as expressed in ritual, myth, and poetry. *Three credit hours.* MS. SINGH

**212 Religions of China and Japan** An examination of Confucianism, Taoism, and Shinto—the indigenous religions of China and Japan; tracing the entrance of Buddhism into China and Japan and the resulting transformation of this religion in its interaction with these civilizations. The political ideology of Confucianism, the mystical dimensions of Taoism, the mythological aspects of Shinto, and the meditative experiences of Buddhism (haiku, swordsmanship, and the tea ceremony, etc.). *Three credit hours.* MS. SINGH

**[213j] Contemporary Asian Ideas and Values** The impact of modernity upon the civilizations of India, China, and Japan as reflected in religion, art, philosophy, economics, and politics, focusing on the study of the presence of the past in the conflicts and ambiguities of the contemporary situation. *Three credit hours.*

**214 Religion, Magic, and Witchcraft** Listed as Anthropology 214 (q.v.). *Prerequisite:* Anthropology 112. *Three credit hours.* MR. PRINS

**†[217] Religion in America** A survey of the religious components of American history as they are related to the broader aspects of American culture. Attention

will be given to the beliefs and practices of Protestantism, Catholicism, and Judaism and to the issues, past and present, that are important for understanding religion in America. *Three or four credit hours.*

**[218] Buddhist Literature in Asia** A study of Asian story anthologies, biographies, epics, novels, plays, poems, and sermons inspired by Buddhism in India, Tibet, China, Japan, Sri Lanka, and Burma; the diverse relationships between religious intentions and literary form. *Three credit hours.*

**219j The Bible and Social Inequality** Listed as Sociology 219j (q.v.). *Prerequisite:* Permission of the instructor. *Three credit hours.* MS. GILKES

**232 Western Spirituality** In contrast to theology (formal discourse about God and divine-human relations), the field of spirituality focuses upon the specific efforts of individuals to achieve communion (or even union) with God. This course seeks to display the variety of ways that "ordinary people" and famous mystics within the Judeo-Christian tradition have sought to nurture close relations with God. It covers the period from the rise of Christianity through the present day. *Three credit hours.* MS. CAMPBELL

**233 Biblical Literature I** An introduction to the literature of the Hebrew Bible (the Old Testament) in terms of its historical context, its original meaning, and its significance in the contemporary world. The narratives, prophecies, and other literary forms are studied against the background of the history of Israel in order to understand the history and religion of the people for whom this literature became normative scripture. *Three or four credit hours.* MR. LONGSTAFF

**234 Biblical Literature II** Intended as a sequel to Religion 233; an introduction to the specifically Christian scriptures (the Old Testament Apocrypha and the New Testament). Beginning with the intertestamental period, an exploration of the literature which reflects the background and earliest stages of the Christian movement. Attention is given to the historical and cultural context of the literature, the development of early Christian theology, and its significance for the contemporary world. *Three or four credit hours.* MR. LONGSTAFF

**235 Sociology of Religion** Listed as Sociology 235 (q.v.). *Three credit hours.* MS. GILKES

**[239] Death and Dying** Modern and traditional religious approaches to the experience of death and dying. Death and dying from a psychological perspective, taking into account biomedical and ethical concerns; from a cross-religious standpoint, studying scriptures and rituals of Eastern and Western traditions; from a cross-cultural perspective, analyzing the expression of death and dying in sculpture, painting, and poetry of the East and West. *Three credit hours.*

**†[251] Religion and Art** The different theories of the relation between religion and art as reflected in ancient, medieval, and modern philosophers of art and in the religious traditions of East and West. Selective works of Plato, Aquinas, Tolstoy, Clive Bell, Coomaraswamy, and al-Farugi will be studied. Architecture, literature, symbols, arabesque, and iconography from the different religious traditions will be aesthetically encountered. *Three credit hours.*

†[252] **Village India** The unity and diversity of myths, rites, festivals, social practices, and domestic activities as embodied in the life of a north Indian village. The village will also serve as a mirror through which to examine the relationship between ancient Indus Valley civilization and modern India. *Three credit hours.*

†[253] **The Middle East** The ideal of separation of church and state, widely taken for granted in modern Western nations, is not characteristic of the Middle East. This course will examine similarities and differences among the three major religions of the Middle East (Judaism, Christianity, and Islam) and explore ways in which religion is an important factor in almost all areas of life. Employing films, readings, and material from contemporary news media, the course provides both an overall survey and an opportunity to explore in depth topics of individual interest. *Three or four credit hours.*

[254] **Islam and the Middle East** An introduction to Islam, beginning with Muhammad and the Qur'an and exploring the major beliefs, practices, and institutions of this religion. Consideration will be given to the diversity within Islam (e.g., Sunni, Mu'tazilite, Sufi, Shi'ite, etc.) as well as to its general characteristics. Attention will be given both to Islam in its formative period and to Islam as a dominant religion in the contemporary Middle East. *Three or four credit hours.*

\*257 **Women in American Religion** The changing role of women in American religious movements from the seventeenth century to the present, focusing on the experiences of "famous" women, e.g., Ann Hutchinson, the Salem witches, Mother Ann Lee, the Grimke sisters, Frances Willard, Elizabeth Cady Stanton, Dorothy Day, Mary Daly, as well as the experiences of "anonymous" women in Protestant, Roman Catholic, Jewish, and selected utopian communities. The ongoing struggle for women's ordination and women's equality within organized religion and the recent efflorescence of feminist theologies. *Three credit hours.* MS. CAMPBELL

\*259 **The Catholic Church in the Modern World** An examination of the Roman Catholic Church during the past century with special emphasis upon the ferment of the past quarter century; the documents of Vatican II, the emergence of Third World liberation theologies, and the evolution of Catholic teachings on sexuality, nuclear weapons, economic affairs, and the role of women in the church. *Three credit hours.* MS. CAMPBELL

[277, 278] **Religious Perspectives** Interdisciplinary considerations of various topics. *Three credit hours.*

[314] **Religion in Modern India** Rural and urban forms of religion in present day India: novels, anthropological accounts of village life, debates between learned religious specialists, and folk literature. Focus on the role of karma, notions of "caste," and the effects of modernization on religion. *Prerequisite:* Religion 211 or 258 or Anthropology 312 or permission of the instructor. *Three credit hours.*

[315] **Zen Buddhism** This Japanese school of Mahayana Buddhism is studied through the historical roots of Indian mysticism and Chinese naturalism, the establishment of Rinzai and Soto schools, the philosophical and psychological

idea of "no-mindedness," and the relationship of Zen with visual and aural arts. *Three credit hours.*

†[316] **Contemporary Western Theology** Basic traditions at the turn of the century (i.e., Protestant, Catholic, Jewish); a survey of developments to midcentury (e.g., biblical, philosophical, psychological, sociological); and significant developments since midcentury (the death of God, black theology, liberation theology, theology of hope, feminist theology, technology and religion). *Three credit hours.*

**317 Sikhism: The Poetry, Philosophy, and Music of the Guru Granth Sahib** The Guru Granth Sahib, the Sikh bible, forms the focal point for the literature of the Sikhs as well as other aspects of their culture and values. The seminar will outline its artistic and metaphysical dimensions including the reasons why it is considered a colossus in both Punjabi and world literature. *Three credit hours.* MS. SINGH

[351] **Reflections on Evil: A Study of the Book of Job** Can "personal religion"—the view that human beings are the objects of divine creation, nurture, guidance, and protection—survive the challenge of the experience of persistent evils in the world? This central question in the biblical book of Job, and one which has troubled men and women in every generation, is the focus of study of the book of Job in its historical and religious context; exploration of wider themes, including the relationship of the book to other literature in which the "problem of evil" is considered. *Prerequisite:* Religion 233 or permission of the instructor. *Three credit hours.*

†[352] **The Theology of Paul** Early Christian theology was more often shaped by the heat of controversy than by the calm analysis of theological reflection. Paul's letters, and the controversies that prompted them, will be studied as a basis for understanding Pauline theology, its relation to other elements of first-century religion, and its influence on later Western thought. *Prerequisite:* Religion 234. *Three credit hours.*

[353] **The Great Prophets of Israel** An intensive study of several of the Old Testament prophets, their lives, and messages. The course will consider each prophet's impact on his own times, and will raise the question of the importance of prophecy in ancient and modern times. *Prerequisite:* Religion 233. *Three credit hours.*

**356 The Afro-American Religious Experience** Listed as Sociology 356 (q.v.). *Prerequisite:* An introductory sociology or anthropology course or American Studies 274 or 276 or Religion 217 or permission of the instructor. *Three credit hours.* MS. GILKES

[358] **Jesus of Nazareth** An intensive study of the life and teachings of Jesus, employing the methods of gospel study developed in the nineteenth and twentieth centuries. The course will examine the canonical and extracanonical literature about Jesus, including recent studies of these materials. Attention will be given to the importance of the "quest for the historical Jesus" for contemporary Christianity. Open to freshmen and sophomores with permission of the instructor. *Prerequisite:* Religion 234. *Three credit hours.*

†[372] **Philosophy of Religion** Listed as Philosophy 372 (q.v.). *Three or four credit hours.*

†[373] **History of Medieval Philosophy** Listed as Philosophy 373 (q.v.). *Three or four credit hours.*

**391, [392] Religion Seminar: Judaism: Ancient and Modern** Using the widely acclaimed film series, "Heritage: Civilization and the Jews," together with other readings and discussions, the course will explore the origin and development of Jewish beliefs and practices from the biblical period to the twentieth century. The course will conclude with an assessment of the issues which Judaism faces in the late twentieth century. *Three credit hours.* MR. LONGSTAFF

**483, 484 Religion Honors Program** Majors may apply late in their junior year for admission into the Religion Honors Program. These courses require research conducted under the guidance of a faculty member and focused on an approved topic leading to the writing of a thesis. Upon successful completion of the thesis and the major, the student will graduate "With Honors in Religion." Enrollment limited. *Prerequisite:* Senior standing and a 3.0 grade point average in the major at the end of the junior year. *Three credit hours.* FACULTY

**491, 492 Independent Study** Individual projects in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *One to four credit hours.* FACULTY

## Russian

*In the department of modern foreign languages.*

*Visiting Associate Professor Sheila McCarthy; Assistant Professor Anthony Anemone<sup>1</sup>; Visiting Instructor David Mayberry*

Students interested in Russian are invited to consider a major in Russian and Soviet studies.

<sup>1</sup>On leave full year.

**125, 126 Elementary Russian** Introduction to the language by an audio-lingual method, with emphasis on understanding spoken Russian and on learning the structure of the language. The use of taped structural drills in the language laboratory is an integral part of the course. *Four credit hours.* MS. MCCARTHY

**127, 128 Intermediate Russian** Continued study of grammar, with emphasis on vocabulary building, reading, and self-expression. *Prerequisite:* Russian 126 or two years of high school Russian and appropriate score on the placement test. *Four credit hours.* MR. MAYBERRY

†[231, 232] **Topics in Russian Literature** Topics, which change every year, may cover an author, a genre, or a theme central to Russian literature of the nineteenth and twentieth centuries. Conducted in English, no knowledge of Russian required.

Russian majors are encouraged to do selected readings in Russian for a fourth credit hour. *Three or four credit hours.*

**237 Nineteenth-Century Russian Literature** Lectures and discussions of representative works in prose by Pushkin, Gogol, Lermontov, Goncharov, Turgenev, Dostoevsky, Tolstoy, and Chekhov. Conducted in English, no knowledge of Russian required. *Four credit hours.* MR. MAYBERRY

**238 Twentieth-Century Russian Literature** Close readings of works by such major writers as Sologub, Bely, Mayakovsky, Gorky, Babel, Bulgakov, Zamjatin, Olesha, Pasternak, and Solzhenitsyn. Readings and discussion in English, no knowledge of Russian required. *Four credit hours.* MS. MCCARTHY

**325, 326 Conversation and Composition** Grammar review and continued practice in oral and written expression. Reading and analysis of literary and historical texts from the nineteenth century. Original audio-visual taped materials supplement the readings. Conducted in Russian. *Prerequisite:* Russian 128 or 132 or permission of the instructor. *Four credit hours.* MR. MAYBERRY

**425, 426 Advanced Russian** A reading, writing, and discussion course which focuses on major themes from the twentieth century. Readings include short literary works, historical documents, and articles from Soviet literary and social science journals and newspapers. Original audio-visual taped materials supplement the readings. Conducted in Russian. *Prerequisite:* Russian 226 or permission of the instructor. *Four credit hours.* MS. MCCARTHY

**491, 492 Independent Study** Individual projects in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *One to three credit hours.* FACULTY

## Russian and Soviet Studies

*Director,* VISITING ASSOCIATE PROFESSOR SHEILA MCCARTHY

*ADVISORY COMMITTEE:* Professors Anthony Anemone<sup>1</sup> (*Modern Languages*), Charles Hauss (*Government*), Irina Livezeanu (*History*), and McCarthy (*Modern Languages*)

Of all the major countries of the world, the Soviet Union is perhaps the least understood by Americans. Russian and Soviet studies is an interdisciplinary major which will permit interested students to concentrate their advanced work in either Russian culture and literature or Soviet politics as they gain a deeper comprehension of the past, present, and future of the Soviet Union.

### Requirements for the Major in Russian and Soviet Studies

Russian 237, 238, 325, 326; Government 254 or History 254; History 261, 262; senior seminar or thesis in government, history, or Russian; three courses selected from Economics 275, 376, Government 239, 372, 397, History 314, 472; Russian 231, 232, 425, 426, 491, 492.

Majors are encouraged to pursue intensive language studies during summers, and to participate in a summer or semester in the Soviet Union.

The point scale for retention of the major applies to all courses offered toward the major. No requirement for the major may be taken pass/fail.

<sup>1</sup>On leave full year.

# Science and Technology Studies

*Director*, ASSOCIATE PROFESSOR LEONARD REICH

*Visiting Assistant Professor James Fleming*

ADVISORY COMMITTEE: *Professors Charles Bassett (English), Amy Boyd (Administrative Science and Mathematics), Fleming (Science and Technology Studies), Henry Gemery (Economics), Jonathan Hallstrom (Music), Beverly Hawk (Government), Linda Hoopes (Psychology), Carol Libby (Chemistry), Thomas Longstaff (Religion), Roger Metz (Physics), Randy Nelson (Economics and Administrative Science), and Reich (Administrative Science)*

During the last two centuries, science and technology have become increasingly important components of our world, changing the ways we live, work, and think. The Science and Technology Studies program is dedicated to understanding both how science and technology are pursued and the complex interactions between science, technology, and the societies in which they function.

## Requirements for the Concentration in Science and Technology Studies

The concentration comprises six courses. Two of them, "Introduction to Science and Technology Studies" and a senior research seminar, are required of all concentrators. Four other courses are chosen from the lists below, with the following restriction: non-laboratory-science majors are required to take at least one course from the list stressing scientific and technological methodologies and at least one course from the list emphasizing historical and/or social issues. Laboratory science majors are required to choose two courses from the latter list. At least two of the elective courses must be at the 200 level or higher. No more than one independent studies or field experience may be included as an elective for the concentration, and it must be taken for at least three credit hours.

In order to ensure that each student takes a coherent program of courses, the concentration must be declared and elected courses must be approved before the student has taken the third of four electives.

Courses that deal with scientific and technological methodologies:

*Chemistry*: 112 Chemistry for Citizens; 217 Environmental Chemistry.

*Music*: 198 Electronic Music.

*Physics*: 112 Energy and the Environment; 153 Essential Electronics.

*Psychology*: 233 Physiological Psychology.

Courses that deal with historical/social issues related to science and technology:

*Administrative Science*: 231 Technology, Corporate Strategy, and Competition; 251 Technology and Society in America; 336 Business, Technology and Ethics.

*Biology*: 219 Environmental Science.

*Economics*: 494 Senior Seminar (when topic is the economics or technological change).

*Government*: 239 Nuclear Weapons and Nuclear War.

*Music*: 137 History of Instruments.

*Technology Studies*: 297 Science in America.

Other related courses:

*Administrative Science*: 271 Decision Analysis.

*Computer Science*: 125 Introduction to Computer Science; 132 Computer Organization and Assembly Language.

*Economics*: 231 Environmental and Natural Resource Economics.

*Freshman Seminar*: 115 Communications and Technology.

*Quantitative Analysis*: 111 Introduction to Quantitative Analysis.

**[111] Computers: Past, Present, Future** This course provides a survey of what the educated person ought to know about computers. It is not a course in computer science; rather it includes such topics as the history of computers; the relationship between logic and computers; the power of and limitations of computers; and the opportunities and dangers that computer technology presents to society. Elementary electronics will be explored in a laboratory component, and individual projects encouraged. Does not satisfy a distribution requirement. *Three credit hours.*

**112 Introduction to Science and Technology Studies** Science and technology are becoming increasingly important components of our world, and this course aims to help students understand how and why they change, who controls them, and what impacts they have on our lives. Readings, lectures, and discussions on the historical, philosophical, social, and policy aspects of such technologies as electric power, television, computers, aviation, operations research, and biotechnology. *Three credit hours.* MR. FLEMING

**297 Science in America** A survey of the social, political, and institutional development of science in America from colonial times to the present. Topics include: scientists' roles in government, education, and industry; science in war; science, technology, and social issues; and the emergence of America as a leading scientific nation. *Three or four credit hours.* MR. FLEMING

## Selected Topics

**-97, -98 Study of Selected Topics** Each department and interdisciplinary major may from time to time offer special courses not otherwise included in its regular course listing. When such a course is offered, it will be listed under the appropriate subject heading. The first digit of its number will depend on the level at which it is offered. Titles, descriptions, prerequisites, and number and type of credits will be determined by the department or interdisciplinary major offering the course, and will be available at registration.

## Sociology and Anthropology

*Chairman,* PROFESSOR SONYA ROSE

*Professors Frederick Geib, Jonas Rosenthal<sup>1</sup>, Thomas Morrione, and Rose; Visiting Professor Ciaran McCullagh; Assistant Professors Cheryl Gilkes and Suzanne Falgout; Visiting Assistant Professors Hassan Danesh and Harald Prins*

The curriculum in sociology introduces students to the discipline, especially to the interplay of sociological theory and sociological research. Courses in the department foster appreciation of such sociological concerns as social inequality, social change, social control, deviance, conflict, and the formation of identity. By conducting research for course projects, students learn that sociology is an empirically-based social science; they learn to do sociology as well as to read about how it is done. The major helps prepare students to deal with the world by providing them with a critical and humanistic perspective. For those considering graduate school, it offers a comprehensive background in theory, methods, and their application in a variety of subject areas of the discipline. After developing



their own sociological perspective, students complete an independent research project which integrates their course work, their perspective, and their research findings.

#### **Requirements for the Major in Sociology**

Sociology 131, 215, 271, 371, 372, 494, and four additional sociology courses, totaling at least twelve hours (one course in anthropology at the 200 level or above may be substituted). Sociology 215 and 271 should be taken before the end of the sophomore year. Although Sociology 272 is not required, it is strongly recommended.

The point scale for retention of the major applies to all courses in anthropology and sociology. No requirement for the major may be taken pass/fail.

Attention is called to the independent concentration in anthropology and to the concentration in quantitative analysis.

Sociology courses above the 100 level have limited enrollments.

<sup>1</sup>On leave full year.

**[112j] Interaction Process Analysis** Theories and methods of understanding interpersonal behavior as it occurs in small groups. Synthesis of concepts, theory, and observation of the group. Enrollment limited to 16; preference given to freshmen. *Prerequisite:* No prior sociology courses and permission of the instructor. *Three credit hours.*

**131d Principles of Sociology** Human society: its growth, institutions, activities, and problems. The course attempts to synthesize the available knowledge and concepts necessary for a scientific understanding of our complex modern society. *Four credit hours.* MR. MORRIONE

**211, 212 Short Courses in Sociology** During each year several different short courses may be offered. A student may take any or all; however, registration is required for each course. Each course will run approximately four to six weeks. By department rule, dropping or adding any short course must be done *prior* to the second meeting of the class. Cannot be counted toward the sociology major unless Sociology 131 is taken previously or concurrently. Topics for 1988-89 are "Echoes of the Roaring Twenties," "The 1930s: A Time for Remembrance," "The Placid Decade: The 1950s," and "The Decade of Confrontation: 1960-1970." Enrollment limited. *Prerequisite:* Permission of the instructor. *One or two credit hours per short course.* MR. GEIB

**215d2 History of Sociological Theory** The history of sociology, and a critical survey of the systems of thought about society, centered on major schools of sociological theory and their representatives. The place of theory in social research as presented in works of major social theorists. *Prerequisite:* Sociology 131. *Three credit hours.* MR. DANESH

**219j The Bible and Social Inequality** The course explores the importance of gender, political organization, nationality, and economic position within the Bible and the biblical world and then examines the social and cultural importance of the Bible in issues of gender, race-ethnicity, class, and power in the United States. Also listed as Religion 219j. *Prerequisite:* Permission of the instructor. *Three credit hours.* MS. GILKES

**231 Contemporary Social Issues** Analysis of selected controversial issues and public problems in the contemporary United States. General theoretical frameworks in the sociology of social problems used to analyze issues from one or more perspectives; areas include alienation, economic and political freedom, the politics of morality, poverty, women's roles, and social inequality. *Prerequisite:* Sociology 131 or permission of the instructor. *Three credit hours.* MS. GILKES

**233 Criminology** This course introduces the student to the entire gamut of crime in society; the offense, the criminal, crime investigation, law enforcement, legal systems, and punishments. Current shortcomings as well as possible alternatives will be presented. An extra offering, the Crime Laboratory, is available for additional credit. Enrollment limited. *Prerequisite:* Sociology 131. *Three or four credit hours.* MR. GEIB

**235 Sociology of Religion** A survey and overview of religion as a social phenomenon and an object of sociological analysis. Topics include theoretical perspectives, research strategies, the problem of meaning and moral order, and religion as a group phenomenon involving social conflict, social organization, social class, race-ethnicity, gender relations, politics, popular culture, and public problems such as pluralism, innovation, secularization, religious economy. Also listed as Religion 235. *Three credit hours.* MS. GILKES

**237d2 The Sociology of Child Development** The family as transmitter of the culture, relationships between social forces acting upon the family and the socialization process, and relationships between family characteristics, transmission, and socialization. See also Education 213, 253, 254. *Prerequisite:* Sociology 131. *Three credit hours.* INSTRUCTOR

**[252] Race, Ethnicity, and Society** The role of intergroup conflicts, ethnic antagonisms, and racism in culture and social structure in the United States; topics include ethnic community experiences, immigration, enslavement, prejudice and discrimination, social movements, pluralism, and comparative perspectives. *Prerequisite:* Sociology 131. *Three credit hours.*

**271 Introduction to Sociological Research Methods** Introduction to a variety of research methods employed by sociologists. Topics include problem definition, the logic of inquiry, the relation between theory and research, research design, sampling, and techniques for data collection and analysis. *Prerequisite:* Sociology 131. *Four credit hours.* MS. ROSE

**272 Advanced Research Methods** Using either available resources or data collected for a specific investigative purpose, students will design and execute a research project. The course will incorporate manipulation of quantitative data using the computer, basic statistical analysis, interpretation of statistical results, and integration of empirical findings into sociological theory. *Prerequisite:* Sociology 271. *Three credit hours.* MR. DANESH

**[273] The Family** Changes in the family and its relationship to other institutions in society are examined using a sociohistorical perspective. *Prerequisite:* Sociology 131. *Four credit hours.*

**274 Social Inequality and Power** Using a historical and sociological orientation, the course examines how structured inequalities are socially created, and the social consequences of inequality. *Prerequisite:* Sociology 131 or permission of the instructor. *Three credit hours.* MR. DANESH

**275j Social Situations: Everyday Life** An introduction to issues, problems, and strategies relating to the observation and analysis of human interaction in natural social settings. A social-psychological perspective is developed through discussion of first-hand field experience and participant observation in a variety of settings. *Prerequisite:* Sociology 131 and permission of the instructor. *Three credit hours.* INSTRUCTOR

**276d1 Men and Women in Society** The behaviors expected of people because of their sex and differences in the status of men and women in society will be examined using a sociohistorical perspective. Theories accounting for sex differences will be analyzed, and the consequences of social inequality based on sex in contemporary society will be explored. *Prerequisite:* Sociology 131. *Three credit hours.* MS. ROSE

**277 Sociological Social Psychology** An analysis of major social-psychological views of human behavior, with special emphasis on the works of George Herbert Mead and Herbert Blumer. Human group life, social behavior, self, situations, and society examined from a symbolic interactionist point of view. *Prerequisite:* Sociology 131. *Four credit hours.* MR. MORRIONE

**292d1 Social Change** Beginning with an examination of the concept of social change, the course will focus on the changes in American life and value systems viewed from a variety of perspectives advanced by some of the theorists of change. Students who have earned credit for Sociology 115 or 122 may not take this course for credit. Enrollment limited. *Prerequisite:* Sociology 131. *Four credit hours.* MR. GEIB

**297 Sociology of Mass Media** This course will examine changing views of the media, the structure of media messages, politics and the media, the role of the audience, and theories of mass communications. *Three credit hours.* MR. MCCULLAGH

**316 Special Topics in Sociology: Social Structure of Modern Ireland** This course will examine selected aspects of Irish society, including economic development, politics, social class, religion, the family, and women's roles. *Three credit hours.* MR. MCCULLAGH

**[318] Contemporary Theory** An analysis of the contemporary state of sociology as a discipline. Special attention given to critical theory, phenomenology, ethno-methodology, symbolic interactionism, and existential sociology. *Prerequisite:* Sociology 131 and permission of the instructor. *Three credit hours.*

**[332] Industry and Occupations** Work is an activity that consumes a good portion of most people's lives. Using a historical and comparative approach, this course will focus on the changing meaning of work and on changes in the occupational structure, work settings, and the organization of work. *Prerequisite:* Sociology 131. *Four credit hours.*

**[334] Social Deviance** Definitions of deviance and theories of explanation and analysis of deviant behavior. Readings and discussions will emphasize the history and development of contemporary perspectives. Enrollment limited to 15; seniors and majors given preference. *Prerequisite:* Sociology 131 and permission of the instructor. *Three credit hours.*

**353 The City, Urbanization, and Development** An introduction to the process of urbanization and its effect on individuals and society, including sociological theories of urbanization from the early Chicago school to contemporary French structural Marxism, how cities are embedded in a broader social and cultural milieu, and the applicability of such sociological knowledge for understanding urbanization in developing countries. Enrollment limited. *Prerequisite:* Sociology 131. *Three credit hours.* MR. DANESH

**[355] Afro-American Women and Social Change** Sociological analysis and historical overview of Afro-American women and their families, work lives, and community (especially religious and political) experience. A focus is on the contradictions between lived experience and cultural expectations surrounding gender, and to the distinctive experiences of Afro-American women as a force for social change. Enrollment limited. *Prerequisite:* An introductory social science course or American Studies 274 or 276. *Three credit hours.*

**356 Afro-American Religious Experience** A sociological analysis and historical overview of the diverse religious organizations, leaders, experiences, and practices of black people in the United States. Emphasis on the predominant Afro-Christian experience, its relationship with the African background, contemporary African religions, other religions (e.g., Islam), political institutions, social change, urban problems, and the arts. Special attention to the role of black Christian women in church and society. Also listed as Religion 356. *Prerequisite:* An introductory sociology or anthropology course or American Studies 274 or 276 or Religion 217 or permission of the instructor. *Three credit hours.* MS. GILKES

**371, 372 Independent Integrating Project** Under faculty supervision, each student will complete an independent research project which is informed by the student's sociological perspective and reflects knowledge of both theoretical concepts and empirical research methods. Majors must begin planning and secure a faculty adviser for the project before the start of their final semester. *Prerequisite:* Sociology 131, 215, 271, and permission of the instructor. *Two to four credit hours.* FACULTY

**394 Collective Behavior** A course that seeks to shed light on the plight of contemporary man through the examination of the various instances of collective behavior—crowds, masses, publics, and social movements—and the forces that mold each. Consideration is given also to public opinion, propaganda, communication and the major mass media, and their functions in modern society. *Prerequisite:* Sociology 131 or permission of the instructor. *Four credit hours.* MR. GEIB

**[412] Sociological Issues in Third World Development** Major sociological and economic issues in Third World development and the interaction of social and economic forces in the development process. Among the issues to be addressed are:

the consequences of colonialism, theories of underdevelopment, structural demographic changes, industrialization, land reform, human-resource development, and the role of the state in the growth process. *Prerequisite:* Sociology 131. *Three credit hours.*

**491, 492 Independent Study** Individual topics in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Senior standing and permission of the department. *Two to four credit hours.* FACULTY

**494d1 Senior Sociology Seminar** The meaning and development of sociological perspectives. Individual projects developed from group discussions. *Prerequisite:* Permission of the instructor. *Three credit hours.* MR. MORRIONE

## Spanish

*In the department of modern foreign languages. Unless otherwise specified, all courses numbered above 127 are conducted in Spanish. Spanish 151 or 152 or permission of the instructor is required for all courses numbered 200 or higher.*

*Professor Francisco Cauz; Associate Professors Priscilla Doel and Jorge Olivares<sup>1</sup>; Assistant Professor Javier Gonzalez-Alonso<sup>2</sup>; Visiting Assistant Professor Javier Coca Senade; Instructor Barbara Nelson<sup>3</sup>; Visiting Instructors Matthew Bailey and Valentina Hernandez<sup>4</sup>*

*Achievement Test:* If a student offers a foreign language for entrance credit and wishes to continue it in college, that student must either have taken the College Board achievement test in the language or take the placement test during freshman orientation.

### Requirements for the Major in Spanish

Spanish 232 and at least seven additional semester Spanish courses numbered above 141; one course at the 200 level or above in each of the following areas: Golden Age, Modern Peninsular literature, and Spanish American literature.

The following statements also apply:

- (1) The point scale for retention of the major is based on all Spanish courses numbered above 141.
- (2) No major requirements may be taken pass/fail.
- (3) No more than the equivalent of four semester courses of foreign study or transfer credit may be counted toward the major.
- (4) All majors must take at least one course in Spanish approved by the major adviser each semester until graduation.

*Teacher Certification:* Students desiring certification for teaching Spanish should consult the department of modern foreign languages and the education department.

<sup>1</sup>On leave full year.

<sup>2</sup>Resident director, Colby in Cuernavaca, first semester.

<sup>3</sup>Part-time.

<sup>4</sup>Resident director, Colby in Salamanca, full year.

172 SPANISH

**115 Mexican History** A survey covering the period from the pre-Columbian civilizations through the modern era. Course conducted in Spanish. Nongraded. Offered in Cuernavaca. *Two credit hours.* FACULTY

**116 Mexican Society** An introduction to contemporary Mexican society with special emphasis on the role of the Indian and the mestizo. Course conducted in Spanish. Nongraded. Offered in Cuernavaca. *Two credit hours.* FACULTY

**117j Intensive Spanish** A course in oral and written Spanish given at the Center for Bilingual Multicultural Studies in Cuernavaca, Mexico, intended for students at the 100 level in Spanish. Nongraded. *Prerequisite:* Permission of the instructor. *Three credit hours.* INSTRUCTOR

**125, 126, 127 Intensive Spanish in Mexico** An intensive Spanish language course given in Cuernavaca, Mexico, and open primarily to incoming freshmen. *Twelve credit hours.* MR. GONZALEZ-ALONSO

**125, 126d Elementary Spanish** Introduction to the language by an audio-lingual method, with emphasis on understanding, speaking, and reading. Use of taped materials in the language laboratory is a regular part of the class work. *Four credit hours.* FACULTY

**127d Intermediate Spanish** Continued practice in the oral-aural skills, with increasing emphasis on reading and writing. *Prerequisite:* Spanish 126 or appropriate score on the College Board Spanish achievement test. *Four credit hours.* FACULTY

**127j Intensive Spanish** Reading and discussion of a play or a collection of short stories and an introduction to Hispanic culture; informal but directed conversation; oral presentations. Videos and films on Hispanic culture will supplement readings. Successful completion of course will satisfy the language requirement. Enrollment limited. *Prerequisite:* Spanish 126 or appropriate score on the College Board Spanish achievement test. *Three credit hours.* MR. CAUZ

**141d2 Introduction to Reading in Spanish** The development of reading skills through Spanish and Spanish-American texts. Enrollment limited. *Prerequisite:* Spanish 127. *Four credit hours.* MR. CAUZ

**142d1 Conversation and Composition** Language review with emphasis on oral expression, written composition, and vocabulary development. Enrollment limited. *Prerequisite:* Spanish 141 or permission of the instructor. *Three credit hours.* FACULTY

**151, 152 Introduction to Hispanic Literatures** Introduction to literary analysis through Spanish (151) and Spanish-American (152) texts. *Prerequisite:* Spanish 142 or permission of the instructor. *Three credit hours.* FACULTY

**153 An Introduction to Mexican Literature** A survey of Mexican literature from the colonial period through the twentieth century. Offered in Cuernavaca. *Three credit hours.* MR. GONZALEZ-ALONSO

†[218] **Spanish American Culture** A consideration of the ways representative Spanish American thinkers define *lo americano*. Topics for discussion will include cultural stereotypes, colonialism, anglophobia, miscegenation, and revolution. Readings from different genres (poetry, novel, essay, theater) and authors, such as Arriví, Carpentier, N. Guillén, Martí, Neruda, Paz, Rodó, and Vasconcelos. *Three credit hours.*

232 **Advanced Spanish** A review of Spanish grammar at the advanced level, with directed themes and free composition, and structured oral work on idiomatic usage. Enrollment limited. *Prerequisite:* Spanish 142 or permission of the instructor. *Four credit hours.* MR. GONZALEZ-ALONSO

255 **Nineteenth-Century Spanish Literature** Representative works of romanticism and realism. *Four credit hours.* INSTRUCTOR

†[256] **The Generation of 1898** The principal figures of this generation. Unamuno, Azorín, Baroja, Valle-Inclán, and Machado. *Four credit hours.*

257d2 **Modern Spanish Literature** The literature of twentieth-century Spain. *Four credit hours.* MR. GONZALEZ-ALONSO

261 **Spanish American Literature I** Spanish American literature from the Colonial period to 1888: Discovery, Colonization, and Independence. *Four credit hours.* MS. DOEL

†[262] **Spanish American Literature II** Spanish American literature from 1888 to the present. *Four credit hours.*

†[332] **Contemporary Spanish American Fiction** Authors will include Carlos Fuentes, Gabriel García Márquez, Manuel Puig, Julio Cortázar, and Jorge Luis Borges. *Four credit hours.*

†[337] **Medieval Spanish Literature** Medieval Spanish classics (*El Cid*, *El libro de buen amor*, *La Celestina*, and *El romancero*) and classic types (lords and vassals, prostitutes and pimps, sages and pages, liberated women and misogynist men, illicit lovers and idealistic dreamers). *Four credit hours.*

[351] **El Siglo de Oro** Prose, poetry, and theater of Spain in the sixteenth and seventeenth centuries, including authors such as Cervantes, Lope de Vega, Calderón, Tirso de Molina, Ruiz de Alarcón, Garcilaso, Fray Luis de León, and Quevedo. *Four credit hours.*

352 **Don Quijote** In depth reading and analysis of *Don Quijote de la Mancha*. *Four credit hours.* MS. DOEL

†[358] **The Contemporary Spanish Novel** The Spanish novel after the Spanish war (1936-39). Authors will include Carmen Laforet, Camilo José Cela, Ignacio Aldecoa, Jesús Fernández Santos, Juan Marsé, Luis Martín Santos, and Juan Goytisolo. *Four credit hours.*

**491, 492 Independent Study** Individual projects in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor. *Two to four credit hours.* FACULTY

**493, 494 Seminar in Spanish and Latin American Literature** Topics, which change each semester, may cover an author, a genre, or a literary movement. Topics to be announced. *Prerequisite:* Permission of the instructor. *Four credit hours.* FACULTY

## Special Programs

*Director,* ASSOCIATE PROFESSOR ROBERT KANY

Recognizing the fact that diverse interests exist in every community, and that even the most professionally trained individuals have a need to continue their education, Colby maintains a division of special programs with a full-time director.

Each summer, approximately 6,000 individuals from throughout the nation and other countries are on campus for courses, conferences, seminars, and institutes in areas of medicine, public and professional services, and youth camps.

The major focus of the summer program is continuing medical education (CME); indeed, Colby is the only undergraduate college in the country approved by the Accreditation Council for Continuing Medical Education to sponsor CME for physicians. There are about 15 CME offerings each year in a variety of specialty and family-practice programs attended by health-care professionals.

A coordinating council of Colby administrators and physicians from Waterville's Mid-Maine Medical Center advises and helps to manage this educational component.

Approximately 125 doctors enroll each summer in the nine-week Lancaster Course in Ophthalmology, and three- to five-day seminars are held in Anesthesiology, Diabetes, Emergency Medicine, Family Practice, Forensic Medicine, Gastroenterology, Allergy-Immunology, Obstetrics-Gynecology, Ophthalmology, Otolaryngology, Pediatrics, and Surgery. The Maine Orthopaedic Review is a two-week course. In addition to CME accreditation, for courses designed for primary-care physicians, American Academy of Family Practice credit is generally available.

Public and professional service programs include the Estate Planning and Tax Institute, Advanced Audiology, Church Music Institute, Great Books, and Piano Institute. The Portland String Quartet is in residence for two weeks. Youth camps for cheerleading, field hockey, soccer, football, basketball, running, etc., are available.

During the academic year, the division arranges such annual conferences as the Colby Institute for Management. Adult courses and noncredit courses for which the continuing education unit may be earned are also structured and evaluated through special programs. In addition, the use of Colby's facilities for conferences is coordinated through the division of special programs throughout the year.

Information may be obtained by writing to the director, Robert H. Kany.

## Women's Studies

*Coordinator,* ASSISTANT PROFESSOR PATRICE FRANKO-JONES

The women's studies program is devoted to analyzing the social, psychological,



political, economic, historical, and artistic dimensions of women's experience, drawing on courses from a broad range of disciplines to reflect the complexities of women's lives. It encourages the development of new methods of analysis and the introduction of previously neglected fields of study with the goal of enriching the entire college curriculum.

Students may pursue an independent concentration in women's studies or structure a major under the auspices of the independent major board with the guidance of the women's studies coordinators.

### **Requirements for the Concentration in Women's Studies**

A minimum of 24 credit hours in at least two departments, to include an introductory course at the 100 or 200 level; Women's Studies 493; at least one additional course each at the 200, 300, and 400 levels. At least 12 credit hours must be taken beyond the introductory level. No more than three credit hours of field experience may be taken toward the concentration.

### **Courses Offered in Women's Studies**

*American Studies:* 274 The Female Experience in America.

*Art:* 374 Women and Film.

*Economics:* 254 Women in the Labor Market; 319j The Economics of Poverty and Income Distribution in the United States.

*Education:* 294 Women in Professions.

*English:* 376 Studies in Modern Drama: Contemporary Women; 493, 494 Seminar in British or American Literature (as appropriate).

*French:* 236 Images of Women in French Literature; 351 French Canadian Literature; 353 Francophone Women Authors.

*Freshman Seminars:* 132 Global Perspectives on Gender, Race and Class.

*German:* 333 German Women Writers.

*Government:* 114 The Constitution and Civil Rights: Blacks, Women, and Gays in Late Twentieth-Century America; 312 Directions in Feminist Theory; 319 Law and Social Change: Women and Minorities; 414 Contemporary Social Theory; 434 Women in American Politics.

*History:* 211 Public Lives/Private Lives: Men and Women in Europe from the Middle Ages to the Present; 236 History of Women in Europe; 257 History of Women in America; 419 Seminar: Life History and the Historical Moment.

*Psychology:* 217 Sex Differences in Human Behavior.

*Religion:* 257 Women in American Religion.

*Sociology:* 219 The Bible and Social Inequality; 273 The Family; 276 Men and Women in Society; 355 Afro-American Women and Social Change.

*Women's Studies:* 111 Introduction to Women's Studies; 493 Seminar in Women's Studies.

**111j Introduction to Women's Studies** Through lectures and discussion of readings, the course will examine the contributions of feminist scholarship to the understanding of selected topics in the humanities, social sciences, and natural sciences. Social programs dealing with women's issues, and oral histories of women's lives. Enrollment limited. *Three credit hours.* MS. ROSE

**491, 492 Independent Study** Individual study of special problems in women's studies in areas where the student has demonstrated the interest and competence necessary for independent work. *Prerequisite:* Permission of the instructor and program coordinator. *One to four credit hours.* FACULTY

**493 Senior Seminar** An interdisciplinary seminar providing advanced level integrative analysis. *Prerequisite:* Permission of the instructor. *Three credit hours.*  
MS. CAPUTI

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# The Corporation 1988-89

## Corporate Name

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- RAE JEAN BRAUNMULLER GOODMAN '69, M.A. '83, Ph.D., Annapolis, Maryland, *Professor of Economics, United States Naval Academy* (Al. 1989)
- NANCY SPOKES HAYDU '69, M.A. '86, M.C.R.P., Dover, Massachusetts (1990)
- GERALD JAY HOLTZ '52, M.A. '84, M.B.A., Brookline, Massachusetts, *Partner, Arthur Andersen & Co.* (1989)
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- SARAH JANNEY ROSE '76, M.A. '85, Washington, D.C., *Private Investor* (1991)
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- RICHARD ROBERT SCHMALTZ '62, M.A. '76, Wyomissing, Pennsylvania, *Executive Vice President, McGlinn Capital Management, Inc.* (1991)
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- BARBARA HOWARD TRAISTER '65, M.A. '88, Ph.D., North Hills, Pennsylvania, *Associate Professor of English, Lehigh University* (Al. 1991)

EDWARD HILL TURNER, A.B., M.A. '82, L.H.D. '73, Belgrade, Maine, *Vice President for Development Emeritus, Colby College* (1991)

WILLIAM DUNBAR WOOLDREDGE '61, M.A. '88, M.B.A., Hudson, Ohio, *Chief Financial Officer, Belden & Blake Energy Corporation* (Al. 1991)

### Faculty Representative

RICHARD JAMES MOSS, Ph.D., China, Maine, *Associate Professor of History* (1990)

### Student Representatives

MARC D. ENGER '89, St. Louis, Missouri (1989)

LESLIE A. DOUGHERTY '89, Atlanta, Georgia (1989)

<sup>1</sup>Former chairman of the board.

<sup>2</sup>Life member.

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DORIS HARDY HAWHEELI '25, M.A. '52, 1952-1958

JEAN GANNETT HAWLEY, M.A. '60, L.H.D. '59, 1960-1972

DANIEL RAY HOLT '21, M.A. '56, 1956-1962

PHILIP WILLIAM HUSSEY, JR. '53, M.A. '81, 1981-1987

CLAYTON WEARE JOHNSON '26, M.A. '65, 1965-1971

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RITA ANN MCCABE '45, M.A. '66, 1966-1972, 1973-1983

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 C. DAVID O'BRIEN '58, M.A. '75, 1975-1985  
 BETTINA WELLINGTON PIPER '35, M.A. '64, 1964-1970  
 KERSHAW ELIAS POWELL '51, M.A. '82, D.M.D., 1982-1988  
 LAWRENCE REYNOLDS PUGH '56, M.A. '82, 1982-1988  
 PATRICIA RACHAL '74, M.A. '80, Ph.D., 1983-1986  
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 ALICE LINSKOTT ROBERTS '31, M.A. '54, 1954-1960  
 HENRY WESTON ROLLINS '32, M.A. '62, 1962-1968  
 ROBERT CONVERSE ROWELL '49, M.A. '61, 1961-1967  
 DWIGHT EMERSON SARGENT '39, M.A. '56, M.A. '58, 1958-1964, 1971-1974  
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 RUSSELL MILLARD SQUIRE, SR. '25, M.A. '48, 1948-1955  
 EUGENE CHARLES STRUCKHOFF '44, M.A. '67, LL.B., 1967-1970  
 W. CLARKE SWANSON, JR., M.A. '70, LL.B., 1970-1976  
 ARTHUR TOTTEN THOMPSON '40, M.A. '70, M.B.A., Sc.D. '69, 1970-1974  
 SIGRID EMMA TOMPKINS '38, M.A. '70, LL.B., 1970-1976, 1977-1985  
 PETER AUSTIN VLACHOS '58, M.A. '77, 1977-1980  
 JEAN MARGARET WATSON '29, M.A. '65, M.A., 1965-1971  
 THOMAS JOHN WATSON III '67, M.A. '75, J.D., 1975-1981  
 ESTHER ZISKIND WELTMAN, M.A. '58, M.Ed., LL.D. '66, 1958-1973, 1974-1977  
 RALPH SAMUEL WILLIAMS '35, M.A. '73, M.B.A., L.H.D. '72, 1973-1983  
 ROBERT FREDERIC WOOLWORTH, M.A. '65, 1965-1977

### Overseers

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 JOSEPH ROBERT ALPERT '54, M.A. '82, Dallas, Texas, *President, Alpert Corporation* (1990)  
 CLIFFORD ALLAN BEAN '51, M.A. '70, M.B.A., Concord, Massachusetts, *Management Consultant, Arthur D. Little, Incorporated*, Trustee Budget and Finance Committee, Visiting Committees on Economics, on Administrative Science, and on Development (1989)  
 JOSEPH J. BLANEY, Ed.D., Rhinebeck, New York, *Director, United Nations International School* (1991)  
 CHARLES WILLIAM CAREY '63, M.A., Cumberland, Rhode Island, *Executive Vice President, Fleet National Bank*, Visiting Committee on American Studies (1990)



JAMES ROBERT COCHRANE '40, Laconia, New Hampshire, *Board of Directors, Former President, The Seiler Corporation*, Visiting Committees on Admissions and on Career Services (1990)

EDWARD R. CONY '44, M.A., Manhasset, New York, *Associate Editor, The Wall Street Journal*, Visiting Committees on American Studies and on Publications and Public Affairs (1989)

LLOYD E. COTSEN, M.B.A., Beverly Hills, California, *President and Chief Executive Officer, Neutrogena Corporation* (1989)

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AUGUSTINE ANTHONY D'AMICO '28, M.A. '54, D.F.A. '78<sup>1</sup>, Bangor, Maine, *President Retired, Penobscot Paint Company* (1989)

JUDITH DE LUCE '68, Ph.D., Oxford, Ohio, *Chairman of the Classics Department, Miami University* (1992)

EDITH EILENE EMERY '37, M.A. '60, M.A., Haverhill, Massachusetts, *Associate Dean of Students Emeritus, Northeastern University*, Visiting Committee on Student Affairs (1989)

JOHN WARNER FIELD, SR., B.A., M.A. '60, Fairfield, Connecticut, *Management and Finance Consultant, Mine Hill Consultants Office*, Visiting Committees on Economics and Administrative Science (1989)

ROBERT MICHAEL FUREK '64, M.B.A., West Hartford, Connecticut, *President and Chief Operating Officer, Hueblein, Incorporated* (1991)

JEROME F. GOLDBERG '60, J.D., South Portland, Maine, *President, J. F. Goldberg Associates* (1992)

RAYBOUTELLE GREENE, JR. '47, M.A. '75, Needham, Massachusetts, *Owner, Greene Associates*, Visiting Committees on Psychology and on Biology (1989)

CURTIS C. HARRIS, M.D., Bethesda, Maryland, *Chief, Laboratory of Human Carcinogenesis, National Cancer Institute* (1991)

JAMES JEROME HARRIS '27, Fort Lauderdale, Florida, *Former Chief Executive Officer, Guest Pac Corporation*, Visiting Committee on Administrative Science (1989)

PETER DAVID HART '64, LL.D. '85, Washington, D.C., *President, Peter D. Hart Research Association, Incorporated*, Visiting Committee on History (1989)

ELLEN B. HAWHEELI '69, New York, New York, *General Partner, Spear, Leeds and Kellogg* (1992)

JANET GAY HAWKINS '48, Plandome, New York, Visiting Committees on the Library and on Health Services (1989)

SUSAN SMITH HUEBSCH '54, South Dartmouth, Massachusetts, *Real Estate Broker* (1989)

H. ALAN HUME, M.D., Oakland, Maine, *Chief of Staff, Mid-Maine Medical Center*, Visiting Committees on Chemistry, on Biology, and on Health Services (1989)

SOL HURWITZ, B.A., Rye, New York, *Senior Vice President, Committee for Economic Development*, Visiting Committees on Psychology, on Publications and Public Affairs, and on English (1989)

EDITH KEMPER JETTÉ, M.A. '62, Boston, Massachusetts, *Cofounder, The Friends of Art at Colby*, Visiting Committee on Art (1989)

KENNETH ALGERNON JOHNSON '37, M.A. '72, M.A.<sup>2</sup>, Newton Upper Falls, Massachusetts, *Assistant Headmaster-History, Boston Latin School*, Ralph J. Bunche Scholars Program (1991)

ALLAN JORDAN LANDAU '55, LL.M., Boston, Massachusetts, *Attorney, Widett, Slater & Goldman, P.C.*, Visiting Committee on Physical Education and Athletics (1992)

ROBERT ALF LINDGREN, J.D., New York, New York, *Partner, Rogers and Wells*, Visiting Committees on Music and the Performing Arts, on Art and the Museum of Art, and on Dining Services (1991)

PETER HAROLD LUNDER '56, Waterville, Maine, *President, Assistant Treasurer, and Director, Dexter Shoe Company*, Visiting Committees on Physical Plant and on Art and the Museum of Art (1990)

WILLIAM THOMAS MASON, Jr. '47, LL.B., Norfolk, Virginia, *Attorney, Robinson, Eichler, Zaleski & Mason*, Visiting Committee on Black Studies and Women's Studies (1991)

DEBORAH NUTTER MINER '68, Ph.D., Westwood, Massachusetts, *Chairman, Government Department, Simmons College* (1992)

ROBERTA PETERS, Mus.D. '81, Scarsdale, New York, *Opera Singer, ICM Artists, Ltd.*, Visiting Committee on Music and the Performing Arts (1989)

C. RICHARD PETERSON '60, Bryn Mawr, Pennsylvania, *Executive Vice President and Eastern Regional Director, Fred S. James & Company*, Visiting Committee on History (1991)

WILLIAM JOSEPH ROUHANA, JR. '72, J.D., Port Washington, New York, *President, WinStar Corporation*, Visiting Committees on Administrative Science and on Psychology (1990)

FREDERICK ALFRED SCHREIBER '34, M.A., Beverly Hills, California, *Management Consultant*, Visiting Committee on East Asian Studies (1989)

PAUL JACQUES SCHUPF, B.A., Hamilton, New York, *President, Schupf, Woltman & Company, Incorporated*, Visiting Committee on Art and the Museum of Art (1989)

PETER C. SCHWARTZ, L.L.B., Glastonbury, Connecticut, *Partner, Gordon, Muir and Foley*, Visiting Committee on Student Affairs (1992)

JOHN MICK SEIDL, Ph.D., Houston, Texas, *President and Chief Operating Officer, Enron Corporation*, Visiting Committees on Geology, on Physics and Astronomy, and on Philosophy and Religion (1991)

GEORGE IRVING SMITH '49, Ph.D., Menlo Park, California, *Geologist, U.S. Geological Survey*, Visiting Committee on Mathematics (1989)

GREGORY W. SMITH '73, J.D., New York, New York, *President, Woodward/White, Inc.*, Visiting Committee on American Studies (1992)

ELAINE ZERVAS STAMAS '53, Scarsdale, New York, Visiting Committees on Music and the Performing Arts and on Health Services (1991)

M. LAEL SWINNEY STEGALL '62, Washington, D.C., *Partner, Communication Consortium* (1992)

SYLVIA CARON SULLIVAN '53 (Mrs. George), Nashville, Tennessee, Visiting Committee on Education (1989)

M. ANNE O'HANIAN SZOSTAK '72, M.A. '74, Warwick, Rhode Island, *Executive Vice President, Branch Administration, Fleet National Bank*, Visiting Committees on Black Studies and Women's Studies and on Career Services (1989)

JUDITH PROPHETT TIMKEN '57, Lafayette, California, *Art Docent, Oakland Museum*, Visiting Committees on Music and the Performing Arts and on Art and the Museum of Art (1992)

MARY ELIZABETH TURNER '63, M.A., Bronx, New York, *Publisher/Editor, "Black Masks" Magazine*, Visiting Committee on American Studies (1991)

FREDERICK W. VALONE '72, Ph.D., Houston, Texas, *Senior Chemist, Texaco, Incorporated*, Visiting Committee on Biology (1991)

<sup>1</sup>Died March 5, 1988

<sup>2</sup>Died October 14, 1987

## Overseers Visiting Committees 1987-88

**History** November 2-4, 1987 / Mr. Peter Hart, chairman; Professor Mary Kelly, Department of History, Dartmouth College, consultant; Mr. Richard Peterson.

**Health Services** February 10-12, 1988 / Dr. Alan Hume, chairman; Mrs. Janet Hawkins; Mrs. Elaine Stamas; Dr. George Miller, former physician, Hamilton College, consultant.

**Student Affairs** February 14-16, 1988 / Ms. Edith Emery, chairman; Dr. Frank Apantaku; Mr. Ben Lieber, Dean of Students, Amherst College, consultant; Mr. Peter Schwartz.

**Dining Services** March 6-8, 1988 / Mr. Robert Lindgren, chairman; Mrs. Eleanor Campbell; Mr. Phillip McGreevy, Director of Dining Services, Saint Anselm College, consultant; Mr. Wilson Piper.

**Psychology** March 10-12, 1988 / Mr. David Pulver, chairman; Professor Sharon Herzberger, Department of Psychology, Trinity College, consultant; Ms. Beverly Nalbandian; Mr. William Rouhana.

**American Studies** March 13-15, 1988 / Ms. Mary Beth Turner, chairman; Mr. Charles Carey; Professor Barry O'Connell, Department of American Studies, Amherst College, consultant; Mr. Gregory Smith.

**Philosophy and Religion** April 14-16, 1988 / Mr. John Seidl, chairman; Mr. James Crawford; Professor Ellison Findly, Department of Religion, Trinity College, consultant; Professor Lynn Rudder Baker, Department of Philosophy, Middlebury College, consultant.

# Faculty 1987-89

WILLIAM R. COTTER, M.A. '79, L.H.D., J.D. (Harvard), 1979-  
*Professor of Government; President*

DOUGLAS NELSON ARCHIBALD, M.A. '73, Ph.D. (Dartmouth, Michigan), 1973-  
*Professor of English; Vice President for Academic Affairs and Dean of Faculty,*  
1982-88

ROBERT PAUL MCARTHUR, M.A. '83, Ph.D. (Villanova, Temple), 1972-  
*Professor of Philosophy; Vice President for Academic Affairs and Dean of Faculty,*  
1988-

## Emeriti

ROBERT EDWARD LEE STRIDER II, M.A. '57, Ph.D., Litt.D. '79, 1957-79  
*Professor of English, Emeritus; President, Emeritus*

DENNISON BANCROFT, M.A. '59, Ph.D., 1959-74  
*Professor of Physics, Emeritus*

CLIFFORD JOSEPH BERSCHNEIDER, M.A. '78, M.A., 1949-85  
*Professor of History, Emeritus*

ARCHILLE HENRI BIRON, M.A. '74, A.M., 1950-77  
*Professor of Modern Languages, Emeritus*

MARJORIE DUFFY BITHER, M.A. '76, M.A., 1935-41, 1957-79  
*Professor of Physical Education, Emerita*

PHILIP STEWART BITHER '30, M.A. '73, M.A., 1932-74  
*Professor of Modern Languages, Emeritus*

JAMES MORTON CARPENTER, M.A. '54, Ph.D., 1950-81  
*Jetté Professor of Art, Emeritus*

RICHARD CARY, M.A. '62, Ph.D., 1952-75  
*Professor of English, Emeritus*

WILFRED JAMES COMBELLACK '37, M.A. '48, Ph.D., 1948-80  
*Professor of Mathematics, Emeritus*

ALICE PATTEE COMPARETTI, M.A. '61, Ph.D., 1936-73  
*Professor of English, Emerita*

ERMANNIO FRANCIS COMPARETTI, M.A. '53, Ph.D., 1941-74  
*Professor of Music, Emeritus*

FLORENCE ELIZABETH LIBBEY CRAWFORD '29, M.S., 1948-71  
*Associate Professor of Library Science, Emerita*

RICHARD NYE DYER, B.A., 1950-83  
*Assistant to the President, Emeritus*

JACK DONALD FONER, M.A. '73, Ph.D., L.H.D. '82, February 1969-74; Visiting  
Scholar in Residence, September-December 1983, September-December 1985  
*Professor of History, Emeritus*

JAMES MACKINNON GILLESPIE, M.A. '69, Ph.D., 1951-84

*Professor of Psychology, Emeritus; Associate Dean of Students, Emeritus*

ADEL VERNA HEINRICH, A.Mus.D. (Flora Stone Mather, Union Theological, Wisconsin), 1964-1988

*Associate Professor of Music, Emerita; Director of Chapel Music, Emerita*

HENRY HOLLAND, M.A. '66, Ph.D. (Maine, Harvard, Madrid), 1952-1988

*Professor of Modern Languages (Spanish), Emeritus; Resident Director of Colby in Cuernavaca Program, Emeritus*

EARL AUSTIN JUNGHANS, M.S., 1960-72

*Associate Professor of Mathematics, Emeritus*

RICHARD KNOWLTON KELLENBERGER<sup>1</sup>, M.A. '60, Ph.D., 1946-76

*Professor of Modern Languages, Emeritus*

DONALDSON KOONS, M.A. '51, Ph.D., 1947-82, January 1984, 1985, 1986, 1987, 1988

*Dana Professor of Geology, Emeritus*

PAUL EWERS MACHEMER, M.A. '67, Ph.D., 1955-83

*Merrill Professor of Chemistry, Emeritus*

GEORGE DOUGLAS MAIER, M.A. '83, Ph.D., 1965-1986

*Professor of Chemistry, Emeritus*

E. JANET MARCHANT, M.A., 1940-65

*Associate Professor of Physical Education, Emerita*

LEONARD WITHINGTON MAYO '22, M.A. '57, D.S.S. '42, 1966-71

*Professor of Human Development, Emeritus*

EARLE ALTON MCKEEN '29, M.Ed., 1955-71

*Associate Professor of Education, Emeritus*

WILLIAM BLACKALL MILLER, M.A. '74, Ph.D., 1956-82, February-June 1984

*Professor of Art, Emeritus*

GEORGE THOMAS NICKERSON '29, M.A., 1948-67

*Dean of Men, Emeritus*

LUELLA FREDERICKA NORWOOD, M.A. '52, Ph.D., February 1943-53

*Professor of English, Emerita*

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*Professor of Religion, Emeritus; Chaplain, Emeritus*

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*Dana Professor of Philosophy, Emeritus*

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*Professor of Psychology, Emeritus*

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*Professor of Economics, Emeritus; Administrative Vice President, Emeritus*

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*Professor of Music, Emeritus*

EVANS BURTON REID, M.A. '58, Ph.D., 1954-78

*Merrill Professor of Chemistry, Emeritus*

ALLAN CHARLES SCOTT, M.A. '51, Ph.D., 1951-73, January 1984

*Dana Professor of Biology, Emeritus*

FRANCES FENN SEAMAN, B.Mus., 1957-68

*Dean of Students, Emerita*

GORDON WINSLOW SMITH, M.A. '71, M.A., 1930-72

*Professor of Modern Languages, Emeritus*

NORMAN SWASEY SMITH, M.Ed., 1945-68

*Associate Professor of Education, Emeritus*

IRVING DAVID SUSS, M.A. '73, Ph.D., 1957-80

*Professor of English, Emeritus*

JOHN HALE SUTHERLAND, M.A. '70, Ph.D., 1951-86

*Professor of English, Emeritus*

ROBERT LEE TERRY, M.A. '67, Ph.D., 1952-83

*Professor of Biology, Emeritus*

EDWARD HILL TURNER, A.B., M.A. '82, L.H.D. '73, 1953-78

*Vice President for Development, Emeritus*

RALPH SAMUEL WILLIAMS '35, M.A. '73, M.B.A., L.H.D. '72, 1947-73

*Wadsworth Professor of Administrative Science, Emeritus; Administrative Vice President, Emeritus*

LUCILLE PINETTE ZUKOWSKI '37<sup>2</sup>, M.A. '71, M.A., 1943-82

*Professor of Mathematics, Emerita*

WALTER HENRY ZUKOWSKI, M.A. '65, Ph.D., 1952-82

*Wadsworth Professor of Administrative Science, Emeritus*

<sup>1</sup>Died December 5, 1987.

<sup>2</sup>Died October 12, 1987.

## Faculty

The faculty is arranged alphabetically. In parentheses are listed colleges and universities from which earned degrees have been received.

PAULA ANN ABOUD, B.A. (University of Arizona), 1986-

*Adjunct Instructor in Physical Education*

DEBRA ANN AITKEN, M.Ed. (Frostburg State [Maryland], Plymouth State), 1985-

*Adjunct Assistant Professor of Physical Education*

DONALD BRUCE ALLEN, M.A. '82, Ph.D. (Fresno State, Illinois), 1967-

*Professor of Geology*

MANUEL ALVAREZ, J.D. (Yale), 1987-88

*Visiting Instructor in Modern Languages (Spanish)*

JAMES C. ANDERSON, Ph.D. (Syracuse), 1985-

*Visiting Associate Professor of Philosophy*

ANTHONY ALFRED ANEMONE, JR., Ph.D.<sup>2</sup> (Columbia, California at Berkeley), 1985-

*Assistant Professor of Modern Languages (Russian)*

- DOUGLAS NELSON ARCHIBALD, M.A. '73, Ph.D. (Dartmouth, Michigan), 1973-  
*Professor of English; Vice President for Academic Affairs and Dean of Faculty, 1984-88; Editor of Colby Library Quarterly, 1986-*
- SAMUEL LEIGH ATMORE, M.S. (Pennsylvania State, Simmons), 1977-  
*Faculty Member without Rank: Audiovisual Librarian*
- TOM C. AUSTIN, B.S. (Maine), 1986-  
*Adjunct Associate Professor of Physical Education*
- MATTHEW BAILEY, M.A. (Maine, Tulane), 1988-  
*Visiting Instructor in Modern Languages (Spanish)*
- CAROL HOFFER BASSETT, M.A.<sup>7</sup> (South Dakota), 1974-  
*Assistant Professor of Mathematics*
- CHARLES WALKER BASSETT, M.A. '80, Ph.D. (South Dakota, Kansas), 1969-  
*Dana Professor of American Studies and English*
- ROBERT MARK BENBOW, M.A. '62, Ph.D. (University of Washington, Yale), 1950-  
*Roberts Professor of English Literature*
- MIRIAM FRANCES BENNETT, M.A. '73, Ph.D. (Carleton, Mount Holyoke, Northwestern), 1973-  
*William R. Kenan, Jr., Professor of Biology*
- WILLIAM BERLINGHOFF, Ph.D. (Holy Cross, Boston College, Wesleyan), 1988-  
*Visiting Professor of Mathematics*
- JOEL CHARLES BERNARD, Ph.D.<sup>8</sup> (Cornell, Yale), 1980-  
*Assistant Professor of History*
- PARKER JOY BEVERAGE, M.A. (Dartmouth, Stanford), 1985-  
*Faculty Member without Rank: Dean of Admissions and Financial Aid*
- MARTIN BIER, Ph.D. (University of Amsterdam [Holland], Clarkson), 1987-  
*Visiting Assistant Professor of Mathematics*
- ERIC ALEXANDER GRINDLAY BINNIE, Ph.D. (Strathclyde [Scotland], McMaster [Canada], Toronto [Canada]), 1984-87  
*Associate Professor of English and Performing Arts*
- MARLIES BLACK, M.A.<sup>7</sup> (University of Freiburg [Germany]), February-June 1989  
*Visiting Instructor in Modern Languages (German); Resident Director of the Colby in Lübeck Program*
- PAMELA ANN BLAKE, Ph.D.<sup>2</sup> (St. Lawrence, Cornell), 1985-  
*Assistant Professor of Government*
- ANN CECILY BLASINGHAM, Ph.D. (University of Cincinnati), 1988-  
*Taylor Lecturer in Classics*
- DAVID BRUCE BOURGAIZE, Ph.D. (Ohio Northern, Massachusetts at Amherst), 1988-  
*Assistant Professor of Chemistry*
- ELIZABETH HOWARD BOWEN '81, M.A. (Colby, Brown), September 1986-January 1987, 1987-  
*Visiting Instructor in Modern Languages (French)*

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ROGER WILSON BOWEN, M.A. '87, Ph.D. (Wabash, Michigan, British Columbia), 1978-

*Professor of Government and East Asian Studies*

AMY HANCOCK BOYD, Ph.D. (Michigan, Stanford, Michigan), 1986-  
*Assistant Professor of Administrative Science and of Mathematics*

JAMES BOYLAN, M.A. (Wesleyan, Johns Hopkins), 1988-  
*Visiting Assistant Professor of English*

PATRICK BRANCACCIO, M.A. '79, Ph.D. (Brooklyn, Ohio State, Rutgers), 1963-  
*Professor of English and Performing Arts; Resident Director of Colby in London Program, 1988-89*

RUTH BRANCACCIO, M.A.<sup>7</sup> (Brooklyn, Holloway [London]), 1987-88  
*Visiting Adjunct Lecturer in Performing Arts*

MORTON AARON BRODY, J.D.<sup>7</sup> (Bates, Chicago), 1984-  
*Visiting Professor of Government*

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*Visiting Instructor in Geology*

CEDRIC BRYANT, M.A. (San Diego State, California at San Diego), 1988-  
*Instructor in English*

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*Dana Professor of French Literature*

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JEANNE BURNETTE, M.L.S.<sup>10</sup> (Maine), January 1979-  
*Faculty Member without Rank: Cataloguer, Library*

DAVID CALHOUN, M.A. (Louisiana State, Northwestern), 1988-  
*Visiting Instructor in Philosophy and Religion*

DEBRA CAMPBELL, Ph.D. (Mt. Holyoke, St. Michael's [Toronto], Boston University),  
January-June 1983; 1986-  
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*Associate Professor of Modern Languages (Portuguese and Spanish)*

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*Professor of Physics*
- JEFFREY EHRENREICH, Ph.D. (Bridgeport, New School for Social Research), 1987-88  
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- SUZANNE FALGOUT, Ph.D. (New Orleans, Oregon), 1987-  
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*Associate Professor; Alumni Secretary; Secretary of the Corporation*
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- MONIQUE LOUISE FECTEAU '79, B.A. (Colby), September -December 1987, 1988-  
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- LEE NATHAN FEIGON, Ph.D.<sup>2</sup> (California at Berkeley, Chicago, Wisconsin), 1976-  
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- FRANK ALEXANDER FEKETE, Ph.D. (Rhode Island at Kingston, Rutgers), 1983-  
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- CHARLES ANTHONY FERGUSON, Ph.D.<sup>2</sup> (Oberlin, Ohio State), 1967-  
*Associate Professor of Modern Languages (French, Italian)*
- GUY THEOPHILE FILOSOF, M.A. '81, Ph.D. (Rollins, Middlebury, Rochester), 1969-  
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- DAVID WARREN FINDLAY, Ph.D.<sup>6</sup> (Acadia [Canada], Purdue), 1985-  
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- DAVID H. FIRMAGE, M.A. '88, Ph.D. (Brigham Young, Montana), February 1975-  
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- JAMES FLEMING, Ph.D. (Pennsylvania State, Colorado State, Princeton), 1988-  
*Visiting Assistant Professor of Science-Technology Studies*
- DOUGLAS WALTER FORBES, Ph.D. (Lyndon State, Saint Mary's [Nova Scotia], University of Victoria [British Columbia]), 1987-88  
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- BRUCE FRECH, Ph.D. (Rensselaer, Virginia), 1988-  
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*Visiting Instructor in Biology*

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*Visiting Instructor in Economics*

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*Assistant Professor of Music*

THOMAS A. HANNULA, Ph.D. (University of Illinois), 1987-88  
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*The Grossman Professor of Economics*

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*Professor of English*
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*Professor of English and Performing Arts*
- DONALDSON KOONS, M.A. '51, Ph.D. (Columbia), 1947-82, January 1984, 1985, 1986,  
1987, 1988  
*Professor of Geology, Emeritus; Visiting Professor of Geology*
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- CHARLES RICHARD LAKIN, M.L.S. (U.S. Naval Academy, Iowa), 1985-  
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- SCOTT W. LAUGHINGHOUSE, M.A. (Middlebury, Edinboro [Pa.]), 1986-  
*Adjunct Instructor in Physical Education*
- WILLIAM A. LEE, J.D.<sup>7</sup> (Florida), February-May 1987  
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- GARRY MARTIN LEONARD, Ph.D. (Brown, Florida), 1985-88  
*Visiting Assistant Professor of English*
- LEWIS FREDERICK LESTER, Ph.D. (City University of New York, Connecticut),  
1970-88  
*Associate Professor of Psychology*
- CAROL BAKER LIBBY, Ph.D. (Pennsylvania State), 1985-86, 1987-  
*Assistant Professor of Chemistry*

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RICHARD DANIEL LIBBY '68, Ph.D. (Colby, Pennsylvania State), 1985-  
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MARGRIT LICHTERFELD, M.A. (Harvard), 1985-  
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L. SANDY MAISEL, M.A. '83, Ph.D. (Harvard, Columbia), 1971-  
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FRED BAKER MOSELEY, Ph.D.<sup>6</sup> (Stanford, Massachusetts at Amherst), 1982-  
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*Associate Professor of History*

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KEVIN E. NAUGHTON, B.A. (Middlebury), 1986-  
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*Instructor in Modern Languages (Spanish)*

CARL E. NELSON, M.Ed. (Boston University, Maine), November 1967-  
*Adjunct Associate Professor of Physical Education; Director of Health Services*

RANDY ALAN NELSON, Ph.D. (Northern Illinois, Illinois), 1987-  
*Associate Professor of Economics and of Administrative Science*

ROBERT EDWARD NELSON, Ph.D. ( San Francisco State, University of Washington),  
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*Associate Professor of Geology*

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*Associate Professor of Mathematics*

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Cambridge [England], Hawaii), 1988-  
*Fulbright Scholar-in-Residence, Visiting Professor of Philosophy and Religion*

TAMAE KOBAYASHI PRINDLE, Ph.D. (S.U.N.Y. at Binghamton, Washington State,  
Cornell), 1985-  
*Dana Faculty Fellow and Assistant Professor of East Asian Studies (Japanese  
Language and Literature)*

HARALD PRINS, Ph.D. (Catholic University [The Netherlands], New School for  
Social Research), 1988-  
*Visiting Assistant Professor of Sociology and Anthropology*



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*Faculty Member without Rank: Reference Librarian*
- VIVIAN KURTH PYLE, M.A.<sup>7</sup> (Princeton, California at Berkeley), 1985-88  
*Visiting Instructor in Modern Languages (Russian)*
- PATRICIA RAMSEY, Ed.D. (Middlebury, California State, Massachusetts at Amherst), 1988-  
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- HAROLD BRADFORD RAYMOND, M.A. '68, Ph.D.<sup>7</sup> (Black Mountain, Harvard), 1952-  
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*Visiting Assistant Professor of Art*
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*Associate Professor of Administrative Science*
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*Associate Professor of Economics*
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*Visiting Instructor in Art*
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- DOROTHY SWAN REUMAN, M.A.<sup>7</sup> (Wooster, Wisconsin), 1961-64, 1966-  
*Associate Professor of Music*
- ROBERT EVERETT REUMAN, M.A. '69, Ph.D. (Middlebury, Pennsylvania), 1956-  
*Dana Professor of Philosophy*
- ROSS ANTHONY REYNOLDS, Ph.D.<sup>2</sup> (Michigan State, Oregon), 1983-  
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- JOHN RICE, Ph.D. (Howard, California at Berkeley), 1988-  
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*Professor of Psychology*
- LORNA ROOKS-HUGHES, M.A. (McGill, University College in Dublin), 1985-88  
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- SONYA ORLEANS ROSE, Ph.D. (Antioch, Northwestern), 1977-  
*Associate Professor of Sociology*
- JONAS OETTINGER ROSENTHAL, M.A. '83, M.A.<sup>10</sup> (Swarthmore, North Carolina), 1957-  
*Professor of Sociology*
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ERNEST WILLIAM SAUNDERS, Ph.D.<sup>7</sup> (Boston University, Duke), 1987-88  
*Visiting Assistant Professor of Philosophy and Religion*

HEIDI JON SCHMIDT, M.F.A. (Bennington, Iowa), 1987-88  
*Visiting Assistant Professor of English*

WAYNE SCHNEIDER, Ph.D. (Colorado, Harvard, Cornell), 1986-88  
*Assistant Professor of Music*

JANICE ARMO SEITZINGER, M.A. (New York at Stony Brook, Boston College), 1974-  
*Faculty Member without Rank: Dean of Students*

JAVIER COCA SENADE, M.A. (University of Salamanca [Spain]), 1988-  
*Visiting Instructor in Modern Languages [Spanish]*

DAVID AKE SENSABAUGH, Ph.D. (Stanford, Princeton), 1987-  
*Visiting Instructor in Art*

RICHARD CRITTENDEN SEWELL, M.A. , 1974-  
*Adjunct Associate Professor of Performing Arts; Director of Powder and Wig*

CHOUDHURY M. SHAMIM, Ph.D. (Dacca [Bangladesh], Carleton University  
[Canada], University of Alberta [Canada], Southern California), 1988-  
*Visiting Assistant Professor of Government*

THOMAS WAYNE SHATTUCK, Ph.D. (Lake Forest, California at Berkeley), 1976-  
*Associate Professor of Chemistry*

CHRISTOPHER SHIELDS, Ph.D. (Brasenose College [Oxford], Bowling Green, Cornell),  
1986-88  
*Assistant Professor of Philosophy*

DAVID LAWRENCE SIMON, M.A. '88, Ph.D.<sup>2</sup> (Boston University, London), 1981-  
*Jetté Professor of Art*

SONIA CHALIF SIMON, Ph.D.<sup>2,7</sup> (Boston University), 1982-  
*Assistant Professor of Art*

NIKKY-GUNINDER KAUR SINGH, Ph.D. (Wellesley, Pennsylvania, Temple), 1986-  
*Assistant Professor of Philosophy*

DALE JOHN SKRIEN, Ph.D. <sup>2</sup> (Saint Olaf, Washington), 1980-  
*Associate Professor of Mathematics*

DONALD BRIDGHAM SMALL, Ph.D. (Middlebury, Kansas, Connecticut), 1968-  
*Associate Professor of Mathematics*

EARL HAROLD SMITH, B.A. (Maine), 1962-  
*Associate Professor; Dean of the College*

WAYNE LEE SMITH, M.A. '83, Ph.D. (Hartwick, Pennsylvania State), 1967-  
*Professor of Chemistry*

LEANNE H. STAR, M.A.<sup>7</sup> (California at Berkeley, Chicago), 1978-80, 1981-83, 1984-  
86, 1987-88  
*Visiting Instructor in English*

MICHAEL STAUB, Ph.D. (Hampshire College, Brown), 1988-  
*Visiting Assistant Professor of English*

SUSAN B. STERLING, Ph.D.<sup>7</sup> (Wellesley, California at Berkeley), 1987-88  
*Visiting Assistant Professor of English*

JOHN ROBERT SWENEY, M.A. '82, Ph.D.<sup>6</sup> (Colorado College, Claremont, Wisconsin),  
1967-  
*Professor of English*

LINDA TATELBAUM, Ph.D.<sup>6,7</sup> (Cornell), 1982-  
*Assistant Professor of English*

JAMES CAMPBELL THURSTON, M.F.A. (Ohio Wesleyan, Northwestern), 1988-  
*Adjunct Assistant Professor of Performing Arts*

THOMAS HARRY TIETENBERG, M.A. '84, Ph.D. (U.S.A.F. Academy, University of the  
East in the Philippines, Wisconsin), 1977-  
*Professor of Economics*

ELIZABETH TIPPER, B.A.<sup>7</sup> (Wellesley, Cornell, Elmira), 1988-  
*Visiting Instructor in Administrative Science*

BRUCE TERRILL VERMEULEN, M.A. (Harvard, California at Berkeley), 1983-  
*Visiting Instructor in Economics; Associate Dean of Faculty, 1986-*

HENRY JOHN WALKER, M.A. (Trinity College [Dublin], Cornell), 1987-  
*Visiting Instructor in Classics*

ALISON WEBB '81, M.A.<sup>7</sup> (Colby, Umea Universitet [Sweden], Wisconsin, Johns  
Hopkins), 1988-  
*Visiting Instructor in Economics*

JAMES L. A. WEBB, JR., Ph.D. (Johns Hopkins), 1987-  
*Visiting Assistant Professor of History*

ROBERT STEPHEN WEISBROT, Ph.D. (Brandeis, Harvard), 1980-  
*Associate Professor of History*

DACE WEISS, M.A.<sup>1,7</sup> (Toronto), 1981-  
*Instructor in Modern Languages (French)*

JONATHAN MARK WEISS, M.A. '86, Ph.D. (Columbia, Yale), 1972-  
*Professor of Modern Languages (French)*

GUENTER WEISSBERG, M.A. '70, J.D., Ph.D.<sup>7</sup> (New York University, Columbia Law,  
Columbia), 1965-1989  
*Professor of Government*

CHRISTINE M. WENTZEL, M.A.<sup>3</sup> (Massachusetts, Michigan), 1973-  
*Adjunct Associate Professor of Performing Arts (Dance)*

## 202 FACULTY

GINA S. WERFEL, M.F.A. (Kirkland, Columbia), 1980-  
*Associate Professor of Art*

JAMES BENJAMIN WESCOTT, M.S. (Plymouth State, Indiana), 1978-  
*Adjunct Associate Professor of Physical Education*

PETER WESTERVELT, M.A. '78, Ph.D.<sup>10</sup> (Harvard), 1961-  
*Professor of Classics*

RICHARD LATHAM WHITMORE, JR., M.Ed. (Bowdoin, Maine), 1970-  
*Adjunct Associate Professor of Physical Education and Director of Athletics 1987-*

BLAKE WILSON, Ph.D. (California at Berkeley, Indiana), 1988-  
*Visiting Assistant Professor of Music*

LINDSAY B. WILSON, Ph.D.<sup>2</sup> (Wesleyan, Stanford), 1985-  
*Assistant Professor of History*

JOYLYNN WING, Ph.D. (San Francisco State, Stanford), 1988-  
*Assistant Professor of Performing Arts and English*

SYLVIE CHARRON WITKIN, Ph.D. (Sorbonne, Wisconsin at Milwaukee, Wisconsin at  
Madison), 1987-  
*Visiting Assistant Professor of Modern Languages (French)*

STEPHEN RICHARD WOODY, M.F.A. (California State, Yale), 1976-88  
*Adjunct Associate Professor; Technical Director for Performing Arts*

EDWARD HARRY YETERIAN, Ph.D. (Trinity, Connecticut), 1978-  
*Associate Professor of Psychology*

PATRICIA A. YOUNG, Ph.D. (Southern Illinois, Bowling Green State), 1987-88  
*Visiting Assistant Professor of English*

PAUL HASKELL ZERNICKE, M.A. (Wisconsin at Madison), 1987-88  
*Visiting Instructor in Government*

GLENN DORIN ZOHNER, Ph.D.<sup>1</sup> (Brigham Young, Massachusetts), 1963-66, 1969-  
*Associate Professor of Psychology*

<sup>1</sup>On leave full year 1987-88

<sup>2</sup>On leave full year 1988-89

<sup>3</sup>On leave first semester 1987-88

<sup>4</sup>On leave first semester 1988-89

<sup>5</sup>On leave second semester 1987-88

<sup>6</sup>On leave second semester 1988-89

<sup>7</sup>Part-time.

<sup>8</sup>Professors Bernard and Hunter share a joint appointment.

<sup>9</sup>Professors Dianne and Ira Sadoff share a joint appointment.

<sup>10</sup>On medical leave.

<sup>11</sup>Died September 3, 1987.

## Applied Music Associates

MARYJO CARLSEN, B.A., B.Mus. (University of Washington)  
*Violin; Concertmistress*

JUDITH CORNELL, B.A. (California at Santa Barbara)  
*Voice*

NORMAN THOMAS DAVID, M.M. (McGill, N.E. Conservatory of Music), 1987-  
*Director of Band Activities*

CARL DIMOW, B.M. (University of Southern Maine)  
*Guitar*

MARK LEIGHTON, M.A. (New England Conservatory)  
*Classical Guitar*

JEAN ROSENBLUM, B.A. (Oberlin)  
*Flute*

WILLIAM WALLACE, B.M. (Oberlin)  
*Piano*

## Marshals

YVONNE RICHMOND KNIGHT, M.B.A.  
*College Marshal*

YEAGER HUDSON, Ph.D.  
JANE MERYL MOSS, Ph.D.  
THOMAS WAYNE SHATTUCK, Ph.D.  
*Assistant College Marshals*

STANLEY A. NICHOLSON, Ph.D.  
*Platform Marshal*

## Assistants and Interns

BETSY CHAMPLIN '65, M.S., 1971-  
TIMOTHY CHRISTIANSEN, B.S., 1985-  
*Assistants, Biology*

AUSTIN SEGAL, M.A., 1986-  
*Animal Care Technician, Biology*

BRENDA FEKETE, B.S., 1985-87  
KELLY ANNE PERKINS, B.S., 1986-88  
JEAN MCINTYRE, B.A., 1976-  
*Assistants, Chemistry*

BRUCE RUEGER, M.S., 1984-  
*Assistant, Geology*

PAUL CHUNKO, 1984  
*Instrument Maintenance Technician*

LI SHOUJING, 1988-89  
*Language Assistant, Chinese*

BRITTA MULLER, 1988-89  
*Language Assistant, German*

ROSA ANCIN, 1987-88  
MIGUEL CABANAS, 1988-89  
*Language Assistants, Spanish*

## 204 FACULTY

AARON PICKERING '85, 1988-  
STEVEN SHAPIRO '86, 1986-88  
*Assistant, Physics*

SUSAN KAPLAN '87, 1987-  
*Assistant, Psychology*

MAURA DAIGLE '88, 1988-89  
STEVEN RUNGE '87, 1987-88  
*Interns, Writing Center*

## College Committees

The president of the College and the dean of faculty are members *ex officio* of all committees of the College. Most of these committees are comprised of faculty, students, and administrators.

### Administrative

#### Admissions

International Student Admissions

#### Appeals Board

#### Athletics

#### Bookstore

#### Computer

#### Educational Policy

Foreign Study Council

Course Approval

#### Faculty Course Evaluation

#### Financial Aid

#### Financial Priorities

#### Independent Study

#### Library

#### Student Affairs

## Faculty Committees

### Advisory Committee on Faculty Personnel Policies

### Grievance

### Hearing Committee for Dismissal Proceedings

### Nominating

### Promotion and Tenure

### Remembrance

### Research, Travel, and Sabbatical Leaves

### Standing

## Other Committees or Councils

### Advisory Committee on Foreign Student Admissions

### Advisory Committee on Investment Responsibility

### Advisory Committee on the Use of Animal Subjects in Research

### Advisory Committee on the Use of Human Subjects in Research

### Affirmative Action Committee

### Bunche Scholars Committee

### Committee to Fund Students' Special Projects

Humanities Grants Committee  
Social Sciences Grants Committee  
Natural Sciences Grants Committee  
Health Care Advisory Committee  
Intercultural Affairs Committee  
Interdisciplinary Studies Council  
Lipman Lecture Committee  
Professional Preparation, Law and Government Service  
Professional Preparation, Health Professions  
Sloan Steering Committee

# Administration 1988-89

- President*, WILLIAM R. COTTER, M.A. '79, L.H.D., J.D., 1979-  
*Administrative Assistant to the President*, CAROL A. WELCH, B.S., 1973-  
*Corporate Secretary*, SIDNEY W. FARR '55, M.A., M.B.A., 1960-
- Vice President for Academic Affairs and Dean of Faculty*, ROBERT P. MCARTHUR, Ph.D., 1972-  
*Associate Dean of Faculty*, BRUCE T. VERMEULEN, M.A., 1983-  
*Administrative Assistant*, LILLIAN LEVESQUE, 1978-  
*Registrar*, GEORGE L. COLEMAN II, M.A., 1963-  
*Director of the Colby Libraries*, SUANNE W. MUEHLNER, M.L.S., M.B.A., 1981-  
*Assistant Director for Public Services*, FRANCES M. PARKER, M.L.S., 1974-  
*Audiovisual Librarian*, SAMUEL L. ATMORE, M.S., 1977-  
*Reference Librarian*, TONI D. KATZ, M.S. 1983-  
*Reference Librarian*, CHARLES R. LAKIN, M.L.S., 1985-  
*Reference Librarian*, JOHN R. LIKINS, M.L.S., 1984-  
*Reference Librarian*, MARILYN R. PUKKILA, M.S.L.S., M.A., 1984-  
*Head Cataloguer*, CATHERINE H. COCKS, M.A.L.S., 1980-  
*Special Collections Librarian*, J. FRASER COCKS III, Ph.D., 1975-  
*Science Librarian*, SUSAN W. COLE, M.S., 1978-  
*Director of the Museum of Art*, HUGH J. GOURLEY III, A.B., 1966-  
*Administrative Assistant*, DENISE M. DONAHUE '82, B.A., 1986-
- Administrative Vice President*, STANLEY A. NICHOLSON, Ph.D., 1981-  
*Administrative Assistant*, LILLIAN LEVESQUE, 1978-  
*Director of Personnel Services*, ROBERT E. KEANE, M.P.A., 1985-  
*Assistant Director of Personnel Services*, DOUGLAS C. TERP '84, B.A., 1987-  
*Treasurer*, DOUGLAS E. REINHARDT '71, M.B.A., 1972-  
*Administrative Assistant to the Treasurer*, PAMELA LEO, 1981-  
*Controller*, ROBERT ST. PIERRE, M.B.A., 1985-  
*Assistant Controller*, CYNTHIA WELLS '83, B.A., 1983-  
*Director of Administrative Services*, KENNETH T. GAGNON, B.A., 1981-  
*Bookstore Manager*, BRUCE K. BARNARD, M.Ed., 1987-  
*Assistant Manager*, DIANE GAGNON, 1979-  
*Operations Assistant*, WILLIAM U. POTTLE, 1980-  
*Director of Computer Services*, RAYMOND B. PHILLIPS, Ph.D., 1984-  
*Systems Programmer*, DAVID W. COOLEY, M.Div., 1978-  
*Associate Director of Computing Services*, JUDITH B. JUDKINS, B.A., 1978-  
*Application Programmer*, JOHN R. DONAHUE, B.A., 1982-  
*Coordinator of Academic Computing*,  
*Systems Analyst*, ELIZABETH S. HALLSTROM, M.F.A., 1987-  
*Systems Analyst*, JOSEPH M. MEDINA, B.A., 1987-  
*Central Computing Statistics Consultant*, GRETA JI, M.A., 1988-  
*Director of Dining Services*, DANIEL J. EUSEBIO, B.S., 1985-  
*Food Service Managers:*  
*Chaplin Commons*, ANTHONY RUSSO  
*Johnson Commons*, RICHARD FALZONE  
*Lovejoy Commons*,  
*Mary Low Commons*, LISA DiNITTO



*Spa*, KEITH GILES

*Catering Manager*, MARY ATTENWEILER

*Director of Division of Special Programs*, ROBERT H. KANY, Ph.D., 1969-  
*Associate Director, Division of Special Programs*, JOAN SANZENBACHER,  
M.S.Ed., 1978-

*Director of Physical Plant*, ALAN D. LEWIS, B.S., 1984-

*Associate Director of Physical Plant*, GORDON E. CHEESMAN, B.S., 1987-

*Custodial Services Supervisor*, ARTHUR SAWTELLE, B.A., 1976-

*Assistant Custodial Services Supervisor*, LINDA POWELL, 1976-

*Assistant Custodial Services Supervisor*, ROBERT ROUX, 1980-

*Supervisor, Building Maintenance*, LEE SPALDING, 1976

*Supervisor, Heating and Ventilation*, WILLIAM ALLEY, B.S., 1982-

*Supervisor, Grounds and Moving*, KEITH STOCKFORD, A.A.S., 1982-

*Supervisor of Special Projects*, PATRICK MULLEN, 1980-

*Vice President for Development and Alumni Relations*, PEYTON R. HELM, Ph.D.,  
1988-

*Alumni Secretary*, SIDNEY W. FARR '55, M.A., M.B.A., 1960-

*Director of Records and Support Services*, MARY C. ROY, 1968-

*Director of Planned Giving*, DAVID L. ROBERTS '55, M.S., 1977-

*Director of Alumni Relations*, SUSAN F. COOK '75, B.A., 1981-

*Assistant Director of Alumni Relations*, JEFFREY RUSSELL '87, B.A., 1987-

*Director of Annual Giving*, PAMELA ALEXANDER, B.A., 1981-

*Assistant Director of Annual Giving*, BARBARA A. LEONARD '83, B.A., 1984-

*Director of Leadership Programs*, ERIC F. ROLFSON '73, M.A., 1982-

*Research Specialist*, BARBARA GUNVALDSEN, M.B.A., 1988-

*Director of Corporate and Foundation Relations*, EDWARD C. DAY, A.B., 1985-

*Development Assistant*, DAVID R. BEERS '85, B.A., 1987-

*Assistant in Leadership Programs*, J. MATTHEW HARTLEY '86, 1987-

*Dean of Admissions and Financial Aid*, PARKER J. BEVERAGE, M.A., 1985-

*Associate Dean of Admissions*, JUDITH L. BRODY, B.A., 1979-

*Associate Dean of Admissions*, THOMAS W. KOPP, M.A., 1978-

*Associate Dean of Admissions*, RONALD G. WHITTLE, M.A., 1986-

*Assistant Dean of Admissions*, GRETCHEN R. BEAN '85, B.A., 1985-

*Assistant Dean of Admissions*, DARRYL SCOTT '82, B.A., 1986-

*Assistant to the Dean of Admissions*, JENNIFER A. RUBIN '87, B.A., 1987-

*Assistant to the Dean of Admissions*, DAVID S. JONES, B.A., 1987-

*Assistant to the Dean of Admissions*, NANCY MORRIONE '65, M.Ed., 1982-

*Director of Financial Aid*, LUCIA W. SMYTH '73, B.A., 1986-

*Associate Director of Financial Aid*, LISA J. BUBAR '73, B.A., 1985-

*Dean of the College*, EARL H. SMITH, B.A., 1962-

*Assistant to the Dean of the College*, MARY ANN EUSEBIO, B.S., 1986-

*Chaplains:*

*Catholic*, FATHER JOHN SKEHAN, M.Div., 1986-

*Jewish*, RABBI RAYMOND KRINSKY, M.H.L., 1984-

*Protestant*, RONALD E. MORRELL, 1984-

*Director of Career Services*, JAMES MCINTYRE, Ph.D., 1976-

*Associate Director of Career Services*, PATRICIA N. HOPPERSTEAD, M.A., 1987-

*Assistant Director of Career Services*, CATE T. ASHTON '80, M.A., 1987-

*Alumni Liaison*, LINDA K. COTTER, M.Ed., 1982-

*Dean of Students*, JANICE A. SEITZINGER, M.A., 1974-

*Director of the Student Center and Student Activities*, JOHN FARKAS, M.Ed., 1986-

*Director of Public Safety*, MARK VAN VALKENBURGH, M.Ed., 1988-

*Associate Dean of Students*, JOYCE H. MCPHETRES MAISEL, M.A., 1981-

*Assistant Dean of Students*, PAUL E. JOHNSTON, B.A., 1982-

*Assistant to the Dean of Students*, SARAH SWAGER, M.A., 1987-

*Assistant Director of the Commons*, GINA M. TOMAN, M.S., 1988-

*Associate Dean of Students*, MARK R. SERDJENIAN '73, B.A., 1982-

*Tutor and Study Counselor*, ELIZABETH TODRANK, M.Ed., 1961-

*Associate Dean of Students for Intercultural Activities*, EDWARD M. BLACKWELL, B.A., 1986-

*Director of Public Affairs*, EDWARD HERSHEY, B.A., 1987-

*Assistant Director of Public Affairs*, CATHERINE ANDERSON, Ph.D., 1985-

*Public Affairs Writer*, CHARLES BRITTON, B.A., 1987-

*Director of Publications*, BONNIE BISHOP, B.S., 1984-

*Production Coordinator*, NORA L. CAMERON, B.A., 1983-

*Production Editor*, MARTHA SHATTUCK, B.A., 1973-

*College Editor*, ROBERT A. GILLESPIE, Ph.D., 1971-77, 1982-

*Assistant to the Editor*, NANCY F. WESTERVELT '54, B.A., 1986-

*College Physician*, WILLIAM E. BENNETT, M.D., 1986-

*Director of Health Services*, CARL E. NELSON, M.Ed., R.P.T.-A.T.C., 1959-

*Psychotherapist*, JANET IRGANG, M.S.W., 1980-

*Clinical Psychologist*, DANIEL A. HUGHES, Ph.D., 1985-

*Health Associate*, ANN H. NORSWORTHY, P.A.-C., B.S., 1982-

*Physician's Assistant*, JIMMIE J. WOODLEE, B.S., 1988-

*Head Nurse*, PRISCILLA SARGENT, R.N., 1969-

*Assistant Trainer*, TIMOTHY J. ADAMS, R.P.T., A.T.C., B.S., 1980-

*Assistant Trainer*, NANCY L. LELAND '81, A.T.C.-B.A., 1981-

# Enrollment by States and Countries

Classified according to geographical locations of students' homes 1987-88.

	<i>Men</i>	<i>Women</i>	<i>Total</i>		<i>Men</i>	<i>Women</i>	<i>Total</i>
<b>All Areas</b>	876	829	1705	Ohio	19	19	38
<b>New England</b>	547	565	1112	Oregon	1	2	3
Connecticut	75	78	153	Pennsylvania	30	31	61
Maine	107	125	232	Puerto Rico	0	1	1
Massachusetts	280	295	575	Tennessee	2	1	3
New Hampshire	39	28	67	Texas	5	3	8
Rhode Island	31	23	54	Utah	2	0	2
Vermont	15	16	31	Virgin Islands	0	1	1
<b>Outside</b>				Virginia	9	8	17
<b>New England</b>	302	254	556	Washington	3	5	8
Alaska	1	2	3	West Virginia	0	2	2
Arizona	2	2	4	Wisconsin	1	2	3
Arkansas	1	0	1	<b>Foreign</b>			
California	21	19	40	<b>Countries</b>	27	10	37
Colorado	8	6	14	Canada	*9	*1	10
Delaware	3	3	6	England	*1	0	1
District of				Finland	1	0	1
Columbia	5	5	10	France	*2	3	5
Florida	6	5	11	India	1	2	3
Georgia	4	4	8	Japan	**2	1	3
Hawaii	0	1	1	Malaysia	2	0	2
Idaho	0	1	1	Nepal	2	0	2
Illinois	16	12	28	Norway	1	0	1
Indiana	2	2	4	Pakistan	1	1	2
Iowa	1	1	2	Peru	0	*1	1
Kansas	1	1	2	Philippines	1	0	1
Kentucky	3	2	5	Portugal	0	1	1
Louisiana	0	3	3	South Africa	1	0	1
Maryland	12	14	26	Spain	1	0	1
Michigan	8	5	13	Tanzania	1	0	1
Minnesota	4	6	10	Turkey	1	0	1
Mississippi	1	0	1				
Missouri	5	4	9				
Montana	1	1	2				
Nebraska	0	1	1				
New Jersey	46	33	79				
New Mexico	1	0	1				
New York	76	45	121				
North Carolina	2	1	3				

Each \* denotes one American citizen.

# Degrees Awarded at Commencement Sunday, May 29, 1988

## Bachelor of Arts

Zachary Franklin Abrams, *Weston, Conn.*

Keith M. Adams, *Marshfield, Mass.*

Karen Lee Adler, *Bar Harbor, Me.*

RolandLeo Louis Albert, *Saltillo, Covila,  
Mexico*

Paige Marie Alexander, *Waterville, Me.*

Jennifer Jean Allen, *Dover, Mass.*

Terry R. Allen, Jr., *Thomasville, Ga.*

Ayme Ann Allison, *West Hartford, Conn.*

Susan Elizabeth Allison, *Wellesley, Mass.*

Tasha Marie Allyn, *Skaneateles, N.Y.*

Susan Maria Amendolare, *Quincy, Mass.*

Stephen Eric Ananian, *Atkinson, N.H.*

Laurel Jeanne Anderson, *Washington, D.C.*

Richard Edward Angeli, Jr., *Warwick, R.I.*

Ann Maynard Armstrong, *West Chester, Pa.*

James L. Arsenaault, *Greenland, N.H.*

Andrea Paule Auerbach, *New York, N.Y.*

Michael Lindsay Ayers, *Bethesda, Md.*

Gregory Ayotte, *Sharon, Mass.*

James Scott Bachand, *East Greenwich, R.I.*

William P. Baerg, *Costa Mesa, Calif.*

Jeffrey John Ballaine, *Bainbridge Island,  
Wash.*

Edward E. Barr, *Englewood, N.J.*

Leah Don Basbanes, *Dunstable, Mass.*

Carol Anne Beach, *Columbus, Ohio*

Deedra Lynn Beal, *Brewer, Me.*

Dana Robert Beale, *Wellesley, Mass.*

Margaret Elizabeth Beier, *Minneapolis,  
Minn.*

Thomas Stoughton Bell, Jr., *Groton, Mass.*

Vanessa Theresa Bell, *Topsfield, Mass.*

George Phelps Mellick Belshaw, Jr., *Princeton,  
N.J.*

Joseph Bernard Bisson, *Winsted, Conn.*

Todd Turner Blake, *South Windsor, Conn.*

Kathleen Elizabeth Bradley, *North Andover,  
Mass.*

James Michael Brandt, *Stoneham, Mass.*

David Kennedy Brooks, *Katonah, N.Y.*

Christopher Franklin Brown, *Winchester,  
Mass.*

Melissa Whitney Brown, *Dover, Mass.*

Robert Stephen Brown, *Cresskill, N.J.*

Jeffrey Garside Bruce, *West Newton, Mass.*

Rebecca Anne Bruce, *Philadelphia, Pa.*

Michael Paul Bukowski, *Lewisboro, N.Y.*

Scott Lee Bunker, *North Conway, N.H.*

Deborah Ellen Burke, *Bloomington, Ind.*

Michael Alan Burr, *Beverly, Mass.*

Marc C. Cadieux, *Hingham, Mass.*

Richard F. Calichman, *Huntington Station,  
N.Y.*

Paul Joseph Carmillo, Jr., *Norwell, Mass.*

Vickie Ann Caron, *Fort Kent, Me.*

Mary Jane Carty, *Attleboro, Mass.*

David M. D. Caspar, *Brookline, Mass.*

Randolph Catlin III, *Medfield, Mass.*

Courtney Ann Celi, *Concord, Mass.*

Thomas Frederick Charlton, *Chester, Vt.*

Monika Liv Chas, *Woodcliff Lake, N.J.*

Cheah Ban Chuan, *Penang, Malaysia*

Michelle Cheeseman, *Cromwell, Conn.*

Roland Douglas Cheyney, *Bloomfield,  
Conn.*

Gregory G. Chronis, *Scottsdale, Ariz.*

Joshua H. B. Chudnoff, *New York, N.Y.*

Patricia M. Cirigliano, *Waccabuc, N.Y.*

Richard Brannan Claytor, *Radnor, Pa.*

Patrick Thomas Clendenen, *New Haven,  
Conn.*

Catherine M. Cohen, *Brookline, Mass.*

Jeffrey Douglas Cohen, *Framingham, Mass.*

Nina Robbins Colhoun, *Garrison, Md.*

Lisa Anne Collett, *Houlton, Me.*

Sean Christopher Collins, *Weston, Mass.*

Kristin Comeau, *South Weymouth, Mass.*

Brian Norton Connors, *Wellesley, Mass.*

Daniel Emmett Conway, *Concord, Mass.*

Deanna Frances Cook, *Woodstock, Vt.*

Sydney Forman Cook, *Hingham, Mass.*

Jessica Atherton Corkum, *Newburyport, Mass.*

Bryan Andrew Costello, *New Concord, Ohio*

Jemma Lindsey Craig, *Plymouth, N.H.*

Charles Wesley Crain II, *Madison, Conn.*

Henry Hays Crimmel III, *Canton, N.Y.*

Karen Elisabeth Croff, *Darien, Conn.*

Richard B. Crook, *South Weymouth, Mass.*

David Alan Crowell, *Houston, Tex.*

Deborah Jean Crowell, *Wilmington, Del.*

Gregory M. Cunningham, *Jaffrey Center, N.H.*

Maura Alice Smith Daigle, *Skowhegan, Me.*

Kirsten Dalton, *Concord, Mass.*

Geoffrey David Dapice, *South Burlington, Vt.*

John Williams Davie, *Albuquerque, N.M.*

Megan Elizabeth Davis, *Lexington, Mass.*

Denise Marie Dearborn, *Weirs Beach, N.H.*

Daniel F. Del Duca, *Wilmington, Del.*

Michael Joseph DeMattia, *North Haledon, N.J.*

Rebecca Demchak, *Clinton, Conn.*

Jean S. DeNapoli, *Southboro, Mass.*

John Motley Morehead de Rham, *Farmington, Conn.*

William Joseph Derry, *Winchester, Mass.*

Medha Hemant Devare, *Bombay, India*

Sara Elizabeth Dickison, *Nashua, N.H.*

Christine Marie Dixon, *Winchester, Mass.*

Bevin F. Dockray, *Brookline, Mass.*

Sarah J. Doherty, *Lexington, Mass.*

James E. Donahue, *Cranston, R.I.*

Nancy Donahue, *Chelmsford, Mass.*

Gary Alan Donaldson, Jr., *North Windham, Me.*

Darrin Anthony Donato, *North Adams, Mass.*

Kevin Michael Donovan, *Newburyport, Mass.*

Colleen Marie Doyle, *Rockland, Mass.*

David J. Duane, *Weymouth, Mass.*

Noshir Behli Dubash, *Karachi, Pakistan*

Jocelyn Sue Dyett, *West Newton, Mass.*

Jeffrey Albert Dym, *Washington, D.C.*

Jonathan H. Earl, *Upper Montclair, N.J.*

Mary Katherine Eickhoff, *Longmeadow, Mass.*

Matthew Taylor Elders, *Darien, Conn.*

Kimberley Ellis, *Wakefield, Mass.*

Jeffrey T. Emerson, *Brattleboro, Vt.*

Allyn D. Emery, *Palos Verdes Estates, Calif.*

Richard Walter Evans, *Wilmot, N.H.*

Gilbert Bryan Falcone, *Princeton, N.J.*

David Jeffery Farley, *Providence, R.I.*

Anthony B. Fazzino, *Roxbury, Conn.*

Mary Adele Federle, *Waterville, Me.*

Kerri Lynne Feifert, *Warwick, R.I.*

Lyn Ann Fernandes, *Lakeville, Mass.*

C. Thomas Ferris, *Kingfield, Me.*

Ann M. Fillback, *North Andover, Mass.*

Julie Ann Fitzgerald, *Bath, Me.*

Michael John Fleming, *Waban, Mass.*

Jonathan W. Foote, *Glastonbury, Conn.*

Christopher King Forbes, *Wellesley, Mass.*

Joan Marie Fortin, *Benton, Me.*

Kristen Ann Foss, *Berwick, Me.*

Margaret Scott Foster, *South Portland, Me.*

Lauren Lee Frazza, *Mendham, N.J.*

Margaret Clark Galloway, *Potomac, Md.*

Jennifer Starr Gaylord, *Pound Ridge, N.Y.*

Christopher J. Geiger, *Kennebunk, Me.*

Kirsten Houldin Geiger, *New York, N.Y.*

Deborah A. Gentile, *Kennebunk, Me.*

Mark E. Giancola, *Stamford, Conn.*

Demetra Giatas, *Bridgton, Me.*

Christine P. Gilman, *The Woodlands, Tex.*

Kenneth Fuller Ginder, *Bedford, Mass.*

Margot E. Glockler, *Belle Mead, N.J.*

Jeffrey Scott Glover, *Birmingham, Mich.*

Joshua Marcus Goldberg, *Newton, Mass.*

Stephen L. Goldman, *Newton, Mass.*

John Joseph Goslin, Jr., *Kingston, Mass.*

Michael Perkins Graf, *Greenland, N.H.*

Eric Anthony Green, *Montclair, N.J.*

Kerry A. Griffin, *Norwell, Mass.*

Jayne Kara Grossman, *Needham, Mass.*

Whitney Makepeace Gustin, *Lynnfield, Mass.*

Patricia Marie Haffey, *Duxbury, Mass.*

Thomas Arthur Hagerty, *Portland, Me.*

Susan Warner Hallawell, *Marblehead, Mass.*

Hansi Kirsten Hals, *Lexington, Mass.*

Gretchen Eileen Halunen, *Yarmouthport, Mass.*

John Arthur Hamlin, *Fairfield, Me.*

Benjamin K. Hankinson, *Princeton, N.J.*

Lisa J. Hathaway, *Yarmouth, Me.*

Lorin Korell Haughs, *Greenwich, Conn.*

Jane Ann Hayden, *Gorham, Me.*

John Nolan Haynes, *Miami, Fla.*

- Kären Heilman, *Pittsburgh, Pa.*  
 Vanessa G. Hemsley, *New Bedford, Mass.*  
 Taylor Blackburn Henderson, *Easton, Conn.*  
 Beth Ann Henry, *Andover, Mass.*  
 Paul Alan Henry, *Leesburg, Ohio*  
 Karen Elizabeth Hentz, *Chelmsford, Mass.*  
 Jill Elizabeth Heslam, *Ashby, Mass.*  
 Paul E. Hesterberg, *Westboro, Mass.*  
 Thomas J. Hiemstra, *Larchmont, N.Y.*  
 Garret Alden Hinebauch, *Boulder, Colo.*  
 Andrea C. Hoffmann, *Tucson, Ariz.*  
 Shawn David Holt, *New York, N.Y.*  
 Cynthia Lorraine Hudson, *Princeton, N.J.*  
 Jeffrey Andrew Huebschmann, *Miami, Fla.*  
 Norman E. Hugo, *New Canaan, Conn.*  
 Christopher John Hurley, *Quincy, Mass.*  
 Heidi Ruth Irving, *Troy, Me.*  
 Emily James Isaacs, *Weston, Mass.*  
 Ronald L. Jackson, *Belfast, Me.*  
 Susan Janice Jacobson, *Warwick, R.I.*  
 Anthony R. James, *Belmont, Mass.*  
 Geoffrey Abbott James, *Palo Alto, Calif.*  
 Llewellyn Watts Jensen, *Cape Elizabeth, Me.*  
 Todd Owen Jepson, *New Sweden, Me.*  
 Thomas Clayton Jester, *Deerfield, Ill.*  
 Scott P. Johnson, *Bristol, R.I.*  
 Jon Christopher Jorgensen, *China, Me.*  
 Joyce Ann Joseph, *Waterville, Me.*  
 Amy Jo Kahn, *Marion, Conn.*  
 Heidi Marie Kampersal, *Beverly, Mass.*  
 Julie Anne Karas, *Rumford, R.I.*  
 Richard Philip Keigwin, Jr., *Marlborough, Mass.*  
 Michael James Kelley, *Hanover, N.H.*  
 Elsbeth Evans Kellogg, *Guilford, Conn.*  
 Mary Whitney Kelting, *Tenafly, N.J.*  
 Matthew Devin Kennedy, *Bedford, Mass.*  
 Melissa Suzanne Kerley, *Andover, Mass.*  
 Elizabeth Wilder Kerney, *Bethesda, Md.*  
 Kate Ellen Kfoury, *New Canaan, Conn.*  
 Cathleen Marie King, *Oakland, Me.*  
 Christine King, *Marblehead, Mass.*  
 Patricia Anne King, *Lexington, Mass.*  
 William Charles Kinney, *Moreland Hills, Ohio*  
 Donald Cameron Klein, *Missoula, Mont.*  
 Nancy Allison Knapp, *Wilmington, Del.*  
 Brenda Jane Kneuer, *South Hempstead, N.Y.*  
 Robert Charles Koff, *Bloomfield, Conn.*  
 Joann Koletsky, *Waterford, Conn.*  
 Cynthia Helen Kontulis, *Locust Valley, N.Y.*  
 Jeffrey S. Konz, *Lake Bluff, Ill.*  
 Ellen Elizabeth Krause, *Dover, Mass.*  
 Carolina A. Kroon, *Los Angeles, Calif.*  
 Kristina Kuhlmann, *Hanover, N.H.*  
 Phuong Kim Lac, *Scarborough, Me.*  
 Paul David LaFontaine, *Belmont, Mass.*  
 Joanne LaMarre, *Mansfield, Mass.*  
 Albert Joseph Languet III, *Belgrade Lakes, Me.*  
 Richard Anthony Lanzi, *Orange, Conn.*  
 Jackie Ann Lavigne, *Shapleigh, Me.*  
 Thomas P. LaVigne, Jr., *Paxton, Mass.*  
 Gregory Paul Lawless, *North Caldwell, N.J.*  
 Linda Lee, *Cranston, R.I.*  
 Cheryl Ann Lemar, *Dresden, Me.*  
 Andrew Levin, *Williamstown, Mass.*  
 Karen Sue Linde, *Weston, Mass.*  
 Susan Joan Lochhead, *Nashua, N.H.*  
 Betsy Lockhart, *Walpole, Mass.*  
 Andrew Robert Longyear, *Seattle, Wash.*  
 Charles Sumner Lord III, *Burlington, Vt.*  
 Kathleen Elizabeth Lowney, *West Newton, Mass.*  
 Amy Kathleen Lumbard, *Fairhaven, Mass.*  
 Kimberly Townsend Lynch, *Greenwich, Conn.*  
 Scott Joseph Lynch, *Fairfield, Me.*  
 Judith Elizabeth MacDonald, *Andover, Mass.*  
 Suzanne Louise MacLachlan, *Wellesley, Mass.*  
 Susan Henderson Maddock, *Trenton, N.J.*  
 Meredith Carter Magie, *Weston, Mass.*  
 Whitner Hamilton Marshall, *Cold Spring Harbor, N.Y.*  
 John Kerr Martin, *Wellesley, Mass.*  
 Joshua Gregory Marx, *Newton, Mass.*  
 Martha Kim Mason, *Attleboro, Mass.*  
 Jennifer Louise Massengill, *San Luis Obispo, Calif.*  
 Steven R. Masur, *Ogden, Utah*  
 Timothy Andrew Mathieu, *Danvers, Mass.*  
 John A. Maus, *Ridgewood, N.J.*  
 Ann Elaine McAllister, *DeLand, Fla.*  
 Ellen Colleen McCarthy, *North Marshfield, Mass.*  
 John William McCarthy, *Braintree, Mass.*  
 Anna Fox Schonleber McCaw, *Scarsdale, N.Y.*  
 Martha Ellen McClung, *Baltimore, Md.*  
 Douglas Stuart McDonald, *Darien, Conn.*

- MaryAnn McHugh, *Hopedale, Mass.*  
 Andrew James McIntosh III, *Arlington, Mass.*  
 Colleen Marie McKenna, *Wilmington, Mass.*  
 John Joseph McNinch, *Lenox, Mass.*  
 Tanya G. Mead, *Center Harbor, N.H.*  
 Laurie Anne Meehan, *Manchester, N.H.*  
 Ellen Jo Meigs, *Danville, N.H.*  
 Stacey Lynn Mendelsohn, *Northport, N.Y.*  
 Leslie J. Migliaccio, *Bristol, R.I.*  
 Ann Elizabeth Mitchell, *Kensington, Md.*  
 David E. Mitchell, *Wilbraham, Mass.*  
 Kevin Peter Molloy, *Salem, Conn.*  
 Arthur Dean Morrow, *Rye, N.H.*  
 Tracey L. Morrow, *Perrysburg, Ohio*  
 Alexandra I. Motyka, *New York, N.Y.*  
 Richard Andrew Mueller, *Carmel, Calif.*  
 Nancy Margaret Munro, *Walpole, Mass.*  
 Elizabeth Ann Murphy, *Andover, Mass.*  
 Kerri Ann Murphy, *Bedford, N.H.*  
 Allison Sarah Murray, *Easton, Mass.*  
 Robert Thomas Murray III, *St. Albans, Vt.*  
 Phoebe Nason, *Pownal, Me.*  
 Norman Fernandez Navarro, *Easton, Pa.*  
 Todd Alan Nicholson, *East Millinocket, Me.*  
 Pamela Jane Nicol, *New Canaan, Conn.*  
 Ginger Patricia Nowak, *Newcastle, Me.*  
 Roger Burton Nowak, *Barrington, R.I.*  
 Kenneth Arthur Nye, *Rumford, Me.*  
 Daniel Arthur Nyhan, *Concord, N.H.*  
 Kevin Patrick Oates, *Pearl River, N.Y.*  
 Caroline C. O'Brien, *New Canaan, Conn.*  
 Daniel P. O'Brien, *West Roxbury, Mass.*  
 Mark Charles O'Donnell, *Randolph, N.J.*  
 Carol Jean O'Hanlon, *Tucson, Ariz.*  
 Kristen Lee Olson, *Shaker Heights, Ohio*  
 Jeffrey Neal Packman, *Bethlehem, Pa.*  
 Kyriak William Pappas, *New York, N.Y.*  
 Michael Tierney Paquin, *Warwick, R.I.*  
 Nancy Elizabeth Paré, *York Beach, Me.*  
 Pamela Dabney Parker, *Duxbury, Mass.*  
 Scott Elliot Parks, *Saco, Me.*  
 Celia Girard Pastoriza, *Lincoln, Mass.*  
 Brooks C. Patterson, *Duxbury, Mass.*  
 Christopher David Hunter Patterson, *Wellesley, Mass.*  
 Keith Robert Patterson, *Cape Porpoise, Me.*  
 Melissa Mary Paul, *Manchester, N.H.*  
 Heather Lee Payson, *Hobe Sound, Fla.*  
 John Dillon Pechilis, *Weston, Mass.*  
 Donna L. Perrine, *Windsor, Conn.*  
 Dianna L. Petrusky, *Garden City, N.Y.*  
 Stephanie Pierce, *Montpelier, Vt.*  
 Michael P. Piergallini, *Worcester, Mass.*  
 Eric J Piesner, *Kings Park, N.Y.*  
 Joanne M. Pomerleau, *Norway, Me.*  
 Sarah Elizabeth Pope, *Shoreham, Vt.*  
 Leland Drummond Potter III, *Hingham, Mass.*  
 Sheryl Anne Powers, *Winchester, Mass.*  
 Scott Fitzgerald Pratt, *Farmington, Me.*  
 Lauren Susan Prescott, *Weston, Mass.*  
 Brian W. Probert, *Searsport, Me.*  
 Peter L. Quill, *Topsfield, Mass.*  
 Jonathan Lockhart Radtke, *Charlestown, Mass.*  
 William Leverett Ralph, *Marquette, Mich.*  
 David Webber Rand, *Marshfield, Mass.*  
 Amy S. Rasimas, *Grosse Pointe, Mich.*  
 Stephen B. Reade, *Washington, D.C.*  
 Vanessa Anne Reed, *Essex, Mass.*  
 William F. Reed, *Waccabuc, N.Y.*  
 Nancy Beth Reese, *Winthrop, Mass.*  
 Josephine A. Regeic, *Morristown, N.J.*  
 Karen Marie Reilly, *Wayland, Mass.*  
 Matthew James Reilly, *West Roxbury, Mass.*  
 James Brooks Richardson, *Falmouth, Me.*  
 Stewart S. Richmond, Jr., *Bedford, N.H.*  
 Harold DeWitt Rider, Jr., *Barrington, Ill.*  
 Marion Patchell Robbins, *Weston, Mass.*  
 Linda Grace Roberts, *Waterville, Me.*  
 Stefanie Allerton Rocknak, *Jefferson, Me.*  
 Kristen L. Roeder, *Sherborn, Mass.*  
 Rebecca Ann Snyder Rolfson, *Albion, Me.*  
 Andrew Bernard Roos, *Berkeley Heights, N.J.*  
 David Marc Rosen, *Wayne, N.J.*  
 Nicola S. D. Rotberg, *Lexington, Mass.*  
 Sheila Marie Rudolph, *Hanover, Mass.*  
 Melissa Ruff, *Freeport, Me.*  
 Derek Ronald Sappenfield, *McLean, Va.*  
 David Frederic Scannell, *Manchester, N.H.*  
 Margaret MacGillivray Schafer, *Mentor, Ohio*  
 Jennifer Sarah Schaffer, *Lexington, Mass.*  
 Kristin L. Scholl, *Croton-on-Hudson, N.Y.*  
 Dean Andrew Schwartz, *Glastonbury, Conn.*  
 Steven Lawrence Schwartz, *Homewood, Ill.*  
 Leonard Chapman Sciarra, *Winnetka, Ill.*  
 Anne Charlotte Scoville, *Onancock, Va.*

John Douglas Seidl, *Houston, Tex.*  
 Jonathan Selkowitz, *Pittsfield, Mass.*  
 Heidi Meyer Senkler, *Carlisle, Mass.*  
 Hilary Richardson Seward, *Beverly Farms, Mass.*  
 Kristin Gael Shea, *Marblehead, Mass.*  
 Mary S. Shepard, *Philadelphia, Pa.*  
 Nilamber Bhakta Shrestha, *Kathmandu, Nepal*  
 Patricio Silva Bakovic, *Newtonville, Mass.*  
 Alec William Sims, *Townsend, Mass.*  
 Scott Andrew Slater, *West Newton, Mass.*  
 Brian James Smith, *North Dartmouth, Mass.*  
 Laurie Anne Smith, *Wayne, Me.*  
 Martha Kingsbury Smith, *Avon, Conn.*  
 Raphaël Thomas Smith, *Taconic, Conn.*  
 Scott David Smith, *Cape Elizabeth, Me.*  
 Thomas Bertrand Snow, *Cumberland, Me.*  
 RuthAnn Solomon, *Dover, Mass.*  
 Alexander T. Spare, *Hillsborough, Calif.*  
 Jennifer Shaw Spencer, *Dorset, Vt.*  
 Scott Michael Sprague, *Pine Bluff, Ark.*  
 Elena Marie Stamoulis, *Barrington, R.I.*  
 Eileen Marcia Stark, *Peabody, Mass.*  
 Sharon Lea Stecher, *Beverly, Mass.*  
 Matthew Fairbanks Stetson, *Centerville, Del.*  
 Scott George Stratton, *Basking Ridge, N.J.*  
 Shaun P. Sullivan, *Cumberland, R.I.*  
 Andrew William Sulya, *Bucksport, Me.*  
 Mary Patricia Sutton, *Duxbury, Mass.*  
 Eric Leonard Swan, *Bloomfield, Conn.*  
 Juli K. Swanson, *Jefferson, Mass.*  
 Kristin Remol Sween, *Wilton, Me.*  
 Jill Suzanne Taylor, *Kingfield, Me.*  
 Steven N. Teplitz, *Stoughton, Mass.*  
 Robert McKean Thomas, *Doylestown, Pa.*  
 Mary Dawn Thomson, *Juneau, Alaska*  
 Lisa Jayne Tomasetti, *Littleton, Colo.*  
 Stephen Philip Tompkins III, *Marblehead, Mass.*  
 David Perot Trainer, *Gardenville, Pa.*  
 Robert Williams Travis, *Weston, Mass.*  
 Katherine Grace Trudeau, *East Bloomfield, N.Y.*  
 Edward Sean Tucker, *Wayne, N.J.*  
 Sarah Tucker, *Wakefield, Mass.*  
 Louis Samuel Uible, *St. Louis, Mo.*  
 Eric C. Vander Mel, *Spring, Tex.*  
 Lisa Kristina Vargas, *St. John, Virgin Islands*  
 Mark C. Viden, *Hingham, Mass.*

Karen Elizabeth Vlaskamp, *Montclair, N.J.*  
 Patricia Dignus Wagstaff, *Oyster Bay, N.Y.*  
 Helen Dillon Walker, *West Hartford, Conn.*  
 Katherine Waddell Walker, *New Canaan, Conn.*  
 Todd Wallingford, *Sudbury, Mass.*  
 Kirsten Warnock, *Providence, R.I.*  
 William Parkhurst Warren, *Weston, Conn.*  
 Kevin Michael Webb, *Belfast, Me.*  
 Stephen E. Webb, *Plymouth, Mass.*  
 Jon Karl Webel, *Huntington, N.Y.*  
 Craig Henderson Welch, *Waterville, Me.*  
 Suzanne Marshall Welch, *Wyomissing, Pa.*  
 Peter R. Weltchek, *New York, N.Y.*  
 Jill Amy Wertz, *Newtown, Pa.*  
 Christopher Marshall Whelan, *Riverside, Conn.*  
 John Morgan Whitacre, *Leawood, Kans.*  
 William T. Whittenberg, Jr., *Delray Beach, Fla.*  
 Peter Wilde, *Swansea, Mass.*  
 David J. Wilson, *East Greenwich, R.I.*  
 Pamela Anne Winch, *Hingham, Mass.*  
 Katheryn Winsor, *Walpole, Mass.*  
 Bradley Jay Wirth, *Tolland, Conn.*  
 Timothy John Wissemann, *Southold, N.Y.*  
 Jocelyn Anzel Wooten, *Boston, Mass.*  
 Hope Ann Worden, *Bath, Me.*  
 Ramona Marie Meagan Wright, *Middleton, Mass.*  
 Mark Jason Wylie, *New Haven, Conn.*  
 Naoko Yoshimura, *Osaka, Japan*  
 Robert Freeman Young, Jr., *Newton, Mass.*  
 Edmond J. Zabin, *Lexington, Mass.*  
 Kariena Ann Zacharski, *Brooklyn, Conn.*  
 Eric Henry Zieff, *Portland, Me.*  
 Susan Zimmermann, *Flourtown, Pa.*

*As of the Class of 1987*

Kristyne Marie Athanas, *Auburn, Mass.*

*As of the Class of 1985*

Joseph Edward Mizhir, *Winchendon, Mass.*

*As of the Class of 1983*

Michael Mason Fraser, *Rumford, Me.*

Deborah Anne Kay, *Norton, Mass.*

*As of the Class of 1982*

Brady More Connors, *Marblehead, Mass.*

John H. Scalley, *Hillsboro Beach, Fla.*



*As of the Class of 1975*

Michele Burke McKnight, *Baltimore, Md.*

*As of the Class of 1974*

Lee Budner Brandwein, *Sidney, Me.*

*Degrees Granted in October as of the Class of  
1987*

Thomas Carlton Reed, *Woolwich, Me.*

Michael Ricci, *Danielson, Conn.*

Jeffrey Marc Silverman, *Beverly, Mass.*

## **Honorary Degree Recipients**

Charles P. Angwenyi '64

*Doctor of Humane Letters*

William S. Cohen

*Doctor of Laws*

Archibald Cox

*Doctor of Laws*

C. Everett Koop

*Doctor of Science*

Odetta

*Doctor of Music*

# Honors

## Senior Marshal

Linda Grace Roberts

## Bachelor's Degree with Honors

### *Summa Cum Laude*

Ann Elizabeth Mitchell  
Elizabeth Ann Murphy  
Linda Grace Roberts

### *Magna Cum Laude*

Laurel Jeanne Anderson  
Patricia M. Cirigliano  
Patrick Thomas Clendenen  
Brian Norton Connors  
Maura Alice Smith Daigle  
Rebecca Demchak  
Noshir Behli Dubash  
Michael John Fleming  
Kenneth Fuller Ginder  
Susan Janice Jacobson  
Richard Anthony Lanzi  
Scott Joseph Lynch  
Meredith Carter Magie  
Colleen Marie McKenna  
Carol Jean O'Hanlon  
Celia Girard Pastoriza  
Stephanie Pierce  
Joanne M. Pomerleau  
Matthew James Reilly  
Stefanie Allerton Rocknak  
Andrew William Sulya  
Eric Leonard Swan  
Juli K. Swanson  
Katherine Grace Trudeau  
Kevin Michael Webb  
Naoko Yoshimura

### *Cum Laude*

Zachary Franklin Abrams  
Keith M. Adams  
Jennifer Jean Allen  
Margaret Elizabeth Beier  
Michael Paul Bukowski  
Vickie Ann Caron  
Cheah Ban Chuan  
Lisa Anne Collett  
Bryan Andrew Costello

Karen Elisabeth Croff  
Jeffrey Albert Dym  
Lyn Ann Fernandes  
Ann M. Fillback  
Deborah A. Gentile  
Christine P. Gilman  
Joshua Marcus Goldberg  
Kerry A. Griffin  
Jayne Kara Grossman  
Susan Warner Hallawell  
Lorin Korell Haughs  
Jane Ann Hayden  
Jill Elizabeth Heslam  
Garret Alden Hinebauch  
Emily James Isaacs  
Heidi Marie Kampersal  
William Charles Kinney  
Kristina Kuhlmann  
Paul David LaFontaine  
Andrew Levin  
Susan Joan Lochhead  
Susan Henderson Maddock  
MaryAnn McHugh  
Leslie J. Migliaccio  
Alexandra I. Motyka  
Keith Robert Patterson  
Michael P. Piergallini  
Eric J Piesner  
Sarah Elizabeth Pope  
Lauren Susan Prescott  
Nicola S. D. Rotberg  
Melissa Ruff  
John Douglas Seidl  
Brian James Smith  
Elena Marie Stamoulis  
Eileen Marcia Stark  
Steven N. Teplitz  
David Perot Trainer  
Katherine Waddell Walker  
Peter R. Weltchek  
Jill Amy Wertz  
Katheryn Winsor  
Kariena Ann Zacharski  
Eric Henry Zieff

### *Honors in American Studies*

Jennifer Jean Allen  
Mary Jane Carty

Brian Norton Connors  
 Kimberly Townsend Lynch  
 Lisa Jayne Tomasetti  
 Helen Dillon Walker

*Honors in Chemistry*  
 William Charles Kinney

*Honors in Economics*  
 Michael John Fleming  
 Mary Dawn Thomson

*Honors in Government*  
 Christine P. Gilman  
 Jeffrey Scott Glover

*Honors in History*  
 John Douglas Seidl

*Honors in Physics*  
 Noshir Behli Dubash  
 Elizabeth Ann Murphy

*Honors in Psychology*  
 Deborah Ellen Burke  
 Catherine M. Cohen  
 Susan Joan Lochhead

## Distinction in the Major

*Administrative Science*  
 Susan Maria Amendolare  
 Vickie Ann Caron  
 Richard B. Crook  
 Jill Elizabeth Heslam  
 Michael P. Piergallini  
 Joanne M. Pomerleau  
 Lauren Susan Prescott  
 Scott David Smith

*Administrative Science:*  
*Quantitative Methods*  
 Lisa Anne Collett

*American Studies*  
 Jennifer Jean Allen  
 Brian Norton Connors  
 Colleen Marie Doyle  
 Garret Alden Hinebauch  
 Heidi Ruth Irving  
 Susan Janice Jacobson  
 Kristina Kuhlmann  
 Stefanie Allerton Rocknak  
 David Frederic Scannell  
 Robert McKean Thomas  
 Lisa Jayne Tomasetti

### *Art*

Karen Elisabeth Croff  
 Michael Perkins Graf  
 Christine King  
 Carolina A. Kroon  
 John Douglas Seidl

### *Art: Studio Art*

Mary Katherine Eickhoff  
 Stefanie Allerton Rocknak  
 Kristen L. Roeder

### *Biology*

Keith M. Adams  
 Terry R. Allen, Jr.  
 Michael Paul Bukowski  
 Medha Hemant Devare  
 Deborah A. Gentile  
 Richard Anthony Lanzi  
 Andrew Levin  
 Roger Burton Nowak  
 Katherine Grace Trudeau  
 Jill Amy Wertz

### *Biology: Environmental Science*

Laurel Jeanne Anderson  
 Alexandra I. Motyka

### *Chemistry*

William Charles Kinney  
 Andrew William Sulya  
 Kevin Michael Webb

### *Chemistry: Biochemistry*

Nicola S. D. Rotberg

### *Classics*

Michael Lindsay Ayers

### *Classics-English*

Jessica Lyn Atherton Corkum

### *East Asian Studies*

Meredith Carter Magie  
 Carol Jean O'Hanlon  
 Eric J Piesner

### *Economics*

Zachary Franklin Abrams  
 Cheah Ban Chuan  
 Patrick Thomas Clendenen  
 Michael John Fleming  
 Ann Elizabeth Mitchell  
 Matthew James Reilly  
 Eric Leonard Swan  
 Mary Dawn Thomson

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Peter R. Weltchek  
Katheryn Winsor  
Kariena Ann Zacharski

*Economics-Mathematics*  
Eric Leonard Swan

*English*

Richard F. Calichman  
Michelle Cheeseman  
Patricia M. Cirigliano  
Henry Hays Crimmel III  
David Alan Crowell  
Maura Alice Smith Daigle  
William Joseph Derry  
Joshua Marcus Goldberg  
Susan Warner Hallawell  
Karen Elizabeth Hentz  
Emily James Isaacs  
Heidi Marie Kampersal  
Melissa Suzanne Kerley  
Donald Cameron Klein  
Cynthia Helen Kontulis  
Ellen Elizabeth Krause  
Kristina Kuhlmann  
Suzanne Louise MacLachlan  
Susan Henderson Maddock  
Anna Fox Schonleber McCaw  
Tanya G. Mead  
Leslie J. Migliaccio  
Celia Girard Pastoriza  
Sarah Elizabeth Pope  
Anne Charlotte Scoville  
Lisa Kristina Vargas  
Mark C. Viden  
Bradley Jay Wirth

*French*

David Kennedy Brooks  
Jill Elizabeth Heslam  
Nancy Beth Reese

*Geology-Biology*  
Rebecca Demchak

*German*

Jeffrey Scott Glover  
Jeffrey Andrew Huebschmann  
Steven R. Masur  
Andrew Bernard Roos  
Raphaël Thomas Smith

*Government*

Karen Lee Adler

Patrick Thomas Clendenen  
John Williams Davie  
Nancy Donahue  
Jonathan W. Foote  
Christine P. Gilman  
Jeffrey Scott Glover  
Richard Philip Keigwin, Jr.  
Gregory Paul Lawless  
Meredith Carter Magie  
MaryAnn McHugh  
Colleen Marie McKenna  
Phoebe Nason  
Matthew James Reilly  
Melissa Ruff  
David Frederic Scannell  
Patricio Silva Bakovic  
Elena Marie Stamoulis  
Steven N. Teplitz  
Sarah Tucker  
Todd Wallingford  
Naoko Yoshimura  
Edmond J. Zabin

*History*

Todd Turner Blake  
Ann M. Fillback  
Kenneth Fuller Ginder  
Kerry A. Griffin  
Jeffrey S. Konz  
Scott Joseph Lynch  
MaryAnn McHugh  
Brooks C. Patterson  
Keith Robert Patterson  
John Douglas Seidl  
Mary Dawn Thomson  
Lisa Jayne Tomasetti

*Human Development*

Jayne Kara Grossman  
Gretchen Eileen Halunen

*Mathematics*

Linda Grace Roberts

*Mathematics: Computer Science*

John Kerr Martin

*Performing Arts*

Patricia M. Cirigliano  
Maura Alice Smith Daigle  
Andrea C. Hoffmann  
Scott Michael Sprague

*Philosophy*

William T. Whittenberg, Jr.

*Physics*

Noshir Behli Dubash

Elizabeth Ann Murphy

*Psychology*

Lorin Korell Haughs

Susan Joan Lochhead

Stephanie Pierce

Eileen Marcia Stark

Katherine Waddell Walker

Jill Amy Wertz

Eric Henry Zieff

*Religion*

Lyn Ann Fernandes

Jonathan Lockhart Radtke

*Russian and Soviet Studies*

Bryan Andrew Costello

*Sociology*

Linda Lee

Ellen Jo Meigs

Brian James Smith

Susan Zimmermann

*Spanish*

Melissa Whitney Brown

Michelle Cheeseman

Jayne Kara Grossman

Shawn David Holt

**Phi Beta Kappa***Elected in Junior Year*

Linda Grace Roberts

*Elected in Senior Year*

Laurel Jeanne Anderson

Patricia M. Cirigliano

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Lisa Anne Collett

Brian Norton Connors

Maura Alice Smith Daigle

Rebecca Demchak

Noshir Behli Dubash

Michael John Fleming

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Emily James Isaacs

Susan Janice Jacobson

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Richard Anthony Lanzi

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Meredith Carter Magie

Colleen Marie McKenna

Leslie J. Migliaccio

Ann Elizabeth Mitchell

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Stephanie Pierce

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Matthew James Reilly

Stefanie Allerton Rocknak

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Katherine Grace Trudeau

Kevin Michael Webb

Peter R. Weltchek

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*Class of 1990*

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 Camilla Helena Johansson, *Lyckeby, Sweden*  
 Elaine Allison Kingsbury, *Naples, Me.*  
 George Eric Lilja, *Natick, Mass.*  
 Mark Stephen Reilly, *West Roxbury, Mass.*  
 Karen Ritchie, *Bath, Me.*  
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 William Leonard Stauffer, *Framingham, Mass.*  
 Julie Marie Tarara, *Bradford, Mass.*  
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 Laura Ann Wood, *Hamden, Conn.*  
 Dawna Marie Zajac, *North Andover, Mass.*

*Class of 1990*

Carolyn Denise Baker, *Chagrin Falls, Ohio*  
 Kenneth Whiting Barber, *Bloomfield, Conn.*  
 Nathan Clapp, *Newton, Mass.*  
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 Alexander Follansbee Day, *Rockport, Me.*  
 Heather Ann Hall, *Bedford Hills, N.Y.*  
 Nancy Lynn Humm, *Park Ridge, Ill.*  
 Eileen Ruth Kinney, *Fullerton, Calif.*  
 Carol Elizabeth Lockwood, *Kailua, Hawaii*

Michael Joseph Marcello, *North Scituate, R.I.*  
 Thomas Bradford McClintock, *Colt's Neck, N.J.*  
 Eugene Bradley Spielman, *Menlo Park, Calif.*  
 Kristin Mary Sullivan, *South Yarmouth, Mass.*  
 Jennifer Anne Symonds, *Essex, Mass.*  
 David Ira Weissman, *Amherst, N.Y.*

**Senior Scholars**

Susan Warner Hallawell  
*Chutes and Ladders: Poems*

Colleen Marie McKenna  
*The Role of Presidential Personality  
 in the Carter Administration*

**Ralph J. Bunche Scholars***Class of 1988*

Roland Leo Louis Albert, *Saltillo, Covila,  
 Mexico*  
 Michelle Cheeseman, *Cromwell, Conn.*  
 Vanessa G. Hemsley, *New Bedford, Mass.*  
 Phuong Kim Lac, *Scarborough, Me.*  
 Linda Lee, *Cranston, R.I.*  
 Norman Fernandez Navarro, *Easton, Pa.*  
 Jocelyn Anzel Wooten, *Boston, Mass.*  
 Mark Jason Wylie, *New Haven, Conn.*

*Class of 1989*

Maria Louisa Arroyo, *Springfield, Mass.*  
 Timothy Burton, *Silver Spring, Md.*  
 Darrick Morris Henderson, *Kansas City, Mo.*  
 Lawanda Camella Marshall, *Memphis, Tenn.*  
 Majester Stewart, Jr., *Bronx, N.Y.*  
 Tiare Danielle White, *Los Angeles, Calif.*  
 Lisa Mabelle Wright, *Norfolk, Va.*

*Class of 1990*

Lynn Ann Cullins, *Sherman Station, Me.*  
 Maria Elena Gravano, *Staten Island, N.Y.*  
 Derek Randolph Hudson, *Washington, D.C.*  
 Edward Leon Hughes, *Bronx, N.Y.*  
 Soo Hee Lee, *Yonkers, N.Y.*  
 James Rogers Reynolds, *Nashville, Tenn.*  
 Francisco Alberto Smith, *Brooklyn, N.Y.*

*Class of 1991*

David M. Allen, *Brookline, Mass.*  
 Tyrone Phillip Clerk, *Brooklyn, N.Y.*  
 Candace Annette Green, *Pittsburgh, Pa.*  
 Chantal Latrice Miller, *Gary, Ind.*

Maryam Rikava Mims, *Rockaway, N.Y.*  
Gregory Artis Ore, *Philadelphia, Pa.*  
Michelle Renee Pinnock, *Queens, N.Y.*  
Adolfo K. Vaal Neto, *Dorchester, Mass.*  
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## L. L. Bean Scholars

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Melissa Ruff, *Freeport, Me.*

### *Class of 1989*

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John Michael Girard, *Westbrook, Me.*  
Elaine Allison Kingsbury, *Naples, Me.*

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Randy Allen Gover, *Ashland, Me.*  
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David Andrew Donnelly, *South Harpswell, Me.*  
Shelly Ann MacConnell, *Springvale, Me.*  
Clint Byron Walker, *Mechanic Falls, Me.*

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# College Calendar 1988-89

## First Semester

Monday, August 29 *through*  
Friday, September 2

Saturday, September 3

Tuesday, September 6

Wednesday, September 7

Friday, September 23 *through*

Sunday, September 25

Friday, October 28 *through*

Sunday, October 30

Monday and Tuesday, October 17, 18

Wednesday, November 23, at the  
conclusion of 12:30 classes *to*  
Monday, November 28, 8 a.m.

Friday, December 9

Saturday, December 10

Wednesday, December 14 *through*

Monday, December 19

Tuesday, December 20

COOT trips

Orientation program begins

Registration

First classes

Homecoming

Fall Parents Weekend

Midsemester break (no classes)

Thanksgiving recess

Last classes of first semester

Last day for scheduled events

Semester examinations

Make-up examinations (residence halls  
closed for winter recess)

## January Term

Monday, January 3

Wednesday, January 4 *through*

Tuesday, January 31

Orientation

January program

## Second Semester

Wednesday, February 1 *through*

Saturday, February 4

Saturday, February 4

Monday, February 6

Tuesday, February 7

Friday, February 17 *through*

Sunday, February 19

Friday, March 24, 5:30 p.m. *to*

Monday, April 3, 8 a.m.

Friday, May 12

Saturday, May 13

Wednesday, May 17 *through*

Monday, May 22

Tuesday, May 23

Saturday, May 27

Sunday, May 28

COOT trips

Orientation

Registration

First classes

Winter Parents Weekend/Family

Winter Weekend

Spring recess (residence halls closed)

Last classes of second semester

Last day for scheduled events

Semester examinations

Make-up examinations

Baccalaureate

Commencement

# College Calendar 1989-90

## First Semester

Monday, August 28 <i>through</i> Friday, September 2	COOT trips
Saturday, September 2	Orientation program begins
Tuesday, September 5	Registration
Wednesday, September 6	First classes
Monday and Tuesday, October 16, 17	Midsemester break (no classes)
Wednesday, November 22, at the conclusion of 12:30 classes <i>to</i> Monday, November 27, 8:00 a.m.	Thanksgiving recess
Friday, December 8	Last classes of first semester
Saturday, December 9	Last day for scheduled events
Wednesday, December 13 <i>through</i> Monday, December 18	Semester examinations
Tuesday, December 19	Make-up examinations (residence halls closed for winter recess)

## January Term

Tuesday, January 2	Orientation
Wednesday, January 3 <i>through</i> Tuesday, January 30	January program

## Second Semester

Wednesday, January 31 <i>through</i> Saturday, February 3	COOT trips
Saturday, February 3	Orientation
Monday, February 5	Registration
Tuesday, February 6	First classes
Friday, March 23, 5:30 p.m. <i>to</i> Monday, April 2, 8:00 a.m.	Spring recess (residence halls closed)
Friday, May 11	Last classes of second semester
Saturday, May 12	Last day for scheduled events
Wednesday, May 16 <i>through</i> Monday, May 21	Semester examinations
Tuesday, May 22	Make-up examinations
Saturday, May 26	Baccalaureate
Sunday, May 27	Commencement

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

# NOTES

# NOTES



## NOTES

Admissions Office  
Colby College  
Waterville, Maine 04901



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