## Academic Calendar

## FALL 1976

|  | Aug. | Fri, | $\begin{aligned} & \text { Registration-day students—9:00 a.m.- } \\ & \text { 4:30 p.m. } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 28 | Aug. | Sat. | Registration-Saturday and evening students only--9:00 a.m.-12:00 noon |
| 30 | Aug. | Mon. | Classes begin-8:10 a.m. |
| 31 | Aug. | Tues. | First day for late registration and to add or drop courses |
| 6 | Sept. | Mon. | Classes suspended |
| 9 | Sept. | Thurs. | Last day for late registration and to add courses; last day for undergraduate students to file $\mathrm{S} / \mathrm{U}$ or $\mathrm{A}-\mathrm{E}$ grading options |
| 4 | Oct. | Mon. | Last day to file December 1976 degree application in Office of the RegistrarRecords Service (AD B \#5) |
| 5 | Oct. | Tue | Classes suspended |
| 8 | Oct. | Fri. | Academic advisement begins-University College |
| 21 | Oct. and | Thurs. | First Quarter Final Examination Period |
| 22 | Oct. | Fri. |  |
| 25 | Oct. | Mon. | Second Quarter classes begin-8:10 a.m. |
| 29 | Oct. | Fri. | Last day for graduate students to drop courses |
| 1 | Nov. | Mon. | Pre-registration for Spring 1977 beginsColonial Quad |
| 19 | Nov. | Fri. | Last day to make up Incomplete grades; pre-registration ends- 3:00 p.m. |
| 25 | Nov. | Thurs. | Classes suspended |
| 29 | Nov. | Mon. | Classes resume-8:10 a.m. |
|  | Dec. | Wed. | Last day for dissertation and thesis submission for December 1976 graduation |
|  | Dec. | Tues. | Last day for undergraduate students to drop courses |
| 14 | Dec. | Tues. | Classes end; classes which meet once a week on Wednesday or Thursday, and Second Quarter courses continue to meet through 16 December |
| 15 | Dec. and | Wed. | Reading Days |
| 16 | Dec. | Thurs. |  |
| 17 | Dec. through | Fri. | Final examinations |
| 23 | Dec. | Thurs. |  |

## Academic Calendar

## SPRING 1977

14 Jan. Fri. Registration-day students-9:00 a.m.4:30 p.m.
15 Jan. Sat. Registration-Saturday and evening stu-dents-9:00 a.m.-12:00 noon
17 Jan. Mon. Classes begin-8:10 a.m.
18 Jan. Tues. First day for late registration and to add or drop courses
27 Jan. Thurs. Last day for late registration and to add courses; last. day for undergraduate students to file $\mathrm{S} / \mathrm{U}$ or A-E grading options
4 Feb. Fri. Last day to file May 1977 degree application in Office of the Registrar-Records Service (AD B\#5)
19 Feb. Sat. Classes suspended-5:00 p.m.
28 Feb. Mon. Classes resume-8:10 a.m.
7 Mar. Mon. Academic advisement begins-University College

| 17 Mar. | Thurs. | Third Quarter Final Examination Period |
| :---: | :---: | :---: |
| 18 Mar. | Fri. |  |
| Mar. | Fri. | Last day for graduate students to drop |

2 Apr. Sat. Classes suspended-5:00 p.m.
11 Apr. Mon. Classes resume-8:10 a.m.; pre-registration for Summer and Fall 1977 beginColonial Quad
15 Apr. Fri. Last day to make up Incomplete grades 29 Apr. Fri. Pre-registration ends-3:00 p.m.
2 May Mon. Last day for dissertation and thesis submission for May 1977 graduation
5 May Thurs. Last day for undergraduate students to drop courses
12 May Thurs. Classes end; classes which meet once a week on Friday, Saturday, or Monday, and Fourth Quarter courses continue to meet through 16 May

| 13 | May and | Fri. | Reading days |
| :---: | :---: | :---: | :---: |
| 16 | May | Mon. |  |
| 17 | May through | Tues. | Final examinations |
| 23 | May | Mon. |  |
| 28 | May | Sat. |  |
|  | and |  | Graduation weekend |
| 29 | May | Sun. |  |

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# State University of New York at Albany 

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Assistants to the President. Robert C. ShirleyJ. Fredericks Volkwein
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University Registrar. Donald Bunis

The calendars, curricula, and fees described in this bulletin are subject to change at any time by official action of State University of New York at Albany.

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## Official Notice

Calendars for 1976-77 printed in official bulletins of the School of Business, School of Criminal Justice, School of Education, and the School of Social Welfare do not reflect important changes in the examination schedule and other dates.

The 1976-77 calendar in this bulletin supersedes all calendars printed before March 8, 1976. Approved on that date, it stands until officially changed by State University of New York at Albany.

# State University of New York at Albany 

## GENERAL INFORMATION

State University of New York at Albany is the oldest of four university centers of the state-wide university system. It offers undergraduate and graduate education in a wide variety of fields of study culminating in bachelors', masters', and doctoral degrees.

The University at Albany acknowledges its three traditional obligations-for teaching, for research, and for service to its community.

To fulfill the first of these obligations, the university provides, through teaching and the design of academic programs, opportunities for students to become liberally educated men and women with superior competence in their chosen professions or occupations. This goal is accomplished through the expansion of intellectual horizons, which is the traditional aim of liberal studies, in combination with thorough specialized or professional study. Such preparation presupposes an enviromment in which the-student is encouraged to explore freely and to accept the corequisite responsibility which such freedom affords.

The university's responsibility for research rests on its historic obligation to extend the boundaries of knowledge by all the means at its command. Thus, the university offers the most active assistance and encouragement to its members to carry out scholarly, scientific or creative projects and to make their results widely available.

These traditional activities of the university underlie and support the services it renders to its community. The university shares its interest in intellectual and artistic pursuits, disseminates the results of its research, and encourages its scholars to serve the community through application of their skills and special competencies.

All these responsibilities are mutually reinforcing; accordingly, the university recognizes that in order to discharge effectively any one of its responsibilities, it must be wholeheartedly committed to them all.

## DESCRIPTION

State University of New York at Albany enrolled more than 15,400 students in 1975-76. The University at Albany is committed to a policy of development consistent with the maintenance of the high standards of educational quality which have marked the excellent reputation Albany has enjoyed for more than 130 years.

A new campus, boldly conceived and striking in appearance, is located at the junction of the Northway and the Thruway (Interstate 87 and 90). Designed by Edward Durrell Stone, it contains 13 academic buildings on a common platform, all connected by a continuous roof and an enclosed below-level corridor.

Four nearby residence units house students in quadrangles; each contains eight three-story halls surrounding a 23 -story tower. The living units consist of four-, five-, and six-student suites, divided into two or three sleeping rooms, a common study and an adjacent bath. Lounge, recreation, and dining facilities are provided for each unit.

Heart of the academic group is the Lecture Hall Center. Rooms seating 60-500 students are arranged around a central court. Each is equipped with the latest audio-visual communications devices, connected to the nearby Educational Communication Center. On one end of the lecture complex is the University Library which contains more than 850,000 volumes and seats 3,000 readers at one time.

On the opposite side is the Performing Arts Center with its several theatres, recital halls and rehearsal rooms, in addition to instructional space.

The Fine Arts Building houses one of the outstanding galleries in the Northeast with an exciting series of exhibitions constantly underway.

The Campus Center serves the entire university. Its four floors include a variety of lounges, meeting and activities rooms, a ballroom, cafeteria, snack bar-rathskeller, dining room, bookstore, bowling lanes, information and check-cashing services.

Outdoor recreation facilities include 24 tennis courts, four basketball and six volleyball courts, as well as several grassed multi-purpose playing areas. In the Physical Education Center are a pool, handball and squash courts and areas for team sports.

The university maintains residence, instructional, clinical, and research facilities in the heart of the city. Shuttle buses connect the uptown campus with university buildings and commercial areas downtown.

Facilities for the disabled, including wheel chair ramps and shower facilities, are incorporated in the university. A program expanding these features is well underway.

Located near the junction of the Hudson and Mohawkrivers, Albany offers a variety of cultural and recreational activities. Summer and winter sports are available in the mountains and lakes nearby, and major metropolitan centers are only a few hours away by highway.

## ACCREDITATION

State University of New York at Albany enjoys unusual accreditation privileges. It is chartered by the Board of Regents of New York State. All its degrees and programs are registered and its professional programs fully approved by the Board of Regents through the New York State Education Department. It is a member of the Council of Graduate Schools in the United States. It is fully accredited by:

The Middle States Association of Colleges and Seconary Schools,

The National Council for Accreditation of Teacher Education,

The Council on Social Work Education,
The National League for Nursing, Inc.,
The American Assembly of Collegiate Schools of Business,

The American Chemical Society,
The American Library Association,
The Medical Library Association, and
The American Board on Counseling Services, Inc.
Its graduates are recognized by the American Association of University Women. Many national scholastic honorary organizations are chartered at the university, including Phi Beta Kappa.

## LIBRARIES

The University Libraries include the main library housing the bulk of the collection, the Downtown Campus Branch Library in Hawley Hall, and the School of Library and Information Science Library located on the ground floor of the University Library. The main library provides individual student carrels and study rooms for faculty and doctoral research. Books and periodicals resources, organized by the Library of Congress classification scheme, exceed 850,000 volumes. Current periodical and newspaper subscriptions number 6,200 with extensive backfiles. The library, a selective depository for U.S. government publications, also collects documents of local, state, foreign and international governmental agencies. Membership in the Center for Research Libraries provides access to the center's $3,000,000$ volume collection. The University Library is also a member of the Association of Research Libraries. 1 The main library, except for holidays, is open during regular sessions Monday-Thursday, 7:30 a.m.-12 midnight; Friday, 7:30 a.m.-10:00 p.m.; Saturday, 9:00 a.m.-8:00 p.m.; and Sunday, 12 noon-12 midnight. Information on library hours is available by calling 457-8551 at any hour. As part of reference service, the Information Retrieval Section formulates computer-produced bibliographies using MEDLARS, ERIC, Biological Abstracts and Psychological Abstracts data bases. These data bases, providing nearly $3,300,000$ monographic and journal citations, are particu${ }^{\text {a }}$ larly useful for searches requiring an interrelationship be${ }^{1}$ tween two or more subjects.

In addition to the Reference staff, Bibliographic Development provides subject qualified specialists to aid faculty $t$ and students in the use of library materials. Other available ${ }^{\text {© }}$ services include tours, orientation sessions and instruction in the techniques of bibliographic research.

## ${ }^{\dagger}$ COMPUTING CENTER

The Computing Center is a regional computing facility with responsibility for providing computer resources to the ${ }^{2}$ SUNYA campus and to other participating public and private educational institutions. The major computer hardware is a UNIVAC 1110, a large, high-speed, general purpose computer which provides research, instructional and
administrative data processing support in both an interactive and batch mode.

The Center supports a wide range of programming languages as well as a comprehensive library of applications programs and subprograms which are available to the user community. Besides a general purpose time-sharing capability that allows access to most of the currently popular programming languages, high volume time-sharing is provided by a system called RTB. Written at SUNYA, RTB gives access to a rich and responsive BASIC programming language. Also available is a computer image processing facility, and under development is an extended interactive computer graphics capability. The Center maintains a user room equipped with RTB terminals, keypunches, and graphics terminals that are available from 16-22 hours per day.

## Expenses

## TUITION AND FEES

At the printing of this bulletin, charges for 1976-77 are predicted to be billed at the following rates. They are subject to change. (Tuition and fees are prorated for part-time students.)

All expenses listed below (excluding graduation assessment) are based on one session's cost; items must be doubled for cost of academic year.
A. Tuition-Undergraduate Students:

1. New York State Residents
a. Lower Division-Freshmen and Sophomores per session . . . . $\$ 375.00$ or part-time (under 12 credits). $\$ 25.00$ per credit
b. Upper Division-Juniors and Seniors per session . . . . . . . . $\$ 450.00$ or part-time (under 12 credits). $\$ 30.00$ per credit
2. Out-of-State Residents
a. Lower Division-Freshmen and Sophomores per session . . . . $\$ 600.00$ or part-time (under 12 credits). $\$ 40.00$ per ciedit
b. Upper Division-Juniors and Seniors per session . . . . . . . . $\$ 750.00$ or part-time (under 12 credits) \$ 50.00 per credit
B. University Fee . . . . . . . . . . . . . .. . . . . . . . . . . \$ 12.50
C. Student Activity Assessment . . . . . . . . . . . . . . \$ 33.00
D. Books . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 75.00$
E. Room in residence hall . . . . . . . . . . . . . . . . . . . $\$ 375.00$
F. Board . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$365,00
G. Class Dues . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 2.00$
H. Health and Accident Insurance
(See Health Services) . . . . . . . . . . . . . . . . . . \$ 26.50
I. Service charge for late registration . . . . . . . . . \$ 10.00
J. Service charge for late payment of fees . . . . . \$ 10.00

Invalidated checks received on account will constitute
late payment; the above service charge will be applied.
To the above costs should be added an estimated cost of $\$ 275$ per session to cover clothing, travel, recreation, and personal needs. It is, therefore, suggested that each student registered at this university have available for the academic year the amounts of money indicated below; these amounts ${ }_{4}^{4}$ represent average total cost.
fare. The program objective of this course of study is to educate students in becoming familiar with the basic nature of the field of social welfare and various forms of service.

## CROSS-REGISTRATION

Undergraduate students at SUNYA may cross-register for courses at other campuses within this area while enrolled at this institution. Cross-registration enrollments must be in courses not available through the SUNYA curriculum.

Cross-registered students must be full-time undergraduate, matriculated students and at least one half of a student's credits registered during a cross-registered term must be SUNYA courses. No extra tuition charge is assessed, but students are responsible for any fees that may be required by the host institution for a particular course. Credits earned through cross-registration are recorded as transfer credits.

Students seeking more information about the participating institutions and the courses available should contact the Associate Dean of the University College, ULB 36.

THE VISITING STUDENT PROGRAM
State University of New York at Albany participates in the Visiting Student Program which allows students to study at participating public and private institutions in the state. The purpose of the program is to enable students to take advantage of the extraordinarily rich educational resources represented by the institutions for a session or year.

There are 50 colleges and universities participating in the Visiting Student Program. Further details on the participating schools and procedures for applying may be obtained from University College, ULB 36.

## LEAVE OF ABSENCE

A student at State University of New York at Albany may apply for a leave of absence to study in an approved program at another accredited college or university. The student on leave must have the approval of his academic adviser. Information and applications for leaves of absence may be obtained at the Office of the Dean of Student Affairs.

## Undergraduate Academic Regulations

Within the governance framework of this university, the Undergraduate Academic Council recommends policy concerning undergraduate academic programs and regulations. To assist in academic governance, individual schools and colleges have collateral committees which can recommend academic policy to this council and review individual appellate cases. It is the responsibility of each undergraduate student to be knowledgeable concerning pertinent academic policy. The university encourages each student to accept the widest responsibility for his academic program.

## I. CLASSIFICATION OF STUDENTS

Students are classified by the University Registrar on the basis of graduation credits, as follows:

Freshman Fewer than 24
Sophomore
24-55
Junior 56-87
Senior
88 or more
Most students are enrolled in University College during their freshman year. When a student has been accepted as a major he is enrolled in the school or college offering study in the desired major field.* In line with policy developed by the Committee on Academic Standing of the Undergraduate Academic Council, a particular department, school, or college within the university may permit a student to enroll who has not fulfilled the minimum standards of enrollment. Special conditions of enrollment may be required by individual departments, schools, or colleges.

## II. GRADING**

The normative grading pattern is "A-E." Students may select up to 30 credits of courses below the 500 level graded on an "S/U" (satisfactory/unsatisfactory) basis, six

[^0]
## FINANCIAL ASSISTANCE

All matters regarding financial assistance to students of the university should be directed to:

Office of Financial Aids
Business Administration Room 109
State University of New York at Albany
1400 Washington Avenue
Albany, New York 12222
Phone: (518) 457-8882

## ACADEMIC ADVISEMENT

Academic advisement services for undergraduate students are coordinated by the University College. Advisers assist students to plan and select a course of study which is consistent with the student's abilities, interests, achievements, and future plans. Information about courses, academic study beyond the SUNY-Albany campus, interpretation of the university's academic policies, and referral to other university offices and persons for assistance in psychological counseling, health problems, financial needs, and other specializèd resources are part of the services provided by academic advisers.

Students who are "open majors" or who intend to pur-sue-one-of the "limited-enrollment" majors-are-advised-by the staff of the University College until they are ready to declare a major or until they are accepted by the academic unit that offers their intended major. Various patterns exist as to when a student may be accepted as a major in a specific department. The University College works closely with each of the degree-granting schools and colleges within the university to insure that students have access to trained and knowledgeable persons who can assist students to make responsible decisions as they plan their academic programs.

Specialized advisement opportunities are provided for students who intend to apply to medical, dental, allied health, or law schools. These services are coordinated through the University College and specific information about pre-professional advisement is presented during the orientation programs provided for entering students.

Students are encouraged to meet with their assigned adviser on a regular basis and to review the advisement information materials that are provided to students by the staff of the University College.

## III. ACADEMIC STANDING



The following minimum academic retention standards apply to full-time students:
A. Full-time students shall have their university registration terminated at the end of the appropriate session if they do not have the number of graduation credits listed below under "Academic Termination." Students who are terminated shall have the words "Registration Terminated" placed on the Academic Record.
B. A full-time student shall be placed on probation if he fails to complete satisfactorily at least nine graduation credits during a session and/or if he has not accumulated the appropriate number of credits according to the listing below under "Academic Probation." He shall be given written notification of his status at the end of the appropriate session.

| End of <br> Session | Academic <br> Termination | Academic <br> Probation |
| :--- | :---: | :---: |
| first | 6 | 9 |
| second | 18 | 24 |
| third | 30 | 36 |
| fourth | 42 | 48 |
| fifth | 54 | 60 |
| sixth | 66 | 72 |
| seventh | 78 | 84 |
| eighth | 92 | 98 |
| ninth | 106 | 112 |
| tenth | 120 | $\ldots$ |

A student dismissed from the university for failing to meet the minimum academic standards set forth above shall have the right to seek reinstatement by written petition to the appropriate committee on academic standing.

## IV. CREDIT LOAD

A. A full-time student is defined as one carrying a minimum of 12 credits at the close of the first week of classes. Those carrying fewer credits are classified as part-time students.
B. A normal session load is 15 credits.
a. New York State Resident
(1) Lower Division . . . . . . . . . . . . . . . . $\$ 3,100.00$
(2) Upper Division . . . . . . . . . . . . . . . . 3,250.00
b. Out-of-State Resident
(1) Lower Division . . . . . . . . . . . . . . . . 3,650.00
(2) Upper Division . . . . . . . . . . . . . . . 3,850.00
c. Commuting Students
(1) Lower Division . . . . . . . . . . . . . . . . 1,800.00
(2) Upper Division . . . . . . . . . . . . . . . . 2,000.00

## REFUNDS

A student withdrawing officially from his courses is entitled to a refund of a proportion of the tuition paid for the course according to the schedule below. The Office of Student Accounts, upon receipt of formal notice of withdrawal, automatically refunds tuition due. Saturday of the week in which the first class session occurs shall be deemed the end of the first week for refund purposes.
First Week . . . . . . . . . . . . . . . . . . . . . $100 \%$
Second Week . . . . . . . . . . . . . . . . . . . . 70\%

Third Week $50 \%$
Fourth Week $30 \%$
Fifth Week .......................... 0\%

Example of refund to a student whose program drops below 12 credits
a. Tuition charge for student taking 13 credits . . $\$ 375.00$ Student drops a 3 credit course during fourth week:
. Tuition charge as a special student for the remaining 10 credits ( 10 credits @ $\$ 21.50$ ). . 250.00
c. Difference between amount originally charged as a full-time student and reevaluated charges as a special student:125.00
d. Liability percentage as provided by schedule of tuition during fourth week: ..... $70 \%$
e. Tuition charge: ..... 87.50
f. Refund: ..... 37.50
level course, the student must have the approval of his adviser and obtain the written permission of his department chairman and the instructor offering the course. The department chairman should arrange for copies of these permissions to be distributed to the persons involved and filed in the student's official folder.

## VI. AUDITING COURSES

There are two categories of audit. In the informal audit the student visits courses without tuition, fees, examinations, grading, or credit and no record is maintained. In the formal audit the student pays tuition and fees, and the course is entered on the transcript of the student with the grade of " N " (non-credit).

## VII. TRANSFER OF CREDIT

A degree candidate wishing to take courses at other institutions for credit toward a degree at this university must have prior approval in writing from his academic adviser. Such written approval must be filed with the Office of the University Registrar and_an-official transeript-of-work satisfactorily completed at another institution must be received by that office before credit can be awarded.

## VIII. ATTENDANCE

Class attendance is a matter between the instructor and the student. The instructor is obliged to announce and interpret specific attendance policies to his class at the beginning of the course.

## IX. RE-EXAMINATION

A student who fails a course may, under special circumstances and with approval of the instructor, be granted a re-examination.

## X. GRIEVANCE PROCEDURES

Each academic unit of SUNY-Albany has grievance procedures whereby students can have complaints against an instructor investigated. Students should contact the office of the dean of the academic unit involved if further information is desired.

## $N$

of which may be in the major, second field, or combination thereof. Courses for which a student selects "S/U" grading are so designated on the academic record. In addition, some courses listed in the Schedule of Classes by a department are designated for "S/U" grading; these departmentally designated " $\mathrm{S} / \mathrm{U}$ " graded courses are in addition to the 30 credits of " $\mathrm{S} / \mathrm{U}$ " courses a student may select.

The grade of " $A$ " indicates excellent achievement and the grades of " $B$ ", " $C$ ", " $D$ ", and " $E$ " indicate achievement in descending order of accomplishment. The grade of " D " can only be used to fulfill graduation requirements if it is balanced as defined in section XIV, B of these regulations. The grade of " $E$ " is a failing grade and cannot be used to fulfill graduation requirements.

The grade of " $S$ " indicates satisfactory achievement at least at the level necessary for an undergraduate degree and is acceptable to fulfill graduation requirements. The grade of " $U$ " is unsatisfactory and is not acceptable to fulfill graduation requirements.

Additionally, the following grades may be assigned:
I Incomplete. No graduation credit. A temporary grade assigned by the instructor only when the student has nearly completed his course requirements but because of circumstances beyond the student's control the work is not completed. The incomplete grade must be resolved prior to one month before the end of the term following that in which the incomplete is received. Failure to satisfy the deadline for resolving the grade of "I" will result in the appropriate academic grade being assigned by the instructor.
N Non-credit.
W Withdrawn. Not an academic grade. (See the section on dropping a course and withdrawal from the University.)
Z Administrative penalty grade. No graduation credit. The grade was assigned before August 20, 1973, for failure to complete an " I " or when no other grade was appropriate.
3. A student whose last date of course attendance is before the last day to drop courses shall receive the grade of "W" for each registered course.
4. A student who withdraws from the university after the last day to drop courses for that session will receive the appropriate academic grade assigned by the instructor for each course.
5. A matriculated student who does not register, or registers but does not attend any classes, for a given session will be withdrawn from the university.

## XII. ACADEMIC AVERAGE

The academic average is computed using all course credits graded and weighted as follows: A-4, B-3, C-2, D-1, and E-0. The average does not include courses with the grades of $\mathrm{S}, \mathrm{U}, \mathrm{I}, \mathrm{W}$, or N .

## XIII. DEAN'S LIST

A student is placed on the dean's list if a minimum of 15 graduation credits is completed in one session with a term average of 3.00 or greater and if at least 12 of those graduation credits are graded "A-E."

## XIV. GRADUATION REQUIREMENTS

A. Requirements for the Bachelor's Degree are found in the next section of this bulletin.
B. Credit-Grade Requirements

1. Credits

A student must earn a minimum of 120 acceptable graduation credits to be eligible for graduation from the university.
Acceptable graduation credit is:
a. Credit accepted by transfer.
b. Credit earned through approved proficiency examinations.
c. Credit completed with the grades of "A", "B", "C", or "S."
d. Credit completed with the grade of "D" only if it is balanced by credit with the grades of "A" or " $B$ ". One credit earned with the grade of " $B$ "
C. The maximum number of credits for which a student registers in a session is an individual matter. The maximum credit load for a student in a given session is determined with the advice and consent of that student's academic adviser. It is incumbent upon the student who desires to take more than the normal 15 credits to prepare the rationale for discussion with his academic adviser.

## V. COURSE ENROLLMENT

A. A student ordinarily enrolls in courses at the level appropriate to his class.
B. Individual departments have the authority to require a "C" or "S" grade in courses that are prerequisite for advanced courses in that area.
C. Graduate-Undergraduate Study

Seniors of high academic standing in the university may receive graduate credit for graduate courses taken in excess of undergraduate requirements in the last session of their senior year provided not more than six credits are needed to complete the student's undergraduate program. Permission of the Dean of Graduate Studies is required and must be obtained in advance of registration to receive such credit. A senior who is permitted to take courses for graduate credit in his last session also must make formal application for admission to a graduate program and be accepted as a graduate student before registering for study in the final session.
D. Graduate Courses-Undergraduate Credit 500 level course enrollment: A senior with a superior academic record may register for a 500 level course for undergraduate credit with the approval of the major department chairman and the course instructor. 600 level course enrollment: In exceptional circumstances, a senior may be authorized to register for a 600 level graduate course provided he has completed most of the upper division undergraduate and other courses essential to his major and requires a graduate course to strengthen it. To qualify for such enrollment the senior must have a superior record, particularly in his major field. To register for a 600
with an average equal to or greater than 3.00 but less than 3.40; Magna Cum Laude with an average equal to or greater than 3.40 , but less than 3.70; Summa Cum Laude with an average equal to or greater than 3.70. For graduation with honors, a student must have completed a minimum of 56 credits at this university graded on the "A-E" scale.
2. A student who completes an Honors Program may receive a special Honors Certificate upon the recommendation of his major department.

## Requirements for the Bachelor's Degree

The university awards the degree of Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) to those candidates who have completed an approved sequence of courses and study totaling a minimum of 120 credits and who, by vote of the faculty, are certified as having fulfilled all degree requirements.

## A. BACHELOR-OF-ARTS

1. The Bachelor of Arts degree requires a minimum of 120 credits.
2. The Bachelor of Arts degree requires at least 90 credits in the liberal arts and sciences.
3. The Bachelor of Arts degree requires $30-36$ credits in a major which has been registered with the Education Department of the State of New York.
a. A major in one of the following:

General Program
College of Arts and Sciences: African and AfroAmerican Studies, Anthropology, Art, Biology, Comparative and World Literature, Economics, English, French, Geography, German, Greek, Greek and Roman Civilization, History, InterAmerican Studies, Interdisciplinary Studies (such as Chinese Studies, Asian Studies, Linguistics, Environmental Studies, Russian and East European Studies), Italian, Judaic Studies, Latin, Mathema-
XI. PROGRAM CHANGES (Consult the Calendar in this Bulletin for applicable dates mentioned in this section.)
A. Adding a Course

A course may be added to a student's program with the consent of the student's adviser up to that day specified for the session in the academic calendar. For Fall and Spring sessions, the period to add a course begins with the second day of classes and extends to and includes the tenth calendar day following the beginning of classes.
B. Grading Choice

Students may change their grading choice ("A-E" or "S/U") for courses not departmentally designated for " $\mathrm{S} / \mathrm{U}$ " grading during the time designated for adding courses. Changes in grading selection cannot be authorized beyond the day specified as the last day to add a course.
C. Dropping a Course

A student may initiate a course withdrawal and receive a "W" by filing the appropriate form with the Registrar at any time between the last day to add a course and the last day to drop.
Normally, a course dropped before the last day to add will be deleted from the student record.
The instructor responsible for the course may assign a "W" where there is no evidence of attendance since the last day to add.
A student who attends a course after the last day to add, and does not complete the drop procedure, is assigned the appropriate academic grade by the instructor responsible for the course.
D. Withdrawal from the University (See also the section on readmission.)

1. A student dropping an entire course load for a session must process a voluntary withdrawal form with the Office of the Dean of Student Affairs.
2. A student who withdraws from the university without having attended any course meetings for that session has the courses for that session deleted from the academic record.

## Teacher Education Program:

College of Arts and Sciences: Biology, Chemistry, Earth Science, Mathematics, Physics.
School of Education: Business Education or Speech Pathology and Audiology.
4. The Bachelor of Science degree requires 18-24 credits in a second field which is defined as including at least six credits of advanced course work (usually courses numbered 300 or above). The second field may be closely related to, be supportive of, or be totally independent of the major, but the second field must have coherence; it must be unified and make sense. The second field requirements may be combined with the major requirements, but the total not to exceed 66 credits.
5. The Bachelor of Science degree requires 21 credits in professional courses for the candidate desiring State certification in Education.

## C. THE-SECOND-FIELD

1. In addition to second fields available in the fields represented by the majors noted above, students may complete second fields in Computer Science, Education, Journalism, Peace Studies, Women's Studies and Urban Studies.
2. Moreover, within the parameters noted in A. 4 and B. 4 above, a student may develop and complete an interdepartmental second field.

## D. THE DOUBLE MAJOR

Students who elect to declare a major in two departments may do so with the provision that the faculty of the school or college which houses the department from which the student seeks and receives advisement shall recommend the student for his degree. Both majors that the student has chosen and completed successfully will then appear on the student's "Undergraduate Record."
balances one credit earned with the grade of "D" and one credit earned with the grade of "A" balances two credits with the grade of "D".
2. Major and Second Field

A student may fulfill the requirements of a major or a second field or a combined major and second field by earning graduation credit as defined above except that credit with the grade of " D " must be balanced as follows:
a. Credit with the grade of "D" may be used to fulfill the requirements of a major only if balanced by credit with grades of " A " or " B " earned within the major.
b. Credit with the grade of "D" may be used to fulfill the requirements of a second field only if balanced by credit with grades of "A" or " B " earned within the second field.
c. Credit with the grade of "D" may be used to fulfill the requirements of a combined major and second field only if balanced by credit with grades of " $A$ " or " $B$ " earned within the combined major and second field.
G. Residenee

The university requires a degree candidate to earn his last 30 credits in courses completed on this campus or through a program formally affliated with this university.
D. Degree Application

Degree requirements may be completed during any session; the degree will be conferred at the following May commencement. The student must file a degree application with the Office of the University Registrar in accordance with the date specified in the official university calendar. Failure to do so will necessitate refiling for the degree at the end of the following term. A student who has properly applied for the degree will be notified in writing by the Office of the University Registrar if he will not meet degree requirements that session.
E. Degree with Honors

1. University-wide honors are conferred at graduation. A student will be graduated: Cum Laude
tics, Music, Philosophy, Political Science, Psychology, Puerto Rican Studies, Rhetoric and Communication, Russian, Sociology, Spanish, Theatre.
Teacher Education: English, French, German, History, Italian, Latin, Mathematics, Russian, Social Studies, Spanish.
2. The Bachelor of Arts degree requires 18-24 credits in a second field which is defined as including at least six credits of advanced course work (usually courses numbered 300 or above). The second field may be closely related to, be supportive of, or be totally independent of the major, but the second field must have coherence; it must be unified and make sense.
3. The Bachelor of Arts degree requires 21 credits in professional courses for the candidate desiring State certification in Education.

## B. BACHELOR OF SCIENCE

1. The Bachelor of Science degree requires a minimum of 120 credits.
2. The Bachelor of Science degree requires at least 60 credits in the liberal arts and sciences.
3. The Bachelor of Science degree requires $30-42$ credits in a major which has been registered with the Education Department of the State of New York.
a. A major in one of the following

## General Program:

College of Arts and Sciences: Atmospheric Science, Biology, Chemistry, Economics, Geology, Interdisciplinary Studies (Environmental Studies, Computer Science and Applied Mathematics), Mathematics, Physics, Medical Technology.
School of Business: Business Administration or Accounting.
School of Education: Speech Pathology and Audiology.
School of Nursing: Nursing.
School of Social Welfare: Social Welfare.

## Credit and Course Designations

Information concerning specific programs of study may be found by referring to the sections in this bulletin headed College of Arts and Sciences; School of Business; School of Criminal Justice; School of Education; College of General Studies; School of Library and Information Science; School of Nursing; Graduate School of Public Affairs; School of Social Welfare.

## I. UNIT OF ACADEMIC CREDIT

Generally, one credit represents the equivalent of one hour of lecture or recitation or at least two hours of laboratory work each week for one session or the equivalent in honors study.

The number following each course title [e.g. (3)] indicates the credits offered for that course.

## II. SIGNIFICANCE OF THE COURSE NUMBER

Each course offered by the university is assigned a designation and a number according to a plan which is out-lined-below. The specific course designation and number appears in the bulletin directly in front of the course title.

Each course designation consists of three separate units: (1) the school designation; (2) the subject or departmental designation; and, (3) the course number.

1. The school or college offering a course is identified by a single letter as noted below:

A-College of Arts and Sciences
B-School of Business
C-School of Criminal Justice
E-School of Education
G-College of General Studies
L-School of Library and Information Science
N—School of Nursing
P—Graduate School of Public Affairs
R-Regional Cross-Registration
S-School of Social Welfare
All courses listed in the section of a particular school are understood to be preceded by the letter of the school, un-
less otherwise noted. Example: Eng 100, offered in the College of Arts and Sciences, is understood to be preceded by A (A Eng 100); Eng 490, offered in the School of Education, is understood to be preceded by E (E Eng 490).
2. The subject or departmental designation consists of three letters representing an abbreviation for the subject or the department offering the course. Following is a listing of designations assigned by the various schools and colleges:

## College of Arts and Sciences

African and Afro-American Studies, Aas; Anthropology, Ant; Art History, Arh; Art, (Studio) Art; Arts and Sciences, A\&S; Astronomy and Space Science, Asy; Atmospheric Sciences, Atm; Biological Sciences, Bio; Chemistry, Chm; Chinese, Chi; Classical Archaeology, Cla; Comparative and World Literature, Cwl; Computer Science, Csi; Economics, Eco; English, Eng; Environmental Studies, Env; French, Fre; Geography, Gog; Geological Sciences, Geo; German, Ger; Ancient Greek, Clg; Greek \& Roman Civilization, Clc; Modern Greek, Cmg; Hebrew, Heb; History, His; Inter-American Studies, Ias; Italian, Ita; Journalism, Jrl; Judaic Studies, Jst; Latin, Cll; Linguistics, Lin; Mathematics, Mat; Music, Mus; Philosophy, Phi; Physics, Phy; Polish, Pol; Portuguese, Por; Psychology, Psy; Puerto Rican Studies, Prs; Rhetoric and Communication, Rco; Russian \& East European Studies, Res; Russian, Rus; Slavic Languages and Literature, Sla; Social Studies, Sst; Sociology, Soc; Spanish, Spn; Theatre, Thr; Women's Studies, Wss; Yiddish, Yid.

## School of Business

Accounting, Acc; Business Services, Bus; Finance, Fin; Law, Law; Management, Mgt; Management Science, Msi; Marketing, Mkt.

## School of Education

Business Education, Bus; Comparative Education, Com; Curriculum and Instruction, C\&I; Education, Edu; Educational Administration, Adm; Educational Communications, Cmu; English Education, Eng; Foundations of Education, Fdn; French, Fre; German, Ger; Counseling and Personnel, Cps; Health, Che; History of Education, His; Italian, Ita; Latin Education, Lat; Mathematics Education, Mat; Teaching Foreign Languages, Flt; Philosophy of Education, Phl; Physical Education, Pec; Psychology, Psy; Reading, Rdg; Russian, Rus; Science Education, Sci; Social Studies Education, Sst; Sociology of Education, Soc; Spanish, Spn; Speech Pathology and Audiology, Sau; Teacher Education, Tch; Teaching English as a Second Language, Esl; Traffic and Safety Education, Tsp.

College of General Studies
International Programs, Ins

## School of Library and Information Science

Lib

School of Nursing
Nursing, Nur; Nursing Science, Nsc
Graduate School of Public Affairs
Political Economy, Pec; Political Science, Pos; Public Administration, Pad; Public Affairs, Paf.

School of Social Welfare
Ssw

## 3. Course Number

The course number is a three-digit number reflecting the level at which the course is taught and the specific number assigned to the course by the department offering the course. Some courses are given the designation $a$ or $b$ following the number, with $a$ being assigned for the first session and $b$ for the second. The level designations are noted below:
000-099 Non-credit courses
100-299 Lower division courses with 200-299 primarily for sophomores.
300-499 Upper division course with 400-499 primarily for seniors.
500-699 First year graduate courses. Open to seniors with appropriate background, and special permission. See section V,D.
700-899 Advanced graduate courses ordinarily beyond the master's degree.

## College of Arts and Sciences

The College of Arts and Sciences offers the undergraduate degree of Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) to those candidates who complete an approved sequence of courses and study totaling 120 credits and who, by vote of the faculty, are certified as having fulfilled all degree requirements. To complete a major in the College of Arts and Sciences, a minimum of 12 credits of upper division courses ( 300 and 400 level) must be completed in the major in residence at State University of New York at Albany.

All undergraduate courses offered by the College of Arts and Sciences except Bio $400 a$ and $b$ are defined as liberal arts and sciences courses for purposes of degree requirements for the B.A. and B.S. degrees.

Three divisions comprise the college; the Division of Humanities, the Division of Sciences and Mathematics, and the Division of Social and Behavioral Sciences.

All courses in this section are understood to be preceded by the designation " $A$ " unless otherwise noted.

## College-Courses

The College of Arts and Sciences offers several courses designed to facilitate serious independent study and participation in special projects which cannot be undertaken through regular course work. Students interested in the courses described in this section may obtain further information and application forms from the offices of the divisional deans.

Credits earned through these courses may be apportioned in whole or in part as major credit, second field credit, or elective credit, as appropriate, and as determined by the student's major department.

## INDEPENDENT STUDY

A\&S 300 Independent Study (1-4 credits, as approved)
An independent study course with variable credit. Contingent upon the consent of an instructor willing to supervise the study. May be repeated but each registration must be for an approved project. Approval of the college's Interdepartmental Studies Committee required.

A\&S 301 Independent Study (5-15 credits, as approved)
An independent study course designed to provide larger blocks of time for independent study projects. Contingent upon the consent of an instructor willing to supervise the study. May be repeated, but each registration must be for an approved project. Approval of the College's Interdepartmental Studies Committee required.

## SPECIAL PROJECTS

## A\&S 390 Special Projects ( $1-15$ credits, as approved)

Speoial projects involving community activity and collateral study. Contingent upon the consent of an instructor willing to supervise the study. May be repeated, but each registration must be for an approved project. Approval of the college's Interdepartmental Studies Committee required.

## EXPERIMENTAL PROGRAMS

A\&S 350 Experimental Programs (3)
Experimental class, the subject varying with instructors and the term offered. See special announcements of courses to be offered under this heading. Approval of the college's Interdepartmental Studies Committee required.

## Interdisciplinary Majors

The College of Arts and Sciences provides the opportunity for highly motivated sutdents with special educational goals to pursue a course of study in an area not provided for by the current offerings of the university. An interdisciplinary program will usually include course work in several departments as well as independent study in an interdisciplinary field taken under faculty guidance.

Faculty-initiated interdisciplinary majors have thus far been approved in the following areas: Asian Studies, Chinese Studies, Computer Science and Applied Mathematics, Environmental Studies, Linguistics, and Russian and East European Studies. Descriptions of these programs appear in the bulletin in appropriate alphabetical sequence.

Student-initiated interdisciplinary majors offer qualified students an opportunity to design an individual course of study. Individual programs should constitute a well-integrated whole, but need not be in a conventional academic discipline. Students interested in an interdisciplinary major or one of the interdisciplinary second fields described below, may obtain further information and application forms from the offices of the divisional deans.

## Interdisciplinary Second Fields

## (Majors Not Currently Offered)

## JOURNALISM

The interdisciplinary second field in journalism, consisting of courses listed under the 'Journalism' subject designation ( Jrl ) and some offered by various departments, is designed to combine training in journalistic writing and some practical work in the media with a critical study of the role of the media in society. It is intended primarily as preparation for journalistic careers, but its courses- are open to other students. Students wishing to take a second field in journalism will need a minimum of 18 credits in a variety of courses, making their selections to form a coherent body of study adapted to their needs and interests. At least six credits must be in advanced courses (courses with prerequisites or at the 300 level or above). There is only one special requirement for the second field in journalism, skill in writing, to be demonstrated by the end of the junior year by submission of a substantial sample of the student's writing to the academic adviser and the director of the journalism program. The following core courses are_offered:

## Jrl 300 Introduction to Journalism (3)

Exploration of what journalism is, in the work of the press and television and radio. Readings in journalism, discussion with practicing journalists, journalistic writing and writing about journalism.
Prerequisite: consent of instructor.
Eng 301 Expository Writing (3)
VEng 308 Journalistic Writing (3)
"Jrl 365 Journalism: Special Topics (3)
Study of special problems in journalism. May be taken more than once with different content.
Prerequisite: consent of instructor.
Jrl 397 Independent Study in Journalism (1-4)
A project in journalistic investigation and writing or a study of some specific body of journalism, to be sponsored by a faculty member and approved by the director of journalism. May be taken more than once.
Jrl 400 Internship in Journalism (3-4)
For senior students who will work part time for a term with a newspaper or a television or radio station in the area and coordinate their work with the director of the journalism program.
Prerequisite: consent of instructor.

Other courses for the second field may be selected from offerings of various departments, such as Pos 365 Government and the Mass Media, Pos 321 State and Local Government, Pos 426b American Constitutional Law, Soc 255 Mass Media, Soc 281 Criminology, Soc 460 Human Communication, Rco 214 Communication Through Mass Media, Rco 238 Rhetoric of Mass Media, Rco 265 Introduction to Communication Theory, Rco 303 Advanced Speech Composition, Rco 336 Studies in Contemporary Public Address: The Rhetoric of the New Journalism, and independent studies in various departments when the subject involves journalism.

Students with particular interests may take other courses to prepare them for a specialized branch of journalism. Courses in this category include Eco 355 Public Finance, Eco 470 History of the Labor Movement, and relevant courses in environmental studies, the physical sciences, art, music, theatre, and cinema. No more than two courses in this category should be included in the minimum 18 credits for the second field in journalism.

## PEACE STUDIES

The second field of Peace Studies has been established to press the development of interdisciplinary education and research in the problems of violence in international and domestic affairs and the possibilities of non-violent conflict resolution in both spheres. The courses in the field are regular departmental offerings in the physical, biological, social, and behavioral sciences. The basic course is the Peace Studies Forum offered by the Graduate School of Public Affairs. For further information, contact Professor Lester Hawkins in the Graduate School of Public Affairs.

## URBAN AFFAIRS

The interdepartmental second field in urban affairs has a two-fold purpose: (1) to provide an understanding of the development of cities and contemporary urban civilization, and (2) to provide background for those interested in pursuing graduate studies in areas relating to the urban milieu. The courses offered by the disciplines concerned with urban topics range widely. It is therefore recommended that students taking a second field in urban affairs include work from at least three departments. Urban courses are offered
in the departments of African and Afro-American Studies, Anthropology, Art, Economics, Environmental Studies, Geography, History, Physics, Political Science, Puerto Rican Studies, and Sociology. Current course offerings in the urban affairs second field are listed in the Schedule of Classes. A brochure describing the second field and the list of courses available may be obtained in the office of the Secretary of the Urban Affairs Committee, Graduate School of Public Affairs, Room 904, Mohawk Tower. A roster of the Urban Affairs Committee is also available in this office. Members of the committee, including the chairman, Professor Mark LaGory, Room 603-3, Mohawk Tower, may be consulted for guidance in selecting urban affairs courses.

## WOMEN'S STUDIES

The university offers an interdisciplinary second field in women's studies. Wss 200 Perspectives on Women (3) provides a multidisciplinary approach to women in contemporary society. It is designed as an introduction to Women's Studies and to more specialized women's studies courses. Such courses concentrating specifically on women are cur-rently-offered in the-departments-of Anthropology,-Classics, English, Foundations of Education, French, Hispanic and Italian Studies, History, and Rhetoric and Communication (Ant 381; Clc 310; Eng 395; Fdn 405; Fdn 505; Fre 499; Spn 344; Spn 420; His 256; His 293, Rco 465). In addition, the following departments and programs offer applicable courses: Sociology, Economics, French, Puerto Rican studies, and Health, Physical Education and Recreation. Independent study courses are available in various departments.

## Wss 200 Perspectives on Women (3)

$-12 /\{175$
A multidisciplinary approach to women in contemporary society. An examination of women in history under different socio-economic systems, leading to an understanding of the biological, social/ psychological, and cultural image of women. Designed as an introduction to Women's Studies as a discipline and to more specialized Women's Studies courses.

## Wss 210 Introduction to Feminism (3)

A study of the origins and development of feminist thought and of the feminist movement in America, with emphasis on the issues and problems of the contemporary women's movement. Prerequisite: consent of instructor.

## Was 399 Topics in Women's Studies (1-3)

Consideration of topics or issues in Women's Studies selected on the basis of faculty and student interest. May be taken more than once with different content. Consult fall and spring schedules for

## specific topics and prerequisites. <br> Uss 397 Independent Study ( $1-4$ ) [Memo 12/21/: Uss $450^{*}$ Literature of Feminiean: Iuten. Sem. (3) <br> <br> DIVISION OF HUMANITIES

 <br> <br> DIVISION OF HUMANITIES}Ruth A. Schmidt, Dean

Judy Held Miller, Assistant to the Dean
The Division of Humanities of the College of Arts and Sciences offers programs in the arts and the humanities which afford the student opportunities to study the variety of ways in which the human spirit manifests itself, to explore the meaning of human existence, and to consider the role which values play in the examined life. Faculty members welcome the sharing of ideas and participation in common experiences which help professor and student alike to gain new perspectives on what it means to be human.
Fields of study corrently-leading to majors in the-Division of Humanities are Art, Comparative Literature, English, French, German, Greek, Greek and Roman Civilization, Italian, Judaic Studies, Latin, Music, Philosophy, Rhetoric and Communication, Russian, Spanish, and Theatre. Majors in Art with emphasis in Art History, Comparafive Literature, and Italian are being phased out and no degrees in these areas will be awarded after August, 1978. In addition, the Division of Humanities is responsible for interdisciplinary majors with concentrations in Chinese Studies and in Linguistics, and for second fields in Journalism and Women's Studies.

The Edith O. Wallace Humanities Building (dedicated to the memory of the first head of the Division of Humanities) is the home of 9 departments of the division. The Department of Art shares a separate building at the main entrance to the campus with the University Art Gallery, the largest in the State University of New York. The Performing Arts Center, with four theatres and the Recital Hall, is the center of activities of the departments of Music

## FOREIGN LANGUAGE STUDY PLACEMENT POLICIES

Students with previous language experience, private study or high school language study in a foreign language, who wish to continue the study of that language are required to take a placement examination. The results of the examination are used to determine initial student placement in a language course sequence. Students with high school credit will receive credit for successful completion of the courses into which they are placed.

Transfere students ${ }^{-}$and others with college credit ${ }^{-}{ }^{-}{ }^{-}{ }^{-}$ language from another institution must also take the placement examination if they wish to continue the study of that language. If the examination scores suggest placement be: low the level indicated by a student's previous record, he/ she has the option of beginning study at this lower level. However, no credit will be awarded for such repetition or work completed at another college or university,

For further details regarding placement procedures in $\therefore \quad \therefore$ different departments, consult the announcements of individual departments in this bulletin or the appropriate department chairperson.

## DIVISION COURSES

Hum 150 a and $b$ Cultural Diversity and the Human Condition (3, 3)
A humanistically-oriented study of selected cultures and societies, focusing on continuity and change in the following: family; culture and religious values; art and nature; work and play; health-ecologyscience and nature. Team-taught by SUNY-Albany faculty, utilizing guest lecturers and international students as resource persons. The Fall session focuses on India, France, and the African Hausa; the Spring session focuses on China, Guatemala, and Iran. Full year course or either session. (Designed primarily for entering freshmen.) Hemm-250 Freedon + vintrol (3) $7 / 27176$

DIVISION OF SCIENCES ANO MATHEMATICS

Vincent F. Cowling, Dean

## Charlene Lewis, Assistant to the Dean

This division includes Astronomy and Space Science, Atmospheric Science, Biological Sciences, Chemistry, Computer Science, Geological Sciences, Mathematics, and Physics. (The Program in Medical Technology is included in the Biological Sciences Department.)

Specific requirements of the major for undergraduate degrees offered in each department may be found at the beginning of course listings for that department.

The division cooperates closely with some of the university research centers, notably the Atmospheric Sciences Research Center, the Center for Nuclear Radiation Studies (Physics Linear Accelerator Center) and the Neuro-biology Research Center, as well as with certain external institutions such as Dudley Observatory.

## DIVISION OF SOCIAL AND BEHAVIORAL SCIENCES



Richard H. Kendall, Dean
Anne McNamara, Assistant to the Dean
The Division of Social and Behavioral Sciences offers courses and major concentrations through the following departments, studies, and programs: African and AfroAmerican Studies, Anthropology, Asian Studies, Economics, Environmental Studies, Geography, History, Inter-American Studies, Psychology, Puerto Rican Studies, Russian and East European Studies, Social Studies, and Sociology. Speeifie-major-requirements-are_outlined_at the beginning of the course listing for each department or studies program.

## DEPARTMENT OF AFRICAN AND AFRO-AMERICAN STUDIES

FACULTY: V. Buck, G. Collier, I. Gambari, H. Ododa, F. G. Pogue, P. Royster, L. R. Salkever, S. Spellman, K. Spurlock, J. S. Uppal, P. Ward, M. M. Weston, N. Wright, Jr.

The objective of the department is to provide a multiand an interdisciplinary education in African and AfroAmerican Studies and related fields. Students are expected to possess the knowledge and skills necessary to understand the social, political, economic, psychological and historical consequences of institutional arrangements as they affect the life experiences of African and Afro-American people.

Students are prepared for careers in teaching, counseling, state and local social welfare programs, urban planning, administrative program direction, and international relations.

The department offers full programs leading to the B.A. and M.A. degrees. Students may specialize in African Studies and Afro-American Studies. Sub-areas in African Studies are: the history, economics, politics, and culture of the following regions: Eastern Africa, Central Africa, West Africa, and Southern Africa. Sub-areas in Afro-American Studies include: Afro-American History and Culture, Urban Economic Development, Central City Politics and Institutions, Afro-American Literature and Criticism, and Urban Planning. Though the major concentrations are Africa and the United States, students may design pro--grams which-will enhance their knowledge-of other black cultures, e.g., the Caribbean, Haiti.

## Special Programs or Opportunities

Undergraduate and graduate students in the department are provided an opportunity to apply theory through community projects, both through formal courses and such other special programs that may be designed by the department. Students participating in the latter may work directly with New York legislators or legislative committees. Students are also provided an ongoing colloquium series featuring local and nationally known African and AfroAmerican scholars. The senior seminar enables students and faculty to meet to explore common research interests. A number of graduate courses are available to qualified seniors.

## Degree Requirements for the Major in African and Afro-American Studies

## General Program

B.A.: A minimum of 36 credits (at least 12 credits of which must be at the 300 level or above) including Aas 142, Aas 219, Aas 221 or Aas 222, Aas 286 a and b, Aas 322 , or Aas 490 . The additional Department courses, as advised, must include six hours of credit at the 200 -level and nine hours of credit at the 300 -level or above.

## Aas 101 Elementary Swahili (3)

Beginning course with audio-lingual approach. Fundamentals of language structure and sounds, with emphasis on pronunciation and oral expression. Graded readings. Classes meet four times a week plus two required periods in the language laboratory.

## Aas 110 The Black Theatre in America (3)

A study of the historic background of black involvement in the American theatre and of the role and functioning of the Black Theatre in contemporary American society.

## Aas 142 African and Afro-American Literature (3)

A survey of black authors from diverse cultures and an analysis of their relationship to black thought.

## Aas 213 History of the Civil Rights Movement (3)

The historical development of the major civil rights movements in the United States, their linkages and disparities. The course examines the historical development and concrete manifestations of resistance movements to the institutional definitions of black people both antebellum, post civil war, and contemporary.
as 219 Introduction to African and Afro-American History (3)
A survey of the cultural and historical background of AfroAmericans from their African heritage to their present role in Amerifan society. Not open to students with credit for His 419.

## Aas 221 The Economic Structure of the Black Community (3)

An analysis of old and contemporary modes of black entrepreneurshiip and formal economic organization and its effects in the community.

## Aas 222 Politics of Black Power (3)

The theories and current trends relating to the development of more extensive and effective control of those institutions that influ-ehee-the-lives-and-destinies-ef-black-people.

## Aas 224 Cities as People: America in the '70's (3)

The impact of the urban environment on the individual and group life of those minorities locked into the urban situation. Census tract data, community specialists, and work projects in the inner city will be used to develop skills in predicting and understanding individual life styles.

An exploration of the socio-psychological variables involved in the production and maintenance of attitudes of bigotry and racism; their effects and means of change. Prerequisite: Psy 101 or Soc 260.

Aas 243 Musical Traditions Among Afro-Americans (3)
The underlying concepts of forms of Afro-American musical expression. Aas 244 Black womeh In Amuri

A survey of major black artists from diverse cultures and an examination of their work as a manifestation of cultural expression contemporary for their time.

## Aas 286 a and b (His 286 a and b) History of Africa (3, 3)

First session: Africa from pre-historic times to 1800 with emphasis on sub-Saharan Africa, the development of indigenous states, and their response to Western and Eastern contacts. Second session:

Africa since 1800: exploration, the end of the slave trade, the development of interior states, European partition, the Colonial period, and the rise of independent Africa. Either session may be taken without the other.

## Aas 301 (Prs 301) Puerto Rico and the Caribbean (3) <br> (Same as Prs 301.)

## Aas 311 History of Slavery in the Western Hemisphere (3)

A study of the institution of slavery and its effects in the Western Hemisphere, its origins, bases of continuance, and contemporary residuals. Prerequisite: His 100 a and b; His 366 a and b recommended.

## Aas 320 Black Nationalism: Political Perspective in Africa (3)

A survey of the socio-political and cultural developments of contemporary African nations. Prerequisite: His 286 b or Aas 222.

## Aas 321 Black Nationalism: Political Perspective in the United States (3)

The emergence of black ideology in the United States with emphasis on current trends in socio-political and cultural unification of black Americans. Prerequisite: Aas 219.
Aas 322 Developing African Nations (3)
A systems analysis of the contemporary social, political, cultural, and economic institutions crucial to the economic maturation of developing African nations.
Aas 330 Crisis in Black Identification (3)
Psychodynamic analysis of the formation of self-concept and processes of identification_as related to the_black-experience.-Pre requisite: Psy 101 or Soc 260.

## Aas 331 The Afro-American Family (3)

An in-depth study of the Afro-American family as an institution, the dynamics of intra-family relations and the effects of social institutions on black family life. Prerequisite: Soc 115.

## Aas 333 Problems in the Black Community (3)

A selective study of relevant social problems including drug addiction, prostitution, and extortion, particularly as they affect the black community. Prerequisite: Aas 231 or 221.

## Aas 340 The Black Essay (3)

A study of essays written by black American writers in the 19th and 20th century.

## Aas 341 Black Religion (3)

An analysis of the relationship of the religion of the black man to black culture.

## Aas 342 (Ant 342) Sub-Saharan Africa: Peoples and Cultures (3)

Culture-areas of Africa south of the Sahara. Historical and geographic background studies of selected societies. Culture change and contact during the colonial and post-colonial periods.
Aas 343 Black and Colored Identity Patterns (3)
An explication of identity patterns and the philosophical stance of
selected contemporary black American, Latin-American, African, and Asian authors.

## Alas 345 The Black Novel: Black Perspectives (3)

A systematic study of the novel written by black Americans from the Harlem Renaissance to the present. The novels studied will express the cultural, political and socio-historical consciousness of the writers to demonstrate their awareness of the struggle of black

A critical study and field investigation of black institutions in the central city including civic, social, fraternal, and religious groups.

Ass 416 History of the Black Man in the Reconstruction Era: 1862-1876 (3)
An analysis of the political, social, cultural, and economic factors relating to the position of blacks in the Reconstruction Era.
Prerequisite or corequisite: His 308.
Has 417 Senior Seminar in African and Afro-American Studies (3) Prerequisite: consent of department chairman.
Alas 419 (His 419) Afro-American History (3)
 Black Community (3)
An analysis of factors related to success and failure of governmental_programs_in_meeting_the_needs_of_ethnic_minorities, their objectives and consequences, with particular reference to black people. Prerequisite: Alas 221 or Alas 222.
Has 330 Black Soc. 4 Pol Thought in the Americans (3) $12 / 77$ Ans 431 (Prs 431) The Third World Concept (3) pevemg

An investigation of the ideologies and nationalistic bonds centering on the black and colored peoples of the world. Prerequisite: Alas 219.
Ass 432 Community Development and Organization (3)
An internship program in which students actively participate in organizational work within the community under faculty supervision. Prerequisites: Alas 221 or 222, and 333.

Alas 433 Pan-Africanism: Its Extension to "Afro-Americanism" (3)
A study of the development of the concept of negritude and its impact upon the emergence of black ideology. Prerequisite: His 286 b Radius blacks the Amer. Pol. Process (3) $12 /{ }^{2} 7 \mathrm{mmp}$


## System (3)

(Same as Prs 450.)
Adas 490 Independent Study in African and Afro-American Studies (3)
Independent reading or research on a selected experimental, theoretical, or applied problem, under the direction of a faculty member. May be repeated for an additional three credits upon recommendation of the faculty supervisor and with approval of the department chairman. Prerequisite: consent of department chairman.

## DEPARTMENT OF ANTHROPOLOGY

FACULTY: L. Campbell, R. Carmack, W. Fenton, P. Furst, G. Gmelch, B. Isbell, R. Jarvenpa, G. Klima, F. Lees, D. Snow, D. Wallace, R. Wilkinson, M. Williams, G. Wright, W. Zenner.

The objective of the department is to provide students with an understanding of the broad range encompassed by anthropology in its study of human cultural behavior and its biological base, including both content and the methodological and theoretical bases involved. The subfields of ethnology, biological anthropology, anthropological linguistics, and prehistoric archaeology are well represented in the course offerings.

## Special Programs or Opportunities:

Summer programs in ethnological and archaeological field work are available with the local area and Guatemala the most frequent locations. Courses in ethnological filmmaking and linguistics, using native American language informants, are special opportunities. Laboratory/research experience, both in formal courses and as independent projects, is available in archaeology, biological anthropology, and linguistics.

## Degree Requirements for the Major in Anthropology

## General Program

B.A.: A minimum of 36 credits ( 30 credits in Anthropology and six credits as advised) including one course from each of the following four groups: Biological Anthropology (Ant 210, 310-19, 410-19), Linguistics (Ant 220, 320-26), Archaeology (Ant 230-231, 330-339), and Ethnology (Ant 200, 360-379, 460-479); 18 additional credits of Anthropology (excluding Ant 100).

## Ant 100 Culture, Society, and Biology (3)

An examination of the interaction of culture, society, and biology as causative factors for behavioral patterns among human groups. A survey of the anthropological approach to human behavior, emphasizing the integrative aspects of the sub-disciplines of ethnology, bio-anthropology, archaeology, and anthropo-linguistics.

A survey of the theory, methods, and goals of cultural anthropology, emphasizing the nature of culture and the varied forms in which it is expressed among the peoples of the world.

## Ant 210 Introduction to Biological Anthropology (3)

A survey of the field of biological or physical anthropology, in. eluding human evolution, race, inheritance, and primate studies.
Ant 220 (Lin 206/Eng 206) Introduction to Linguistics (3)
Same as Lin 206 or Eng 206.

## Ant 230 Introduction to Prehistoric Archaeology (3)

The techniques of recovering archaeological data; methods of interpreting the data and reconstructing culture history; the theory and goals of archaeology.

## Ant 231 Survey of World Prehistory (3)

Presentation and analysis of the major events in human prehistory up to the early civilizations; the role of diffusion and ecological and evolutionary theories in the explanation of the trends and regularities in these events.
Ant 250 (Soc 250) The Family (3)

## Same as Soc 250.

Ant 280 (Soc 223) Introduction to Social Research (3)
Same as Soc 223.

## Ant 311 Introduction to the Primates (3)

A survey of the basic morphology and behavior of non-human primates. The prosimian and anthropoid primates will be studied in terms of their comparative morphology and behavior, with reference to these same features among humans.
Ant 312 History of Human Evolution (3)
The development of evolutionary thought as it relates to concents in physical anthropology, such as interpretations of the fossil record, primate behavior and racial concepts, with emphasis on 18th, 19th, and 20th century developments. Prerequisite: Ant 210. 1 Intro. to

## Ant 320 (Lin 320) (Phonology (3)

An-intreductions te the analysis of sourdesystems. This course will
 distinctive feature analyses. Prevequisiter-Ant 220 .

## Ant 321 (Lin 321) Morphology-Syntax (3)



This course will emphasize the techniques for the analysis and description of the grammatical systems of languages. The structural and tagmemic approaches will be used. Prerequisite: Ant 220.
Ant 322 Middle American Linguistics (3)
A survey of Middle American Indian languages, their classification, description, and their implications for Mesoamerican prehistory. Includes consideration of the current state of research in the several language families, areal characteristics, linguistic diffusion, and proposals for distant genetic relationships. Prerequisite: One perevious course in linguistics or consent of instructor.

## Ant 325 Sociolinguistics (3)

Introduction to the study of language as a social phenomenon. Includes basic sociolinguistic concepts, interactional sociolinguistics, social dialects, Black English, diglossia, bilingualism and bilingual education. Prerequisite: Ant 220 or consent of instructor.

Introduction tot the aims of orfiehistoric archatology and a syrvey of the methods by whictrothese aims are realized. Sumftrer session only)" Prerequisite: Ant 230 or consent of instrutor.
Ant-828 - Introduglion fo-Archaedogical-taboratory Techitiqures (2)
Survey and practical applicition of teobrtyfutes for analyzing and classifyifg chipped stone and ceramits, in part using the materids excavated during the precedifig field sessitin; also teenfiques of artifact typology and settlement analysis. Prerequisite: Ant 230.

Directod archaelogioaty excavation of selectedarttes, including experienice in sitedocition, matping, excavation, presexvatron, apalym Tis, classifiontion, andntiterpretationt" Prerequisite? consent of department chairman. (Summer Session only.)

## Ant 330 Old World Prehistory (3)

The prehistory of Africa and Eurasia from the Palaeolithic through the beginnings of agriculture.
Ant 331 Early Civilization of the Old World (3)
The development of urbanism and the preindustrial city out of farming village life; an analysis of the nature and content of the early civilizations of the Near East, Egypt, the Indus, and China; and the spread of civilization into Europe and Africa and its effects on peripheral peoples such as the nomadic peoples of the Eurasian steppes.

## Ant 332 Eurasia and Clivilization (3)

The rise of agricultural and pastoral communities and later of mixed farming and mounted nomadism as ecologically distinct economies. Analysis of indigenous factors and those linked to contemporaneous classical urban cultures. Persistences in later Celtic and Viking culture.
$V_{\text {Ant } 333}$ Meso-American Prehistory (3)
Developments leading to the rise of civilization in pre-Columbian Mexico and Guatemala; ethnohistory of the Maya and Aztecs. Prerequisite: Ant 230.

Ant 334 South American Prehistory (3)
Development of the pre-Columbian hunting and farming groups of South America, with emphasis on the rise of civilization in the Andean area and ethnohistory of the Inca. Prerequisite: Ant 230

of Mexico. Prerequisite: Ant 230.

37 Northeastern North American Prehistory (3)
An examination of the cultural complexes and sequences of Northeastern United States from time of earljest occupation to Ant $338^{3}$ rnerch Forf( Reseurch (6) * Ant 339 Infro
/The nature and distribution of North American Indian cultures from the pre-Columbian period to the present.
Ant 341 a The Caribbean and South America:
Peoples and Cultures (3)
Prehistory, cultural background, and the present economic, social and religious life of selected Indian, Mestizo, and Euro-American groups in the Caribbean and South America.
$\sqrt{\text { Ant } 341 \mathrm{~b}}$ Meso-America: Peoples and Cultures (3)
Prehistory, cultural background, and the present-day economics, social and religious life of selected Indian and Mestizo groups in Mexico and Central America.
$\sqrt{\text { Ant } 342 \text { (Aas 342) Sub-Saharan Africa: Peoples and Cultures (3) }}$
Culture-areas of Africa south of the Sahara. Historical and geoi graphic background. Studies of selected societies. Culture change and contact during the colonial and post-colonial periods.
Ant 343 The Middle East: Peoples and Cultures (3)
The main features of the "Middle Eastern culture continent." A comparison of selected societies in Southwest Asia and North Africa. The impact of modernization on pre-industrial cities and peasantries $i n_{\text {, }}$ the area.
Prerequisite: Ant 200 or His 382 a or b.
Ant 344 South Asia: Peoples and Cultures (3)
Studies of selected peoples in the Indian sub-continent considered against the background of Hindu and Muslim civilization. Social and cultural change in the modern period.
Ant 345 Southeast Asia: Peoples and Cultures (3)
A survey of the historical background and present-day developments of the cultures of Indonesia, mainland Southeast Asia, and the Philippines.
Prerequisite: consent of instructor.
Ant 346 East Asia: Peoples and Cultures (3)
1 A survey of the cultures of East Asia; civilizations and tribal cultures.

## Ant 347 Oceania: Peoples and Cultures (3)

A survey of the cultures of Micronesia, Melanesia, Polynesia, ard Australia.
Ant 360 Social Anthropology (3)
Comparative study of social systems, tribal, traditional, and modern societies. The course will deal with economic, kinship, political, and other aspects of social structure. Social systems will be studied in functionalist, evolutionary, and dialectic perspectives. Combines in one course kinship, political, economic, and stratificational anthropology.

Ant 363 Ethnology of Religion (3)
An examination of the form and functions of ritual systems as related to myth and world view on a cross-cultural basis. The emphasis will be on the religions of nonliterate and peasant peoples.

## Ant 364 Anthropology of Health and Health Care (3)

Cross-cultural introduction to different systems of theory and practice in health, disease and curing; Function of shaman, curandera and modern medical worker in traditional societies and ethnic groups; case studies in the integration of traditional and modern systems of medicine.

## Ant 366 Ethnology of the Arts (3)

The comparative study of selected aspēcts of the arts as cultural products. Aesthetic views in non-Western societies.

## Ant 367 Ethnographic Film (3)

Comparative analysis and experimental use of ethnographic film in anthropological education. A study of theory and method of data collection and communication of ethnographic field work through the medium of film.
$\sqrt{ }$ Ant 368 Ethnology of Pre-Columbian Art (3)
The anthropological study of prehispanic Mesoamerican and South American ceremonial arts and architecture for the reconstruction of pre-Columbian culture history, religion, symbolism and ritual. Stress is laid on interrelationships of New World cultures, art styles and world view and on ethnographic and other techniques for iconographic-interpretations

## Ant 370 Culture Contact and Ethnicity (3)

An analysis of culture change in the contact situation; emphasis on interaction between Euro-American culture and peoples of the non-Western world. Prerequisite: Ant 200.
/Ant 372 Urban Anthropology (3)
An introduction to urban anthropology. Emphasis on rural-urban migrations, adjustment and assimilation of urban migrants, urban kinship and family structure, poverty culture, rural-urban typologies, and the application of anthropological methods to the study of arban societies. Prerequisite: Ant 200.

## Ant 375 Psychological Anthropology (3)

A survey of the field of culture and personality; cross-cultural analysis of the cultural factors affecting the development of the individual personality; the concept of cultural relativism as applied to social analysis. Prerequisite: Ant 100 or Ant 200 or Soc 115 or Psy 101.

Ant 381 Ethnography of Women (3)
Female status and role in non-industrial societies.

## Ant 411 Human Evolution (3)

An examination of the human fossil record and of the major theories dealing with fossil record. Prerequisite: Ant 210.

Ant 498 a and b Independent Study in Anthropology (1-6), (1-6)
Independent reading or research on selected topics under the firection of a faculty member. May be repeated for credit.
Ant 499 Senior Seminar in Anthropology (3)
Seminar on selected topics in Anthropology. Open to seniors with consent of instructor. Recommended for majors planning on graduate work, May be repeated for credit.

## DEPARTMENT OF ART

FACULTY: D. Byng, R. Callner, R. Cartmell, E. Cowley, M. Greenwold, A. Lennig, N. Liddle, D. Mochon, T. O'Connor, R. Stankiewicz, M. Walker, W. Wilson, J. Wisniewski.
The Department of Art develops artists who have a strong understanding of aesthetic criticism and who achieve technical excellence. The program provides lecture and studio experience for students with broad interests in the Humanities. By presenting a wide variety of exhibitions, the University Art Gallery furthers all of these interests.

## Degree-Requirements-for the-Major-in-Art (with emphasis in Studio Art)

## General Program

B.A.: Thirty-six credits, including at least 12 credits at the 300 level or above, to be distributed as follows: 27 credits as advised from studio courses in Art; nine credits from Art lecture courses in Art or Art History. (A portfolio must be submitted before a student may be officially recognized as a major in Art. The portfolio must be presented by the close of the sophomore year.)
Art $105 a$ and $b$ Drawing $1 a$ and 1b $(3,3)$
Drawing with a variety of media. The second session emphasizing drawing the human figure. May be taken either or both sessions A must be taken before $b$.
Art 110 a and b Design $(3,3)$
The principles of two-and three-dimensional design. Intended primarily for axt majors and minors. May be taken either or both sessions. a must be taken before b.
Art 120 Materialo t methodo caithe Aculpture Sfudio (3) $\lambda$
Art 220 a and b Sculpture I $(3,3)$
Instruction in the use of traditional and modern sculpture mediums. Prerequisite: Art 110 or equivalent. May be taken either or both sessions.
discussed: Latin America, Middle East, Sub-Saharan Africa, Southeast Asia. May be repeated for credit. Prerequisite: One course in either Anthropology, History, Political Science, or Sociology dealing with the culture area under topic consideration. F Ethnicity


Ant 465 (Jst 465) Jewish Communities (3)
Ethnological and social analysis of traditional and modern Jewish communities in Europe, the Middle East, and the New World. Relationship of Jews with their non-Jewish neighbors and with other Jewish communities. Comparison of Jewish communities with other minority and majority ethnic groups- (e.g.; Chinese -in -Southeast Asia; Hindus and Pakistanis in Africa). Prerequisite: Ant 370 or Soc 282 or any Judaic Studies course in history.

Ant 466 The Ethnology of the Maya Culture (3)
A study of the origin, development, decline, conquest, and persistence of Maya culture. Maya culture will be studied through both its social and semantic systems, based on archeological, ethnographic and ethnohistoric sources. It will be analysed as ecological adaptation, evolutionary stage, philosophical and intellectual achievement, changing socio-political system. Prerequisite: senior or graduate standing; some knowledge of Spanish (minimal reading ability); prior course on Middle American Culture; or consent of instructor.

## Ant 468 Aspects of European and North American Cultures

Survey of community-studies in Western Europe and North America. Cultural variety in Europe and its differential influence on North America. Socio-cultural change and modernization in rural communities. Relationship between community and state. Prerequisites: Ant 200 and one upper division course in anthropology, sociology or history.

Ant 470 Cross-cultural Problems in Education (3)
A study of anthropological concepts in education and a crosscultural survey of the nature of the educational process. Special reference to situations where there are cultural differences between the teacher and student in the United States.

Ant 480 Introduction to Ethnographic Field Research (6)
Ethnographic field work experience for qualified undergraduates. Study of field work methodology and principles together with actual field work on selected topics under faculty supervision. Prerequisite: consent of instructor.

## Ant 481 (Prs 491) Research Projects (3-6)

An introduction to basic research skills required to answer questions on human behavior, with special emphasis on cross-cultural communication and learning and dynamics of cross-cultural interaction. Students will be involved in a specific research project and this will provide them with the basic research methods to include data collection, processing and analysis. Prerequisite: junior or senior standing and consent of instructor.

## Art 347 Advanced Photography (3)

A continuation of Art 244 a and b with emphasis on refinement of image and technique. Students must have his/her own adjustable camera. Prerequisite: Art 244 a and b.

## Art 348 Color Photography (3)

A course utilizing transparency and negative materials in color photography with emphasis on color printing. Prerequisite: Art 244 a and b or the consent of instructor. Art 110 recommended.

## Art 350 Art Criticism (3)

A seminar taught by the Art department staff with guest artists and critics. Analysis of the attitudes found in 19th and 20th centory criticism of the visual arts. Focus on the development of personal judgment. Prerequisite: six credits of art history.

## Art 352 (Env 352) The Environment as Art (3)

The understanding of art as environment as well as environment as art; the artist and the conditions of his obligation to society; a continuing analysis of what is, what could be, and what must be. The idea of art made for posterity the question of recycling and AF 3 of art Art of American Silent film (3) (3) $2 / 3 / 77$ Art 396 Cinema of the 30's (3)

A close examination of the techniques, devices and style of the sound film in Europe and America during the 1930's. Prerequisite: A 290.
Art -3 ${ }^{8} 8$-Great-Cinema-Directors-(3)
$2 / 3 / 77$

A-ctose-amadysis-of-the-aesthetic-primeiples, writings,--inftuences, and filmed the lending -motion picture directors- Prerequisite: ATT 290.

Axis 399 The-Axl-ot-the-Sitent Pith (3) ${ }^{-}$


A close examination of the techniques, devices seameterstres-of-the
 Prerequisite: Ant zoo.
Art ala ArchHeetural-Designe 3 ) Delete Tall 77
Fundamental relationships between space, form, structure, füncdion and needs of man. Case study projects in the design of buildngs. Design development through architectural drawings, and models. Prerequsite. Consent-of-imetruetor.

## Art 420 a and b Sculpture $11(3,3)$

Advanced course in sculpture. Prerequisite: Art 220 a and b. May be taken either or both sessions.

## CArt 421 a and b Sculpture Workshop (3, 3)

Studies in sculpture with an emphasis on individual criticism for students of varied technical and aesthetic backgrounds. Prerequisite: Consent of instructor and Department Chairman.

Delete Fall 77 Advanced course in ceramics. Prerequisite: Art 226 a and 1 b , angl consent of instructoredray be taken either or both sessions.

## Art 230 a and b Painting I $(3,3)$

A stuclio course in painting; instruction in the use of traditional and modern techniques of composition in painting.
Prerequisites: Art 105 a and b and 110 a and b or equivalent. May be taken either or both sessions. a must be taken before b.

Art 240 a and b Graphics: Etching (3, 3)
A studio course using processes of graphic reproduction with a concentration on etching. Prerequisite: Art 105 a or consent of instructor.

## Art 242 a and b Graphics: Lithography (3, 3)

A studio course using processes of graphio reproduction with a concentration on lithography. Prerequisite: Art $105^{-}$a or consent of instructor.

Art 244 a and b Fundamentals of Photographic Art (3, 3)
Photography as a fine art. Principles of photographic composition and technical means for achieving tone and texture. Analysis of important work by representative studio and candid photographic artists. Prerequisite: consent of instructor. Art 110a recommended. a must be taken before $b$.

## Art 290 Introduction to the Cinema (3)

A survey of the silent and sound classics of the cinema with emphasis on the changing conceptions of cinematographic form and content. Screenings of selected European and American films.
Art 300 at 6 Techniqueso of Painthg $(3,3)(2 / 3 / 77)$
Art-305-a-and-b-Drawing-Ha-and- $\mathrm{Hb}-(3,-3)$
Primary emphasis on developing an individual approach in drawing. Prerequisite: Art 105 b . May be taken either or both sessions.

#  

Three-dimensional and structural design. Emphasis on the creative use of materials, color, light and movement. Prerequisite: Art 110 a and b .
Art 333 Stained Glass and Mosaic (3)
Experience with the techniques and processes used in the design and execution of stained glass or mosaic objects. Functional application of designs will be stressed. Prerequisite: Art 105 a and b; Art 110 a and b.

## Art 340 a and b Serigraphy (3, 3)

A basic course in serigraphy covering both direct and photographic processes. Prerequisite: Art 240a, Art 244a, and consent of instructor.

Seeing and thinking in cinematic terms, with an introduction to the process and equipment with which the film-maker works. Cameras, lenses, film emulsions, and editing procedures are studied in the making of short silent films. Prerequisite: Art 290, or Rco 238 and consent of instructor.

## Te

 A non-chronological study of architecture: approaches and sols $\mathrm{l}_{1}$ Ins to the interrelated problems of beauty, function, and dactur presented in architecture today and the
 escoes, and illuytuted ncmusoripts.

An introduction to the arts of primitive peoples in Negro Africa, ceania and North America. While examples of architecture and

- $261 a+b$ MeluevalART vil $(3,3)$ taut 7

Architecture, paring, sectpture, and minor ants fyomeqno
sowenth-te-the- 15 tr Centuries. Prerequisite: Arhrit50-8
Aah 271 a + Kemansance Ant I TI $(3,3)$ Fell 77
Arb 270 Baroque-Art(3)
Painting and sculpture in Italy, Spain, France and the Low
as Garavaggio, the -Carracci, Bernini, Poussin, Velazquez, -Rubens and Rembrandt. Prerequisite: Arb 150 b or consent of instructor.

Ah 272 Italian Renaissance Art (3)
Painting and sculpture from-the early Renaissance through Mannerism, and its influence" abroad. Prerequisite: Arch 150 a.

Af h 280 Rocgeo to Revolution (3)
De rete Fall 77
Painting/and sculpture in Italy, France, England, and Spain in the 18 th century with some attention to their architectural settings. Artists emphasized will be Tiepolo, Batoni, Canova, Watteau, Fragonard, Greuze, Houdon, Reynolds, Hogarth and Goya. Ere retytite: Arg 150 b or consent of the instructor.
Ar 281 a tb Barcigue Rococo At It Il $(3,3)$
Art 285 American Art (3)
A survey of painting and sculpture in the United States from
1660 to 1940.
Prerequisite: Arh 150 b.
Ah 288 -American-Architecture (3)
Architecture in America from colonial times to the present
P Aerequisite: Ar 150 a and architecture.
Ah 292 Introduction to Modern Art and Architecture (3) Fall
A survey of European architecture, painting, and sculpture firm 1780 to the present.
Prerequisite:Aublinaboriconsent of instructor. $\qquad$

## Art 435 a and b Painting Workshop $(3,3)$

Studies in painting emphasizing individual criticisms for students of/varied technical and aesthetic backgrounds. Prerequisite: Consent of instructor and Department Chairman.

## Art 440 a and b Advanced Graphics: Intaglio (3, 3)

Advanced course in printmaking with an emphasis on intaglio process. Prerequisite: Art 240 a and b.

Art 442 a and b Advanced Graphics: Lithography (3, 3)
Advanced course in printmaking, with an emphasis on lithoAraphic processes. Prerequisite: Art 442 a and bece 70 pico un Cemevol (3) $[2 / 3 / 77]$ Art 497 Independent Study (1-4)

Studio project in a selected art area.
Prerequisite: Consent of instructor and Department Chairman. May be repeated with the approval of the department.

## PROGRAM IN ART HISTORY*

FACULTY: L. Andrew, D. Donaldson, M. Frinta, A. Harris R. Kinsman

ASSOCIATE FACULTY: J. Overbeck
The objective of the department is to make students aware of the values for the humanities by systematic study of the history of Western art, starting with the ancient Near East. The undergraduate is exposed to a broad coverage of the various phases.

## Degree Requirements for the Major in Art (with emphasis in Art History)*

B.A.: Thirty-six credits, including at least 12 credits at the 300 level or above, to be distributed as follows: nine credits in 150 a and b and Arh 498. Three credits in each of five areas (classical, medieval, renaissance, baroque and rococo, and modern). Twelve credits freely selected from art history and/or classical archeology.
Arh-120 Art-History and-Music (3)


In-thowesternworld offered in summer-anly
Arh 150 a Survey of Art in the Western World I (3)
Sculpture, painting, and architecture from the earliest times to the Renaissance.

[^1]course. Actual works by many of the world's leading masters o contemporary art will be studied in the setting of a modern officebuilding and culture-center complex. Prerequisite: Arb 150 b for consent of instructor


Developments in the art of Europe from the eighth through 11 th century surveying mainly Carolingian and Ottonian Art. Aspects of artistic developments in England, Italy, and Spain will also be considered.
Prerequisite: Arh 150 a or consent of instructor.
Art 456 Romanesque Art (3)
An examination of regional schools of architecture, manuscript illumination, the "minor arts," and the reemergence of sculpture, from the second half of the 11 th through the 12 th century. Prerequisite: Arh 150 a or consent of instructor.

## Ah 465 Italian Renaissance Sculpture (3)

Emphasis on Tuscan sculpture from Donatello to Michelango. Prerequisite: consent of instructor.

Aah 466 Venetian Art (3)
A study of Venetian painting and sculpture from the late Middle Ages to the Rococo period. Special emphasis will be placed on the major painters of the Venetian Renaissance. Prerequisite: consent of the instructor.

Arb 470 Northern Baroque Painting (3)
A study of 17 th century painting in northern/Europe, emphasizing the contributions of Flemish and Dutch masters. Prerequisite: Arb $\$ 70$ or consent of instructor.

## Art 472 European Landscape Painting: 1400-1700 (3)

The development of landscape painting in Italy, France, Ger many, and the Low Countries in the Renaissance and subsequent developments in the 17 th century. Thematic developments and individual contributions will be considered.
Prerequisites: Arb 150 b and one other art history course in the Renaissance-Baroque area.

A study of architecture since/Worldw War II-its problems, theories and forms surerequisifernarh 375 ormensent of the instruteryy 20 cent Architecture (3) Ah 476 The Literature of Art /1450-1800 (3)

An introduction to the literary sources of art history-artists' letters, journals, biographies of artists and art criticism. Sources us fd will be selected from the following: Leonardo's Notebooks, Michelangelo's Letters, Rubens' Letters, Vasari's Lives, Bellori's Lives, Reynolds' Discourses and later critical reactions to art of the period covered. Prerequisite: enrollment limited to advanced art history majors with consent of instructor.

## Arh-302-Ancient-Near-EastermArI(3)



Architecture, sculpture, and painting of Egypt, Mesopotamia, andrelated-areatis
Arh 358 S Sothio Artahd Anchitecturer (3) $+E$. (ant, Earope (s)
The origin of Gothic art in France, as studied through the arch tecture and sculpture of the cathedrals, and variants in other-Eurd pean countries. Also included will be-mstañed glass, miniatures, panel and mural painting Prerequisite:-An 150 a or consent of instruetor.

## Arh 364 Northern Renaissance Art (3)

Painting and sculpture in the Netherlands, France, and Geimany
the 15th and 16 th centurfes. Prerequisite: Ach 150 a.

A chronological study of the significant styles and form in archiz
 century.
Hrerequisite: Arh 150 a or b.

## Arh 371 Northern Baroque Art (3)

Painting and sculpture in France, England, and the Low Countries in the 17 th century. Rubens, Van-Dyck, Hals, Rembrandt, Georges de la Tour, Champagne, Puget and Lebrun will be stressed as well as the development of portraiture, still life, landsoape and genre painting in Holland. Prerequisite: Arh 150 b or consent of the instructor.

## Arh 372 Southern Baroque Art (3)

Painting and seflpture-in-Italy-and-Spain-in-the-17th_century.
The course will emphasize Caravaggio and his followers, the
Carracci and their successors in Italy: Bernini, and baroque sculpture, Poussin, Claude, and landscape painting; Ribera and contacts between Italy and Spain; and Velazquez and court art in Spain Prorequisites: Arh 150 b or consent of instructor.

Arh 375 Modern Architecture (3)
A survey of important trends and characteristios of architecture beginning with the late 18 th century. Prerequisite: Arh 150 a or b .

## Arh 377 Architecture of the Albany Area (3)

A study of the major architectural monuments of the MohawkHudson area from the colonial era to the 20 th century, with par thcular emphasis upon distinctive regional styles, buildings, etc., which have contributed to the shaping of American architecture, anduthe development of the City of Albany.

## Arh 390 Contemporary Art (3)

A critical analysis of painting and sculpture in Europe and the United States since 1940. Prerequisite: Arh 150 b , or consent of instructor.

Arh 392 -Contemporary Art at Empire State Plaza (3)
The outstanding collection of contemporary painting and sculptureat Albany's new Empire State Plaza prowides the focus for this

## Degree Requirements for the Interdisciplinary Major with a Concentration in Asian Studies

## General Program

B.A. East Asian Track: Core Curriculum: His 176 a and b; an independent study course in a field of Asian Studies, in one department, resulting in a senior essay, three credits. Two years of Chinese language, 16 credits. Study on East Asia from three disciplines other than Chinese language, 15 credits. Total, 40 credits.

South Asian Track: Core Curriculum: His 176 a and b; and independent study course in a field of Asian Studies, in one department, resulting in a senior essay, three credits. Study on South Asia in at least three disciplines, 15-18 credits. Study in other areas of Asia, 9-12 credits. Total: 36 credits. (Study of Hindi in Lin 289 is recommended.)

Asian Studies Major and Chinese Language Second Field (East Asian emphasis): Core Curriculum: His 176 a and b ; an independent study course in a field of Asian Studies, in one department, resulting in a senior essay, 3 credits. Three years of Chinese language, 22 credits. Study on East_Asia_in_at-least-three-diseiplines, 21 -credits.-Study on other areas of Asia, six credits. Total: 58 credits.

## Course Offerings

[^2]A study of painting and sculpture in Europe from 1780 to 1880. prerequisite: Arb 150 b , Arb 292, or consent of instructor.

Art 492 Modern Art II: 20th Century (3)
A study of painting end sculpture in Europe from 1880 to 1940. Prerequisite: Arb 150 b , Arch 292 , or consent of instructor.
Arb 49791 independent study (1-4)
Directed reading and/or research in a selected area. Prerequisite: consent of instructor and department chairman. May be repeated with approval of department.

## Arb 498 - Senior-Seminar-in-Art-History-(3)

An introduction to the literature, theories, -and methods-of-art history and connoisseurship. Required of majors and open to minors $>$ in art history.

A limited number of the following courses, available through the Department of Classics, may by advisement be taken for credit in art history:

CIa 208 Greek Archaeology (3)
Caa 209 Roman Archaeology (3)
Caa 402 Greek Sculpture (3)
Cia 450 Archaeology of Southern Italy and Sicily (3)
CIa 460 Greek Architecture (3)

## PROGRAM IN ASIAN STUDIES

FACULTY: K. Chen, D. Ellinwood, L. Fields, H. Flierl, R. Garvin, J. Hanks, L. Chung, H. Sun, J. Uppal, R. Walton, T. Wright.

The interdisciplinary major with a concentration in Asian Studies offers students an opportunity to study the most highly populated continent, its rich cultures, and its place in the world. It can provide the basis for further studies in disciplines dealing with Asia. It also offers a good background for work in journalism, government service, inter-cultural activities, and business abroad.

## Special Programs or Opportunities

The university offers a year of intensive study of the Chinese language at Nanyang University in Singapore.

Hindi and Japanese languages are available on an independent study basis through Linguistics 389. Other Asian languages may be added to this program in the future.

## Delete Fall 77

## Any 124 The Stellar System (4)

The sun as a star, stellar distances, motions, variability, and pectra. Binary and multiple-star systems, clusters, interstellar medium, the Milky Way and extragalactic systems. Two classes and one laboratory per week. Prerequisites op corequisites: Shy 124 and Thy 125; Asy 183 or equivalent.
Asy 210 Navigation (3)
Charts and publications, piloting from navigational aids, basic celestial marine, pervigation using the Nautical Almanac and $\mathrm{H} \phi$ 249. Two classes and one labordtory per week.

## DEPARTMENT OF ATMOSPHERIC SCIENCE



FACULTY: G. Arnason, *D. Blanchard, L. Bosart, *J. Cobine, U. Czapski, N. Gokhale, H. Hamilton, "J. Jiusto, J. Kim, A. Loesch, "V. Mohnen, R. Orville, "V. J. Schaefer, *B. Vonnegut.
The educational aim of the department is to provide its undergraduate students with a broad background in the science of the atmosphere. The program offers both general introductory courses and advanced courses in the field of atmospheric science. Students, in conjunction with their academic advisors, may-tailor-their programs towards eventaal graduate work in atmospheric science, a double major in other disciplines or plan for post baccalaureate employment. Atmospheric scientists typically find employment with federal, state and local governments as well as in private industry. Those students interested in academic careers should plan on ultimately earning a Ph.D.

## Degree Requirements for the Major in Atmospheric Science

## General Program

B.S.: (combined major and second field sequences) Any two of Atm 100, 101, 103 or 207, and Atm 300, 401, 404, 411 and 412, Shy 120 and Shy 121, Shy 124 and 125, and Phy 220 and Thy 221, Mat 112, 113, 212 and 213, Chm 121 a and $b$; Chm 122 a and $b$; 10 additional credits in mathematics and science as advised.

[^3]ApHis 379 a and b History of China (3, 3)
F Gog 380 Geography of East Asia (3)
A Gog 383 Geography of South and Southeast Asia (3)
A His 483 Colloquium in non-Western History (Asian topics) (3)
A His 289 Directed Study in Foreign Language (Hindi, Japanese) (4)
A Chi 101-102 Elementary Chinese $(4,4)$
A Chi 201-202 Intermediate Chinese (4, 4)
A Chi 210-2.11 Survey of Classical Chinese Literature, I, II (3, 3)
A Chi 220 Chinese Calligraphy
A Chi 300 a and b Intermediate Conversation and
Composition (3,3) (Delete, 40177 )
A-Chi-301-a-and-b-Advanced-Gonversation-and Composition (3,-3)
A. Chi 421 Documentary Chinese (3)

A Chi 497 Independent Study in Chinese (3-6)
There also is available in some departments an inge-

- pendent study course which may be used for work in Asian Studies.

Other courses may be approved for a major in Asian Studies by the director of the program, when such courses are devoted primarily to Asian topics, e.g., Eco 330, Economics of Development, or Pos 458, Minority Group Politics in the Third World.

## DEPARTMENT OF ASTRONOMY AND SPACE SCIENCE

FACULTY: C. Hemenway

Although an undergraduate major in Astronomy and iv Space Science is not available, the following courses will be offered.

Aby 123 The Solar System (3)


A study of the earth, moon, planets, asteroids, meteors, ant comets as memory of the sundanity. Two classes and one labor tory-per week. Prerequisites or corequisites.-Phy 120 and Phys 12
br-equivalent-

## Aim 401

elected weather situations; three dimensional analyses of synoptic scale weather systems; application of the fundamental laws of atmospheric dynamics to the observed weather patterns. Qne-laborime


The application of physical laws and principles including acoustics, electricity, wave-propagation, optics, and radiation to the atmosphere. Three lectures each week. Prerequisites: Phy 220 and Shy 221.

## Atm 407 (Chm 407) Atmospheric Chemistry (4)

A characterization of atmospheric matter in the particulate, liquid, and gaseous states. Includes sampling and nature of particubates; analysis of inorganic and organic, gaseous and particulate pollutants; precipitation chemistry. Chemical reactions in the atmosphere, with the underlying principles of chemical kinetics, thermodynamics, photochemistry, and surface phenomena. Four class meetings weekly. Prerequisites: physical chemistry, or one year of chemistry, two years of physics, and three semesters of calculus. Offered jointly with the Department of Chemistry.

## Atm 408 Hydrometeorology (3)

The role of the atmosphere in the water cycle. Two lectures and one two-hour discussion each week. Prerequisites. Mat 212 and Atm

## Aim 411 Synoptic-Dynamic Meteorology (3)

Governing atmospheric physical laws; wind in relation to pressure; influence of friction; vertical structure of wind systems; atmospheric kinematics; circulation, vorticity and divergence thorems; fronts and frontogenesis; quasigeostrophic theory and application of basic atmospheric dynamics to the observed weather behavior. Three lectures each week. Prerequisites: Atm 300 and Mat 212, Corequisite: Mat 213.

## Atm 412 Atmospheric Thermodynamics (3)

Basic concepts and laws of classical thermodynamics with emphasis on application to water substance in its three phases. Various applications to the atmosphere including the thermodynamics of ascending moist air, hydrostatic stability, and rudiments of the theory of thermal convection. Three lectures each week. PrerequiSites: Atm 300, and Mat 213.

Atm 417 Physical Limnology and Oceanography (3)
Physical processes in the lakes and oceans; mixing and thermal processes; surface and internal gravity waves; seiches and tidal waves; wind driven currents; the effect of these processes on the aquatic environment and the surrounding atmosphere. Three eeclures each week. Prerequisite: Atm 300 and Mat 212, or consent of instructor,

Atm 497 Independent Study (1-4)
By advisement only and may be repeated twice for credit.

Students who expect to do graduate work in atmospheric science are encouraged to acquire a skill in computer programming or a reading knowledge of French, German, or Russian. In addition, these students should complete Phy 224, Phy 225, and Atm 400 and consider further course work in mathematics and science such as: Chm 320, Phy 321, Phy 332, Mat 363, Mat 409, Mat 410, Csi 201, and Csi 202.

## Atm 100 The Atmosphere (3)

A non-technical survey of the atmosphere; the physical environment of man and its effects on his activities; intentional and unintentional modification of the environment; topics include radiation, clouds, severe storms, weather forecasting, climate, air pollution, weather modification, satellite meteorology, and planetary atmosphere. Two lectures, one two-hour discussion each week. Closed to students with credit for Atm 300.

## Atm 101 The Upper Atmosphere (3)

An elementary survey of the properties and geophysical phenomena of the upper atmosphere; ionosphere, magnetosphere, interplanetary space, ionospheric and magnetic storms, aurora, airglow, and various observational techniques including rockets and satellites. Two lectures one two-hour discussion each week.

Climate axa Man
Atm 103 Introductory Climatöogy (3)
(1) Basiemprinctples fiegional and physical ellmatologyamintroducOtion to methods in dynamic climatology;-climate and man. Two

## ectures,one twoshoum disGussion-each_ureak im

## Atm 207 The Oceans (3)

An introductory survey of the physical, chemical, geological and biological processes in the marine environment; promises and problems of the oceans as a natural resource. Two lectures, one two-hour discussion each week.

## Atm 297 Independent Study I (1-4)

By advisement only and may be repeated twice for credit.
Atm '300 Introduciory Meteorology (AX) (3)
Whe-physioal-propexties of the atmosphere;-heat-mexehange, temperature, humidity, precipttation and pressure; equation of motion (expressed as a balance of forces including specific cases of geostrophic and gradient winds; adiabatic charts, instrumentation and basic hourly weather codes; thermat wind and divergence; basic climatology. Three lectures, one lab each week. Prerequisites: one of Atm 100, 101, 103, 207 and Phy 124 and Phy 125. Co-

## Atm 400 Introduction to Fluid Mechanics (3)

Basic principles and laws governing the motions of fluids. Topics include elements of vector and tensor analysis; kinematics of fluid motion; the Naviex-Stokes equations of motion and the energy equation for a Newtonian fluid; ideal and viscous fluids; dimensional analysis. Three lectures per week. Prerequisites: Mat 213 and Phy 124.
elective credit; courses which do not yield credit toward the major are so indicated in the individual catalogue descriptions. Chm 121, 122, 345, 346, 347, 348 (Chm 216 and 217 may be substituted for Chm 345 and 346; Chm 342 and 343 may be substituted for Chm 347 and 348). Major electives must be so selected that together with the courses in chemistry a total of 12 credits at the 300 level or above is included in the major. The second field sequence will consist of a minimum 18 credits in an approved area as advised, and must include at least six credits at the 300 level or in courses having a prerequisite.
B.S.: Combined major and second field sequence consisting of a minimum of 66 credits including Bio 101, 201 and 25 additional credits of biology courses which must include at least THREE laboratory courses. At least one course must be selected from each of the following FOUR areas: (1) molecular/cellular biology Bio 301, 302, 303, 314, 315, 326, 406, 419; (2) Organismal biology Bio 305, 322, 324, 310, 325, 407, 415, 433; (3) Integrative biology Bio 317, 323, 332, 333, 403, 404, 410, 411 417, 418, 460; (4) Ecology/Population Biology Bio 202, 219, 316, 340, 402, 409, 432 , 434. Bio 399 and 499 may contribute up to a total of four credits toward the major but cannot be used to fulfill credits as a laboratory course. Courses which do not yield credit toward the major are so indicated in the individual catalogue descriptions. Chm 121, 122, 345, 346, 347, 348 (Chm 216 and 217 may be substituted for Chm 345-348 in which case Chm 342 and 343 must be completed as part of the 25 additional credits in biology described above). Phy 105, 106; two courses in mathematics exclusive of Mat 100, 102, 105, 107. Courses in biology must be so selected that together with the courses in chemistry a total of 18 credits at the 300 level or above is included in the majorsecond field sequence.
66 credits:
Mathematics ............................ 6
Physics .................................... 8
Chemistry ................................ . . 16
Bio 101 .................................... 8
Bio 201 .................................. 3
Sub Total ............................ ${ }_{25}$ credits
Additional credits in biology ........... 25
Total . . . . . . . . . . . . . . . . . . . . . . . . . 66 credits

## DEPARTMENT OF BIOLOGICAL SCIENCES

FACULTY: K. Able, C. Baglioni, W. Baum, S. Brown, N. Dulak, C. Edwards, D. Edwards, J. Flynn, Jr., H. Ghiradella, J. Greco, R. Hausner, K. Heinig, H. Hirsch, C. Izzard, J. Jacklet, R. Jaeger, R. Kelly, L. Lerman, J. Mackiewicz, S. P. Marfey, J. Mascarenhas, L. Mason, S. McGee-Russell, D. McKinley, D. McNaught, A. Millis, R. Murphey, S. Newman, R. Rikmenspoel, J. Saunders, Jr., D. Shub, M. Stewart, R. Stross, H. Tedeschi, F. Truscott, H. Winn, R. Zitomer

The objective of the department is to provide the undergraduate student with a broad background in the biological sciences and adequate supporting strength in the physical sciences. Accordingly, the B.S. programs listed below are structured around a combined major-second field sequence. The B.A., which specifies the major only and requires a separate second field sequence, is designed with the aims of the general liberal student in mind and as such is not intended for the professional biologist. The B.S. programs provide a strong background for further study either in medicine or in graduate school and prepare the student for secondary school teaching and a variety of careers in biology at the technical level. The B.S. program in Medical Technology is conducted in cooperation with Albany Medical Center Hospital and is a rigidly structured program in the sciences intended to provide baccalaureate level education in the basic sciences during a three year period. The fourth year is one of clinical training spent at the hospital. Enrollment in this program is limited to the numbers of students who can be accommodated in the clinical year at Albany Medical Center Hospital.

The department also offers programs leading to the M.S. and the Ph.D. in which the graduate student is able to obtain an in-depth professional education in one of several more restricted areas of biological sciences.

## Degree Requirements for the Major in Biology

## General Program

B.A.: A minimum of 36 credits including Bio 101, 201; and nine credits of biology major electives. A minimum of two courses, exclusive of Bio 101, must be partially or exclusively laboratory courses. Bio 399 and Bio 499 may contribute up to a total of four credits of non-laboratory major
65 credits:
Mathematics ..... 6
Physics ..... 8
Chemistry ..... 16
Astronomy, Geological Science or Atmos- pheric Science ..... 6
Bio 101 ..... 8
Bio 201 ..... 3
Sub Total ..... 47
Additional credits in biology ..... 18
Total ..... 65
The "additional 18 " credits must be distributed as fol-lows:
Group 1. ..... 3
2. ..... 3
3. ..... 3
4. ..... 3
Total ..... 12

The remaining 6 credits may be selected from any of these-courses-in-groups $1=4$, Bio 399 , 499 , Chm 342,-343.

## Special Program

B.S.: Medical Technology. The program in Medical Technology enables a student to obtain the B.S. degree from this university at the end of a four-year program, including three academic years here and a fourth calendar year at a school of medical technology approved by this university. Each student during the first three years fulfills the general liberal requirements and the major and second field requirements for a medical technology major. The fourth year at a school of medical technology includes both theoretical and practical work in the medical laboratory category. The B.S. degree is awarded by this university upon satisfactory completion of the requirements of both institutions. The program is presently offered in affiliation with the Albany Medical Center Hospital.
(Combined major and second field requirements) Bio $101,314,315$, and at least six credits selected from Bio $201,205,213,317,301,302,325,326,403,406,407,410$, 411; Chm 121, 122, 216, 217, 225, 342, and 343; a labora-

The "additional 25 " credits must be distributed as follows:

$$
\text { Group 1. . . . . . . . . . . . . . . . . . . . . . . . . . . . } 3 \text { minimum }
$$

2. ................................ 3 minimum
3. ............. . . . . . . . . . . . . . . 3 minimum
4. . . . . . . . . . . . . . . . . . . . . . . . . 3 minimum Total ........ . . . . . . . . . ... . . . . . . . . 12
The remaining ( $25-12=13$ ) credits can be selected from among those courses in groups 1-4, Bio 399, 499, and Chm 342, 343. Since any course carrying fewer than 3 credits has a co-requisite course in the same group, the final distribution of credits will be as above.

## B.S. Major-Second Field Sequences in Biology

## Teacher Education Program

B.S.: Combined major and second field sequence consisting of a minimum of 65 credits: Bio 101, 201 and 18 additional credits of biology courses which must include at least THREE laboratory courses. At least one course must be selected from each of the following FOUR areas: (1) molecular/cellular biology Bio 301, 302, 303, 314, 315, 326, 406, 419; (2)-Organismal biology-Bio 305, 322, 324, 310, 325, 407, 415, 433; (3) Integrative biology Bio 317, $323,332,333,403,404,410,411,417,418,460$; (4) Ecology/Population Biology Bio 202, 219, 316, 340, 402, $409,432,434$. Bio 399 and 499 may contribute up to a total of four credits toward the major but cannot be used to fulfill credits as a laboratory course. Courses which do not yield credit toward the major are so indicated in the individual catalogue descriptions. Chm 121, 122, 345, 346, 347, 348 (Chm 216 and 217 may be substituted for Chm 345-348 in which case Chm 342 and 343 must be completed as part of the 18 additional credits in biology described above). Phy 105, 106, 6 credits in Astronomy and Space Science, Geological Science, or Atmospheric Science as advised, two courses in mathematics exclusive of Mat $100,102,105,107$. Courses in biology must be so selected that together with the courses in chemistry a total of 18 credits at the 300 level or above is included in the majorsecond field sequence.

## Genetics (3)

Principles of heredity and variation at all levels of biological organization and the mechanisms of replication, mutation, recombination, and gene expression which underlie these principles. Three class periods each week. Prerequisite: Bio 101; or consent of instructor. May be taken either session.

## Bio 202 (Env 202) Ecology (3)

Introduction to the study of organisms, populations, and communities in relation to their environments. The course stresses an integrated approach at all levels of biological organization. Topics considered include: the niche concept, species diversity, nutrient cycling, energy flow, population dynamics and control, biological rhythms, and other physiological mechanisms influenced by the enyironment. Prerequisite: Bio 101. Three class periods each week. May be taken either session.

Bio 205 Human Genetics (3)
A survey of human genetics emphasizing the principles and mechanisms of inheritance, and including the analysis of the genetic material of man, the behavior of genes in individuals, families and populations, and the implications for human behavior and evolution, medicine, and society. Does not yield credit toward the major in biological sciences. Not open to freshmen or to students with credit in Bio 201. Three class periods each week.

## Bio 207 Effects of Blological Research on Man and Society (2)

A scientific discussion of current aspects of biological research with-referenee-te-their-effects on man and society. Topics include: human reproduction (anatomy, physiology, contraception, abortion, artificial insemination), human genetics (genetic disorders and treatment, chemical and radiation-induced mutations, genetic engineering, intelligence and behavior), mechanisms of drug action, transplantation, population growth and control, chemical and biological warfare. Does not yield credit toward the major in biological spiences. Two class periods each week.

## (Bio 210 Dendrology (3)

Field and laboratory study of native and ornamental trees, shrubs, and related flora. Identification, classification, natural history, and seasonal, ecological and economic aspects. Field study at area parks, preserves, and nurseries; use of keys and preparation of herbaria. Does not yield credit toward the major in biological sciences. Two cledss periods and one laboratory period each week. Prerequisites: Bo 101 or 102, or consent of instructor.

## Eio 211 Plants and Human Affairs (3)

Characteristics of food, beverage, drug, industrial, and poisonous plants. Problems of their production and utilization. Discussion of important plants and plant products in the modern world with some attention given to the effects of plants on the development of civilization. Does not yield credit toward the major in biological sciences. Three class periods each week.
tory course in college physics; and six credits in mathematics exclusive of Mat 100, 102, and 105. Students in this program also complete the fourth year in affiliation with a registered school of medical technology (Bio 400 a and b). This is considered as a special requirement for this program.

Prior to the end of the fall session, junior year, each student in the medical technology program must receive medical clearance and approval from the director of medical technology at the Albany Medical Center Hospital in antcipation of his enrollment in $\overline{\mathrm{B}} \mathrm{io}^{-} \overline{4} 0 \overline{0}$ a and $\overline{\mathrm{b}}$. This program accommodates a limited number of students.

## Bio 101 a and b General Biology (4, 4)

Fundamental principles common to all living systems at the molecular, cellular, and organismal levels; with a general survey of the plant and animal kingdoms. This course is especially designed for prospective biology majors and also for other science majors and minors. Biology majors should elect Chm 121 a and b , concurrently. Not open to students with credit in Bio 102. The full year of study is recommended. Three olass periods, one laboratory period each week. Prerequisite: Bio 101 a is prerequisite to Bio 101 b .

Bio 102 a and b General Biological Science (3, 3)
Principles of life processes with consideration of the major groups of living organisns. Particular attention is devoted to the implication of biology to the problems of modern living, e.g., ionizing radiation and its effects on living systems. The audio-tutorial method of instruction is emphasized to provide maximum individualization of study. Laboratory experience is integrated into the audio-tutorial format. Not open to students who have credit in Bio 101 or other equivalent introductory courses. Two lectures per week plus one audio-tutorial laboratory per week. Credit may be earned for either session (102a is not a prerequisite for 102b) although the full year of study is recommended.

## Sio 115 Ornithology (2)

Field and laboratory study of birds; the topography, adaptive features, and classification of resident and migratory species, with (emphasis on identification by sight and sound. One class period, one laboratory period each week. Prerequisite: consent of instructor. Does not yield credit toward the major in biological sciences.

Bio 120 Conservation of Natural Resources (2)
The scientific use and management of soil, water, forests, and wildlife with emphasis on current problems associated with environmental pollution, habitat and wildlife depletion, conservation education, and urban growth at local, national, and international levels. Does not yield credit toward the major in biological sciences. Two class periods each week.

Bio 306 Development of Biological Thought (2)
Philosophic treatment of major concepts of biology; changes in interpretations are traced from earliest views of superstition to modern problems with important social, economic, hygienic, and political implications. Does not yield credit toward the major in biological sciences. Two class periods each week. Prerequisite: ten $\sqrt{\text { credits of biology. Restricted to juniors and seniors. }}$


B10 30 Panaitic Diseases and Humnan Whel Bio 307 Natural listory in Early Amerraa (3)

The rise of natural science in America, especially as shown by early animal and plant studies in naturalists' journals, explorers' reports and biological surveys. These are interpreted for today's ecologist, taxonomist, conservationist and literary naturalist. Does not yield credit toward the major in biological sciences. Three class periods each week. Prerequisite: upperclass standing, or consent of instructor.

## Bio 310 Plant Taxonomy (3)

Principles and methods of systematics with emphasis on the identification and classification of angiosperms. Two class periods, pne laboratory period each week. Prerequisite: Bio 101.

Bio 314 General Bacteriology (3)
An introduction to the morphology and physiology of bacteria, and the bacterial viruses. Three class periods each week. Prerequisites: Bio 101 and a course in biochemistry. Biochemistry may be faken concurrently.

Bio 315 General Bacteriology Laboratory (1)
Laboratory techniques for the culture and study of microorganisms, Experiments on the dynamics of bacterial growth and the physiological bases of bacterial identification and environmental influences. One laboratory period each week. Prerequisite: Bio 314 (may be taken concurrently).

## -Bio 316 Biogeography (3)

Origin and differentiation of floras and faunas; biotic regions of the world, principles of distribution; migration, adaptation, evolution, and extinction. Three class periods each week. Prerequisite: Bio 101.

## Bio 317 Comparative Animal Physiology (3)

An analytical survey of the regulatory mechanisms of various animal systems. The course will emphasize similarities and differences in the adaptation of different organisms to their environment. Wherever possible the molecular basis of these adaptations will be discussed. Three class periods each week. Prerequisite: Bio 101.

Bio 322 Plant Morphology (3)
An evolutionary survey of the plant kingdom. Structure, life cycles, relationships and phylogenetic trends of major plant groups. Principles of comparative plant morphology. Two class periods, one laboratory period each week. Prerequisite: Bio 101.

Bio 213 Vertebrate Physiology (4)
Study of the function of organ systems in vertebrates; musele contraction, nervous coordination, respiration, nutrition and elimina tion. Does not yield credit toward the major in biological sciences. Three class periods, one laboratory period each week. Prerequisites: Bio 101 or Bio 102 and Chm 121.

## Bio 219 Field Blology (3)

An introduction to those aspects of biology which are based on field study; local flora and fauna from an ecological viewpoint; selected field and laboratory techniques and related literature. Each student is required to complete an independent field investigation. Two class periods, one laboratory period each week. Prerequisite: Bio 101 or Bio 102. Not open to freshmen.

## Bio 230 (Env 230) People and Resources in

## Ecological Perspective (3)

Introduction to ecosystems, soils science, and the distribution of natural communities. The study of man as a global population and its social implications for resource exploitation. A historical perspective on resource-oriented behavior. Does not yield credit toward the

## major in biological sciences. Three class periods each week. <br> $816{ }^{2} 2401$ Cell Biology (3) 4 Whaling (3) $\quad 12.16 \mid 76$

A study of cell biology emphasizing methods used to study living animal cells, the structural and functional significance of cellular components, and those factors which are involved in the regulation of cell proliferation. Specific areas of discussion include principles of cell culture, structure and function of cell membranes, the cell cycle, growth characteristics of isolated cells, cell-hybridization and reconstruction, aging and senescense, and the genesis and biology of cancer cells. Prerequisites: Bio 201, Chm 342 or 347.

## Bio 302 Cell Biology Laboratory (2)

Experimental investigation on selected topics in cell biology, including membrane permeability, cell motility, tissue culture, isolation of subcellular particles, use of oxygen electrodes in metabolic studies, and analysis of living cells using advanced techniques in optical microscopy. One three-hour laboratory, one hour of recitation per week. Prerequisite: Bio 301 (may be taken concurrently) Bio 303 Elements of Biophysical Cell-Bighogy (3) 8if $12 / 77$

A consideration of selected topics in cell biology with demphasis on-a-biophysical approceh-Fepieswith molude:Energetics isateding oxidative phosphorylation and its regulation, the primary process of photosynthesis, membrane transport, excitability Prerequisite: Bio 201, Chm 342 or 347.


## Bio 305 Biology of the Arthropods (3)

Form, function, systematics, and population dynamics in insects and other arthropods. Prerequisite: Bio 101 or Bio 102. Two class periods, one laboratory period each week. Given alternate years
biology. Does not yield credit toward biology major. Prerequisites: Bio 101; minimum of 30 credits in sicence courses; junior or senipr standing; and consent of instructor.

## Bio 399 Supervised Research for Juniors (1-3)

Individual, independent research on selected topics in biology. Critical analysis of selected research papers. Junior majors in the department of biological sciences may make application for this cohirse through the office of the department chairman. May be taken either session, May be repeated for a total of six credits.

## Bio $400 \mathbf{a}$ and $\mathbf{b}$ Medical Technology (3)

This is the fourth year of the medical technology program. It is an intern year at a cooperating school of medical technology and includes course work in Microbiology, Parasitology, Bacteriology, Clinical Chemistry, Clinical Pathology, Urinalysis, and Serology and the accompanying laboratory program. The intern year begins only in September and continues for a calendar year. To be enrolled in the program the student must have completed all required course work for the degree except for the intern year program. (Open only to students enrolled in medical technology.)

## Bio 402 Evolution (3)

Origins of life: mechanisms and processes of organic evolution, stressing evidence from population genetics, systematics, paleontology, and comparative physiology, biochemistry; the evolution of man and his culture. Three class periods each week. Prerequisites: Bid 101 and 201.

Bio 403 Developmental Biology (3)
The development of form and function in animals and plants at the cellular, tissue, and organismal levels; the factors controlling developmental processes. Topics includes gametogenesis, fertilization, early development, and organogenesis. Concepts and processes include induction, polarity, symmetry, differentiation, morphogenetic movement, regeneration, aging and death. Three class periods each week. May be taken with or without associated laboratory course Bio 404. Prerequisites: Bio 201, and Chm 347 and 348 or Chm 342 and 343.

## Bio 404 Developmental Biology Laboratory (1)

The experimental understanding of the basic concepts in developmental biology. Emphasis is placed on the experimental techniques and principles used to analyze the factors controlling cellular, tissue add organismal development in both plants and animals. One laboratory period each week. Corequisite: Bio 403.

## Bio 406 Animal Histology (3)

Fundamental microscopic and electron microscopic anatomy of mammalian cells, tissues and selected organs and organ systems. Practice in preparation of biological materials for examination by the light microscope, including: dissection, fixation, imbedding in paraffin and plastic, sectioning, and staining. Two olass periods; one laboratory period each week. Prerequisites: Bio 101; Bio 325 or Bio 410 strongly recommended.

## Bio 323 Plant Physiology (3)

Life processes of plants, particularly those of the vascular plants: water, relations, translocation, mineral nutrition, metabolic pathways peculiar to plants, growth, and hormonal control. Two class periods, one laboratory period each week. Prerequisites: Bio 101, Chm 216 a and 217 a, or Chm 345 and 346.
Bio 324 Invertebrate Zoology (4)
Functional morphology and adaptive radiation of invertebrates, with consideration of those aspects of fine structure, developmental biology, behavior and comparative physiology, particularly charactexistic of invertebrate organisms. Laboratory work emphasizes living marine forms. Three class periods, one laboratory period each week. Prerequisite: Bio 101 or 102.-Not open to freshmen.

## Bio 325 Functional Morphology of the Vertebrates (3)

A comparative study of the anatomy, embryonic development, and evolutionary modifications of organ systems in the vertebrates. Major emphasis is placed on the physiological roles of the developing and adult organism. Two class periods, one laboratory period each week. Prerequisite: Bio 101.

## Bio 326 Molecular Biology (3)

Structure of macromolecules: nucleic acids and proteins. Biosynthesis of macromolecules: protein synthesis, RNA and DNA synthesis. Structure of chromosomes; protein/nucleic acid interactions. Molecular genetics. Three class periods each week. Prerequisites: Bio 101, 201, Chm 342 and 343 or Chm 347 and Chm 348.

Bio 332 Experimental Plant Biology (3)
The influence of endogenous and exogenous plant growth regulators and environmental conditions on plant development. Emphasis on photomorphogenesis and the phenomena and proposed mechanisms of action of growth-regulating hormones. Three class periods per week. Prerequisites: Bio 201 and a course in organic chemistry.

## Bio 333 Experimental Plant Biology Laboratory (1-3)

Laboratory investigations of plant morphogenesis: including embryogenesis, regeneration, cellular growth and differentiation. The equivalent of one, two, or three three-hour laboratory periods per week. Corequisites: Bio 332 or consent of instructor.

## Biology 340 Aquatic Ecology (3)

A study of aquatic environments, interactions and adaptations of the organisms living there: form and functional adjustments, growth characteristics of individuals and populations, and ecology of changing environments. The course considers the fundamentals of eutrophication of lakes and estuaries, biological treatment of domestic and industrial wastes and aquaculture. Two one-hour lectures, one threehour laboratory each week. Prerequisite: one year of introductory college biology.

## Bio 350 Development of Biology Laboratory Exercises (2-4)

Design and implementation of laboratory exercises and experiments suitable for use in introductory biology. Exposure to and involvement in techniques that relate to the teaching of introductory

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8to-424-Ecology of Freshwaters-(2)
Experimental and observational studies of environmental and biotic interactions influencing productivity of freshwaters. Basic consepts at the organismic, population, and community level. Course $\phi_{\text {fere }}$ during Summer Program at Cranberry Lake only. Prerequif site: a course in ecology
Bio A22_Ecology_of_R Erest_Communitles-(2)
Study of the structural and functional characteristics of selected Adirondack ecosystems; techmpus of "vegetational and environmental analysis. Spec hal eqfirements: students must be prepared to so on one overnight beeping trip to an-isolated study area. Course offered during Summer Program at Cranberry Lake only. Prerequisite: Geenral ecology plus 15 credits of biology.

Study of invertebrate microcommunities; descriptive and comparative assay of microhabitats of incorporating experimental and field techniques. Course offered during Summer Dxegram at Tranperry Lake only. Prerequisite: General zoology and ecology.
申io-42 5-Vertebrate Ecology (2)
Utilization of unique Adirondack forms and communities to study population dynamics, behavior, systematics techniques. Course offered during Summer Program at Cranberry Lake only. Prerequi-Sife:-12 2 exeditemof-bielegy

## Go 432 Animal Behavior (3)

The organization, causation, development and evolution of behavior in vertebrates and invertebrates. Emphasis is on a synthesis of information from both field and laboratory. Topics include stimuli and responsiveness, motivation, conflict behavior, social behavior with emphasis on ecological aspects, orientation and navigation, rhythmicity, learning, and the neural organization responsible for behavior. Three class periods each week. Prerequisite: 15 credits in biology including Bio 202.

## "Bio 433 Mycology (3)

Introduction to the fungi: structure, function, life cycles, evoluton, and ecological and economic importance. Two lectures, one laboratory period each week. Prerequisites: Bio 101, or consent of the instructor.
Bio 434 Population-Community Ecology (3)
Major concepts in population dynamics and the structure and evolution of communities. Topics include niche partitioning, competition theory, population cycles, population regulation, optimization theory, the community matrix, species packing and species diversity. Emphasis on current research. Three class periods each week. Prerequisite: Bio 202.

## Bio 450 Fundamentals of Immunology (3)

A survey of the field of immunology encompassing topics such as the nature of immune defense; the character of the cells involved, their activities and their interactions; the immunoglobulins; control of antibody synthesis; the chemical nature of antigenicity; the antigen-antibody reaction; immunological memory; immunosuppression; autoimmunity; and the application of immunochemical tech.

Biology of host-parasite systems; factors influencing evolution, distribution, and host specificity of animal parasites. Host-parasite relationships as illustrated by physiological and morphological adaptations, ecology, and life cycles of selected protozoan, helminth, and arthropod parasites. Two olass periods; one laboratory period each week. Prerequisite: 14 credits in biology courses.
Bio 409 Ecology Laboratory (3)
Laboratory and field research testing current ecological concepts. Emphasis on learning research design and techniques by intensively investigating a single concept, such as competition theory, community energy flow, or foraging strategy. Use of computers for model building. One class period and six hours of field research each week. Prerequisites: Bio 202 and consent of instructor.

## Bio 410 Systemic Physiology (3)

The function of organ systems in animals and their contribution to the functions of the body as a whole. Topics include nervous, endocrine, cardiovascular respiratory, gastrointestinal, and urinary systems. Two one-and-one-half hour lecture periods each week. Prerequsite: Bio 301.

## Bio 411 Systemic Physiology Laboratory (1)

Experimental investigations in systemic physiology with emphasis on membrane transport, nerve excitability, muscle contraction, sensory mechanisms, cardiac activity, and special problems. One laboratory period each week. Corequisite: Bio 410.

## Bio 415 Vertebrate Biology (4)

Characteristics, systematics, distribution, adaptation, behavior, population dynamics, and ecology of the vertebrates. Appropriate field and laboratory techniques. One weekend field trip will substitute for some laboratory periods. Three class periods, one laboratory period each week. Prerequisite: Bio 202 or 219.

## Bio 417 Neurophysiology (3)

Comparative approach to the physiology of the nervous system with major emphasis on invertebrate systems. Topics include functional organization of nervous systems, sensory and central processes, synaptic mechanisms and neural correlates of learning and behavior. Three class periods each week. Prerequisites: Phy 105 and one term of biochemistry.

## Bio 418 Experimental Neurophysiology Laboratory (1)

Experimental analyses of the nervous system including stimulating and recording techniques, experimental design, and data analysis. Emphasis is placed on invertebrate nervous systems. One laboratory period each week. Corequisite: Bio 417.

## Bio 419 Cytogenetics (3)

The study of eukaryotic chromosomes; their structure, function and cycles as they relate to the replication, segregation, recombination, and transcription of the genetic material; and their role in speciation and evolution. Two class periods, one laboratory period each week. Prerequisites: Bio 201 and Bio 301, or consent of instructor.
quirement by Chm 121, 122, 216, 217, 225, 340, 341a and 342 or 420 or 440a); Mat 112, 113, 212; Phy 120, 121, $124,125,220,221$; Bio 101 or 102 ; three credits in astronomy, geological or atmospheric sciences as advised.

## Other Degree Requirements

Students in the general program are strongly urged to complete at least one year of German.

## Chm 121 a and b General Chemistry (3, 3)

Fundamental laws and theories of chemistry with emphasis on physical theory ${ }^{\prime}$ and quantitative relationships. Principles of equilibrium applied to aqueous solutions and the chemistry of the more common elements with emphasis on the periodic relationship and coyelation with atomic properties. Three class periods each week. Pferequisite for Chm 121 b ; Chm 121 a .
Chm 122 a and b General Chemistry Laboratory ( 1,1 )
Application of some of the basic techniques of chemistry with emphasis on fundamental principles. Quantitative aspects are stressed. Detailed experimental study of chemical equilibrium and an introduction to elementary analysis are included. One laboratory period each week. Prerequisite for Chm 122 b: Chm 122 a.
Chm 131 a and b Chemical Principles (3)
Structure and reactions_of atoms-and-meleeules, nature of chemical bonds, condensed phases, chemical thermodynamics, chemical equilibrium, basic concepts of inorganic and organic chemistry. Three class periods each week. Prerequisite for Chm 131 a; one year of high school chemistry and one year of high school physics or concurrent enrollment in college physics; for Chm 131 b : Chm 131 a.
Chm 132 a and b Experimental Chemistry ( 1,1 )
Synthesis and characterization of organic and inorganic compounds. One laboratory period each week. Corequisite for Chm 1132 a and b : Chm 131 a and b .
Chm 198 Selected Independent Reading (1)
Independent study of a selected topic in chemistry which correlates with and supplements the formal curriculum in chemistry. Potential enrollees should consult with the department chairman in the spring regarding the topic and registration. Work normally will be carried out during the summer between the students' first and sefond years, with examination and credit given in the fall. Prerequisite: consent of the department chairman.
Chm 216 a and b Organic Chemistry $(3,3)$
Structure, synthesis and reactions of the principal classes of organic compounds with a stress on the underlying principles of reaction mechanisms, stereochemistry and spectroscopic techniques. Three class periods each week. Prerequisite for Chm 216 a: Chm 121 b and Chm 122 b (or Chm 131 b and Chm 132 b ); for Chm 216 b: Chm 216 a.

Miques to biological research. Three class perio
Prerequisite: Bio 201 and a course in biochemistry.

## Bio 460 Neural Basis of Behavior (3)

Critical examination of the interrelationships of complex behavior with the development, structure, and function of the central nervous system in higher vertebrates. Two one-and-one-half hour lecture periods each week. Prerequisite: consent of the instructor.
Bio 499 Supervised Research for Seniors (1-4)
Individual, independent research on selected topics in biology. Critical analysis of selected papers. Senior majors in the department of biological sciences may make application for this course through the office of the department chairman. May be taken either session. May be repeated for a total of 8 credits.

## DEPARTMENT OF CHEMISTRY

FACULTY: J. Aronson, S. Bank, A. Bryan,' W. Closson, L. Daly, G. Eadon, A. Finkelstein, H. Frisch, R. Frost, T. King, H. Kuivila, B. Laurenzi, A. Long, E. McLaren, Y. Myer, P. Olafsson, R. Sarmá, A. Saturno, A. Yencha, J. Zubieta, J. Zuckerman

The objective of the department is to provide students with a broad fundamental knowledge of modern theoretical and experimental chemistry that enables graduates to embark immediately on professional careers in chemistry or to continue study at an advanced level toward higher degrees. The general program in chemistry is approved by the Committee on Professional Training of the American Chemical Society.

## Degree Requirements for the Major in Chemistry

## General Program

B.S.: (Combined major requirement and second field sequence), Chm 131, 132, 216, 218, 340, 341, 342 or 420 or 440 a , and nine credits in advanced chemistry as advised (transfer students may satisfy the major requirement by $\mathrm{Chm} 121,122,216,217,225,340,341$, and one of Chm 342 , 420 or 440 a , plus eight credits in advanced chemistry as advised); Mat 112, 113, 212; Phy 120, 121, 124, 125, 220, 221.

## Teacher Education Program

B.S.: (combined major requirement and second field sequence), Chm 131, 132, 216, 218, 340, 341a, and 342 or 420 or 440a (transfer students may satisfy the major re-
emphasis on bonding, spectra, and the solid state. Three class periods each week. Prerequisites for Chm 340 a: Chm 225, Phy 124. Mat 212, and Chm 216 (may be taken as corequisite); or Chm 218 b, Phy 124 and Mat 212; for Chm 340 b: Chm 340 a.

Chm 341 a and b Physical Chemistry Laboratory (3, 3)
The experimental understanding of the basic principles of physical chemistry and development of familiarity with the instruments, experimental principles and their application toward the elucidation of the fundamentals of the physical principles of chemistry. Includes: thermodynamics, chemical kinetics, hydrodynamic, electrochemical and optical properties. Two laboratory periods each week. Corequisites: Chm 340 a and b . Prerequisite for Chm 341 b : Chm 341 a .

## Chm 342 Introduction to Biochemistry (3)

The chemistry and biochemical interrelationship of carbohydrates, lipids, proteins, and nucleic acids; enzymes and metabolic processes. Three class periods each week. Prerequisite: Chm 216 b .
Chm 343 Introduction to Biochemistry Laboratory (1)
Experiments illustrating the fundamentals of biochemistry as discyssed in Chm 342. One laboratory period each week. Corequisite: Chm 342.

## Chm 345 Chemical Foundations for Biochemistry (3)

A unified course dealing with the principles of physical and organic chemistry pertinent to the understanding of biochemistry and comprehension of modern_biology Three_class periods-each-week. Prerequisite: Chm 12 l b or Chm 131 b . Corequisite: Chm 346. (Not open to majors in chemistry.)

## Chm 346 Chemical Foundations for Biochemistry Laboratory (1)

Recitation and laboratory to complement Chm 345. One laboratory period each week. Corequisite: Chm 345 (Not open to majors in chemistry.)

## Chm 347 Basic Principles of Biochemistry (3)

A general survey of modern topics relevant to the elucidation of structural-functional relationships, metabolic significance, dynamics and other aspeets of biological systems. Three class periods each week. Prerequisite: Chm 345 (Not open to majors in chemistry.)

Chm 348 Basic Principles of Biochemistry Laboratory (1)
Recitation and laboratory to complement Chm 347. Corequisite: Chm 347. One laboratory period each week. (Not open to majors in chemistry.)

## Chm 398 Selected Independent Reading III (1)

Independent study of selected topic in chemistry which correlates with and supplements the formal curriculum in chemistry. Potential enrollees should consult with the department chairman in the spring regarding the topic and registration. Work normally will be carried out during the summer between the students' third and fourth years with examination and credit given in the fall. Prerequisite: consent of the department chairman.

# Chm 217 a and b Organic Chemistry Laboratory $(1,1)$ 

Laboratory techniques in organic chemistry, including extraction, crystallization, distillation and chromatography, exemplified by the application of these techniques to the synthesis and qualitative. analysis of organic compounds. Applications of infra-red and NMR spectroscopy. One laboratory period each week. Corequisite (or prerequisite) for Chm 217 a: Chm 216 a; for Chm 217 b: Chm 216 b. Prereriuisite for Chm 217 b: Chm 217 a.

## Chm $2: 18$ a and b Experimental Chemistry II $(2,2)$

Continuation of Chm 132 with emphasis on characterization of compounds by physical methods, relationship between molecular structure and physical properties. Two laboratory periods each week. Corequisite (or prerequisite) for $\mathrm{Chm}^{-} 218^{-}$a: $\mathrm{Chm}^{-} 216^{\circ}$ a; for Chm 218 b : Chm 216 b ; prerequisite for Chm 218 b : Chm 218 a.

## Chm 225 Quantitative Analysis (3)

Theory of quantitative aanlysis based on modern chemical principles. Practical application to typical gravimetric, volumetric, and (colorimetric analysis. Two class periods, one laboratory period each week. Prerequisite: Chm 121 b and Chm 122 b ; or Chm 132 b.

## Chm 298 Selected Independent Reading II (1)

Independent study of a selected topic in chemistry which correlates with and supplements the formal curriculum in chemistry. Potential enrollees should consult with the department chairman in the spring regarding the topic and registration. Work normally will be cartied out-during-the-summer-between the students' second and third years, with examination and credit given in the fall. Prerequisite: consent of the department chairman.

Designed to provide the non-science student with an appreciation of chemistry as a human pursuit and the nature of chemical knowledge and how it is obtained. Three class meetings each week. (Closed to students with credit in Chm 121 b or Chm 131 b.)

## Chm 320 Elementary Physical Chemistry (3)

The interpretation of the properties of chemical systems in terms of thermodynamics, electrochemistry and kinetics, and studies of supface tension and viscosity. Three class periods each week. Pferequisite: Chm 121 b, Mat 113. (Not open to majors in dhemistry.)

Chm 321 Elementary Physical Chemistry Laboratory (1)
Experiments illustrating and applying the principles developed in the topics listed in Chm 320 to the study of chemical systems. One laboratory period each weêk. Corequisite: Chm 320.

## Chm 340 a and if Physieal Chemistry ( 3,3 )

The mathematical description of physiochemical systems and their interpretation in terms of thermodynamics, kinetic theory, and reaction rates. Atomic and molecular structure from the viewpoint of elementary statistical mechanics and wave mechanics, with special

Theoretical principles and chemical applications of instrumental methods of aanlysis trefudes emission pectanscopy, condrutance methods, polarogitaphy, massusfectrop 9 , gas onfomatography, NMR, and atospraidy spectrophorietry in the visible, UV and IR regionsw wo MsworiodSNwo lariatory periods each week. Preqequisite: Chm 340 b (may be taken as corequisite) or Elm 218 b.
Chm 431 Intermediate Physical Chemistry (3)
Fundamental principles and their applications from the areas of thermodynamics, kinetics, and molecular structure. Three class periods each week. Prerequisite: Chm 340 b.

## Chm 436 Advanced Organic Chemistry (3)

Organic chemistry at an advanced level, including introduction of theoretical background and application in synthesis. Three class periods each week. Prerequisite: Chm 340 b (may be taken as a corequisite) or Chm 218 b .

## Chm 440 a and $b$ Comprehensive Biochemistry $(3,3)$

Chemical characteristics of living matter, amino acids, polypeptides and proteins, supramolecular assembly and membrane structure; enzyme mechanisms and kinetics; bioenergetics and the chomistry of metabolism; electron transport and other transports aqross membranes; biosynthesis, storage and expression of genetic ifformation. Prerequisite: $\mathrm{Chm} 216 \mathrm{~b}, \mathrm{Chm} 231 \mathrm{~b}$ or consent of instructor.

Chm 497 Independent Study (3)
Individual, independent study of selected topics. Open to majors in chemistry with the consent of the department chairman. May be repeated for credit.

## CHINESE STUDIES PROGRAM

(Interdisciplinary)

FACULTY: L. Chung, H. Sun, R. Walton ASSOCIATE FACULTY: K. Chen, L. Fields, R. Garvin, T. King, N. Lin, C. Sun

The interdisciplinary major with a concentration in Chinese Studies offers to students basic instruction in Chinese language, literature, and historical background and also provides for various courses of independent study in Hu manities (art and literature) and Social Sciences (economics, sociology, geography, anthropology, and law). Students interested in this major should apply through Professor Ling Chung, Director of the Chinese Studies Program.
$\checkmark \int_{\text {Chm 407 Atmospheric Chemistry (4) }}$
Same as Atm 407; offered jointly with the Department of Atmosheri Science.
Chm 408 Survey of Polymer Chemistry (3)
A shared resource course with Chm 508. Structure, synthesis and morphology of polymers; polymerization reactions; molecular weight determination; introduction to thermal, mechanical and electrical properties; design of polymers, graft and copolymers; processing and selected applications including adhesion and coatings and films. Three class meetings each week. Prerequisite: Chm 340 b or consent of the instructor.

## Chm 410 Mathematical Methods in Theoretical Chemistry -(3)

An introductory survey of the mathematical techniques that form the tools of the modern worker in theoretical chemistry with approprate applications. Topics include vector and matrix algebra, curvilinear coordinate systems, complex function theory and contour integrals. Fourier analysis, solutions of ordinary and partial differential equations, eigen value problems and the theory of groups. Three class periods each week. Prerequisite: Mat 212; Chm 340 a; or consent of the instructor.

## Chm 412 Organic Synthesis (4)

Synthesis of organic compounds and the separation and identification of products via fractional distillation and gas, paper, column, and thin layer chromatography. The inherent limitations of these separation methods and the type of systems to which each method would be applicable will be examined. Two class periods, two laboratory periods each week. Prerequisite: Chm 217 b or Chm 218 b.

## Chm 420 Inorganic Chemistry (3)

Extranuclear atomic structure and its relation to the properties of the elements and their compounds, description of the chemical bond with application to inorganic compounds, transition metal complexes. Three class periods each week. Prerequisite: Chm 340 b (may be taken as corequisite).
Chm 421 Inorganic Chemistry Laboratory (2)
Inorganic synthesis and application of physical measurements to the study of inorganic compounds. Two laboratory periods each week. Prerequisite: Chm 420 (may be taken as corequisite).
Chm 423 Introduction to Organic Research (3)
The theory and practice of modern methods of handling, separation and characterization of compounds. One class period, two laboratory periods each week. Prerequisite: Chm 340 b (may be (taken as corequisite) or Chm 218 b .

## Chm 426 Undergraduate Research in Chemistry (3)

Original experimental and theoretical research problems. Graded S/U, may be repeated for a maximum of five sessions. Laboratory and conference hours to be arranged. Prerequisite: consent of the department chairman.

Chi 210 Survey of Classical Chinese Literature I (3)
An introduction to the major works of Chinese literature from The Book of Songs ( $1100-600$ B.C.) to poetry and the short stories of the T'ang Dynasty (618-904 A.D.). Readings in English translation. Knowledge of Chinese not required. Reading of short selections from the original texts for those who have taken Chinese 201 and above. Prerequisite: None.

Chi 211 Survey of Classical Chinese Literature 1 I (3)
An introduction to the major works of Chinese literature from the Sung (960-1279) to the Ch'ing Dynasty (1644-1911). Readings in English translation of the poems, plays, and fiction of this period. Knowledge of Chinese not required. Reading of short selections from the original texts for those who have taken Chinese 201 and above. Prerequisite: none.

## JChi 220 Chinese Calligraphy (3)

Practical instruction in the artistic design and the different styles of written Chinese with the traditional implements: brush, rice paper, ink plate, and ink bar. No knowledge of the language is required.

## Chi 300 a and $b \quad$ Intermediate Conversation and Composition (3, 3)

Intensive oral practice; building of vocabulary; systematic grammar review. Short stories by modern Chinese writers, a survey of Chinese history, introduction to newspaper Chinese. Conducted in Chinese. Three classes, one laboratory each week. Prerequisite: Chi 201, Chi 300 a ais_a_prerequisite-for-Chi-300-b

## Chi 410 Readings in Vernacular Literature (3)

Extensive readings in Chinese vernacular literature in classical and modern periods. Lecture and discussion conducted in Chinese.

Chi 421 Documentary Chinese (3)
Annotated selections from newspapers, magazines, and other nonliterary documents. Texts largely in simplified characters now used in People's Republic of China.

## Chl 497 independent Study in Chinese (1-6)

Projects in selected areas of Chinese studies, with regular progress reports. Supervised readings written in the Chinese language. May be repeated once for credit when topics differ. Prerequisite: Chi 202 or the equivalent and consent of the department.

A student exchange program co-sponsored by State University of New York at Albany and Nanyang University of Singapore offers students who have taken Chi 101, 102, 201, and 202 an opportunity to spend a year (usually the junior year) at Nanyang University furthering their knowledge of the Chinese language and pursuing selected area studies. Nanyang credits are duly recognized by SUNYA.

## Special Programs or Opportunities:

SUNYA has an exchange program with Nanyang University in Singapore. This program provides students with an opportunity to study Mandarin at the Language Center of Nanyang University. One term of intensive Mandarin at Nanyang will substitute for two terms of Chinese language at SUNYA. A major of this program is encouraged to study at Nanyang after, at least, taking Chi 101 and 102 at SUNYA.

Mandarin Program in the Language Center of Nanyang University: intensive language courses: Mandarin 101-102; Mandarin 201-202; Mandarin 301-302 Mandarin 401-402.

## Degree Requirements for the Interdisciplinary Major with a Concentration in Chinese Studies

B.A.: Required courses: 37 credits as follows: Chi 101 and 102; Chi 201 and 202; Chi 210; Chi 211; Chi 300 a and b ; Cwl 180 ; His 379 a and b ; and 9 additional credits as advised from the following: Chi 220; Chi 410; Chi 421; Chi 497; Cwl-399 a, b; Eco 497; Soc 497- a, b; Ant $498 \mathrm{a}, \mathrm{b}$ or other advanced credits approved by the adviser. / This is a 46 credit interdisciplinary major.

Chi 101 Elementary Chinese (4)
Introduction to the national language (Kuo-Yï). The emphasis will be on oral work inoluding training in pronunciation (Mandarin), drill in structure, and analysis of the differences in approach to the expression of ideas in Chinese and English. There will also be some study of a limited number of ideographs selected on the basis of word counts. Four classes, two laboratories each week.

## Chi 102 Elementary Chinese (4)

Continuation of Chi 101. Equal emphasis will be placed on speaking, reading, and writing of characters. Prerequisite: Chi 101. Four classes, two laboratories each week.

## Chi 201 Intermediate Chinese (4)

A continuation of spoken and written Chinese at the intermediate level with a review of grammar; composition and conversation. Prerequisite: Chi 102.

## Chi 202 Intermediate Chinese (4)

A continuation of spoken and written Chinese at the intermediate level; composition and conversation. Prerequisite: Chi 201.

Cla 209 Roman Archaeology (3)
The ancient monuments of Rome and of other Roman and Etruscan sites, including Pompeii and Ostia.
$\sqrt{\text { Cla }} 402$
Greek Sculpture (3)
A study of selected sculptural monuments from the Archaic, Classical, and Hellenistic eras, considered in relation to their hisforical, intellectual, and religious context.
Cla 430 Principles and Methods of Classical Archaeology (3)
Study of the aims and procedures of archaeology. Excavation reports from Greek and Roman sites (supplemented from the expexience of staff members) will be analyzed for techniques of recovery, recording, and interpretation of archaeological data. Besides such strictly archaeological techniques as stratification and pottery analysis, correlation with historical evidence will also be covered.

Cla 450 Archaeology of Southern Italy and Sicily (3)
Study of Greek art and civilization in Italy and Sicily, with special attention to both the essential Greekness and the regional peculiarities of the western Greek cities and to relations between Greeks and non-Greeks.
Cla 460 Greek Architecture (3)
The development of Greek monumental architecture from the earliest temples through the Hellenistic Age.
CII 497 Independent Study (2-4)
Seniors may offer two to four credits of independent study in place of regular course-work in Classics. Projects must be approved by the department. May be repeated once.

Certain courses in classical archaeology may by advisement be elected for credit in art history. See course offerings in Art History.

## Greek and Roman Civilization Degree Requirements for the Major in Greek and Roman Civilization

## General Program

B.A.: A minimum of 36 credits to be distributed as follows:

1. Clc 133 and Cle 134, to be completed before the junior year (6).
2. Clc 320 , Clc 321 , Clc 330 , Clc 331 (12).
3. One course in Greek or Latin above the 100 level, as advised (3).
4. Additional courses, as advised, in the Department of Classics, or in other departments if the content is per-

## DEPARTMENT OF CLASSICS

FACULTY: S. Barnard, M. Goggin, J. Overbeck, H. Pohlsander, D. Prakken, P. Wallace, L. Williams.
ADJUNCT FACULTY: V. Karageorghis (Department of Antiquities, Nicosia, Cyprus).
|TASSOCIATE FACULTY: J. Gould (Department of Philosophy), H-Norten-(School of Education), CB. Peabody (Department of Comparative and World Literature)
The Department of Classics tries to make the values of the world of ancient Greece and Rome become alive and meaningful for its students and thereby to enrich their minds and lives. To this end the department offers courses in classical archaeology, in Greek and Roman civilization, in Greek, and in Latin. A major in Greek and Roman civilization is available through the general program; a major in Greek through the general program and the departmental program; and a major in Latin through the general program, the teacher education program, and the departmental program. A limited number of courses in Modern Greek Studies is also provided. The department is anxious to serve not only its majors but all students in the University.

## Special Programs or Opportunities:

The department will assist students who seek placement in summer or academic-year programs in Greece or Italy. The department sponsors public lectures, museum excursions, and other special events. Students graduating from the department may enter secondary-school teaching, graduate study in classics, or professional programs in law, library science, theology, and other fields.

## Classical Archaeology

No major is offered in Classical Archaeology. Students with an interest in this field should, after consultation with the department, choose one of the other major programs offered by the department.

No knowledge of Greek or Latin is required for these courses:
Cla 208 Greek Archaeology (3)
A survey of the pre-historic and historical cultures of ancient Greece, as revealed by archaeology, from the Neolithic to the Hellenistic era, with emphasis on the evolution of pottery style, painting, sculpture, and architecture.

Clc 300 The Greeks and Their Neighbors (3)
The relations of the Greeks with the Near East and with Rome. Readings in English from the works of five Greek historians: Herodutus, Thucydides, Xenophon, Arrian, and Polybius.
Clc 301 Rome and the Mediterranean World (3)
The Romans' view of their origin and their destiny in the Mediterranean World. Readings in English from the works of five Roman historians: Livy, Sallust, Caesar, Tacitus, and Ammianus.

## Clc 310 Women in Antiquity (3)

A study of the literary, historical and archaeological evidence concerning the lives and roles of women in Greek and Roman society.
Clc 320 The Minoan-Mycenean Age (3)
This' course uses all available resources of history, art and archaeology, geography, and literature for an area study of the Minoan-Mycenaean Age. Prerequisite: Clc 133 or Cla 208.
$\sqrt{\text { Clc } 321 ~ F i f t h ~ C e n t u r y ~ A t h e n s ~(3) ~}$
This course uses all available resources of history, art and archaeology, geography, and literature for an area study of Fifth Century Athens. Prerequisite: Clc 133 or Cla 208.
Clc 330 Rome: From Republic to Empire (3)
This course uses all available resources of history, art and archaeology, geography, and literature for an area study of Rome in the transition from Republic to Empire. Prerequisite Cle 134 or Cla 209.
Clc 331 The Age of Trajan and Hadrian (3)
This course uses all available resources of history, art and archaeology, geography, and literature for an area study of the age of Trajan and Hadrian. Prerequisite: Clc 134 or Cla 209.

## Clc 403 Roman Civilization and Christianity (3)

Roman civilization in the late empire: the relation between pagan and Christian culture based on a study of literary and archaeological sources.
$\sqrt{\text { CII }} 497$ Independent Study (2-4)
Seniors may offer two to four credits of independent study in place of regular course-work in Classics. Projects must be approved by the department. May be repeated once.

## Ancient Greek Degree Requirements for the Major in Ancient Greek

## General Program

B.A.: A minimum of 33 credits, including 24 credits in Greek language and literature above Clg 203 a ; also Cla 208, Clc 133, and Clc 134.
tinent to this major. At least two of these additional courses must be upper division courses or courses in Greek or Latin above the 100 level (15).
/No knowledge of Greek or Latin is required for these courses:

Clii 105 Myths of the Greek World (3)
A survey in English of the origin and development of the major myths of ancient Greece.

CIa 106 Religion of Ancient Greece and Rome (3)
A study of the major religious cults, institutions, and practices of Greece and Rome from the Late Bronze Age to the age of Gdnstantine.

## Cia $1+\begin{gathered}\text { (Owl 110) } \\ \text { ( }\end{gathered}$

A study of various types of Roman poetry, including lyric, epic, and dramatic, with consideration of their role in the development of the Western Literary tradition.

Clii 720-(Cwl 122) Greek Epic Poetry (3)
Homer's Iliad and Odyssey and the works of Hesiod.
Ic (28) Masterpieces of Greek Tragedy and Comedy (3)
Selected plays of Aeschylus, Sophocles, Euripides, and Aris-
tophanes.
*red below
CIG 133 History of-Ancient-Greece-(3)
The antecedents of Greek culture in the Ancient Near East, the
Aegean culture, the rise of Greece, the development of Athenian democracy, the decline of Greece, and the Macedonian conquest.

CIa 134 History of Ancient Rome (3)
Alexander the Great and the Hellenistic Age, the rise of Rome, the Republic and the Empire.

## Clc 140 Latin Elements in English (3)

A systematic study of those elements of the Latin language that have made it the single principal source of modern English vocabulay. Designed for students with no knowledge of Latin.
Tlc 141 Greek Elements in English (3)
A systematic study of those elements of the Greek language that have contributed to the formation of modern English vocabulary, both general and scientific. Designed for students with no knowledge of Greek.

## Cliche 2.77 -Greek Life (3)

A study of the socrates, political economic, and cultural life of ancient Greece with emphasis on Athens and-spartavery, 12177
CIč240 Roman Life (3)
Studies of theonmily amusernents, economy, political life, education and philosophy of the Romans.
86 *TLC 117 WORLD CLASSIC GREECE (3) $\sqrt{\text { OLE } 118 \text { wORLD CLASSIC ROME (3) }}$ CLC I25 LATIN rOREEK ELEMENIS IN E ENG :(3) EFF 578

History, six in Archaeology, six in Greek and Roman Civilization and three in Ancient Philosophy. Part II- 15 credits. These credits must be chosen from Art, Comparative Literature, English Literature, History and Philosophy. Part fII-26-40 credits of electives.

## CIf 101 a and b Elementary Latin $(4,4)$

Grammar, composition, conversation, and reading of Latin. Prerequisite for Cll 101 b : Cll 101 a or consent of instructor.
Cll 201 a and b Introduction to Latin Literature (4, 4)
Selected readings from prose authors, especially Cicero, and from Latin poetry. Prerequisite for Cll 201 a: two years of high school Latin or Cll 101 b . Prerequisite for Cll 201 b : Cll 201 a or fonsent of instructor.
CII 204 a and b Latin Literature (3, 3)
Cicero (selections from De Amicitia and De Senectute), Catullus (selections), Horace (selected odes). Prerequisite: three or four years of high school Latin or Cll 201 b.

## ClI 312 a and b Prose Reading and Composition (3, 3)

Readings in Livy and other selected prose authors. Studies in prose style and practice in prose composition. Prerequisite: Cll 204 b.
CII 403 Ovid (3)
The-Fasti, a storehouse of folk tradition, and the Metamorphoses; Ovid's place in the history of the Latin epic, and his influence on subsequent European literature. Prerequisite: Cll 204 a, or Cll 204 b , or consent of instructor.
CII 404 Great Roman Writers of Letters (3)
Selected letters of Cicero and Pliny, with a study both of their epistolary style and of the letters as an important source for the history of the Roman Republic and of the Empire. Prerequisite: Cll 204 a, or Cll 204 b, or consent of instructor.

CII 405 Latin Pronunciation and Conversation (3)
Examination of the evidence for the classical pronunciation of Latin and of the underlying theory. Practice in reading aloud Latin prose and verse, and in the use of conversational Latin. Prerequisite: cll 204 a, or Cll 204 b, or consent of instructor.
CII 414 Critical Studies in Cicero and Caesar (3)
Intensive and extensive reading of selected works of Cicero and Caesar (selections not to be limited to those usually read in the high school), a study of the interacting forces and personalities of the period, and an introduction to the literature on the men and their times. Prerequisite: Cll 204 a , or Cll 204 b , or consent of instructor.
CII 421 Roman Elegiac Poets (3)
Selections from Tibullus, Propertius, and Ovid. Prerequisite: Cll 312 a, or Cll 312 b , or consent of instructor.

## Departmental Program

B.A.: Part I-65-79 credits including 30-44 credits in Greek, at least 12 of which must be at the 300 level or above, 14 credits in Latin, six credits in Ancient History, six in Archaeology, six in Greek and Roman Civilization, and three in Ancient Philosophy. Part II- 15 credits. These credits have to be chosen from Art, Comparative Literature, History, and Philosophy. Part III-26-40 credits of electives.

Clg 101 a and b Elementary Greek $(4,4)$
Introduction to Attic Greek Composition, and reading of selected passages of Attic prose. Prerequisite for Clg 101 b : Clg 101 a or consent of instructor.

Clg 203 a and b Introduction to Greek Literature (4, 4)
Review of grammar and selected readings from Greek prose and (poetry, especially Plato and Attic tragedy. Prerequisite for Clg 203 a: Clg 101 b. Prerequisite for $\mathrm{Clg} 203 \mathrm{~b}: \mathrm{Clg} 203$ a or consent of instructor.

Gig 402 Greek Philosophy (3)
Reading and discussion of texts selected from the writings of the major Greek philosophers. Prerequisite: Clg 203 b .

## Clg 410 The Homeric Epics (3)

Reading of selections from the Iliad and the Odyssey; discussion
of Homeric style, language, and meter and of the technique of oral composition. Prerequisite: Clg 203 b.

## Cll 497 Independent Study (2-4)

Seniors may offer two to four credits of independent study in place of regular course work in classics. Projects must be approved by the department. May be repeated once.

## Latin

## Degree Requirements for the Major in Latin

 General Program and Teacher Education ProgramB.A.: A minimum of 33 credits. 24 credits in Latin above Cll 201 a, including Cll $204 \mathrm{a}, \mathrm{b}$, Cll 312 a , b, and additional credits on the 400-500 level as advised. Also Cla 209, Clc 133, and Clc 134.

## Departmental Program

B.A.: Part I-65-79 credits, including 30-44 credits in Latin, at least 12 of which must be at the 300 level or above, 14 credits in Greek, six credits in Ancient Greek
tural areas such as medieval studies, literature and the arts, oral literature and folklore, and the study of individual genres.

The department offers the B.A. and M.A. degrees in comparative literature. Students in the comparative literature programs receive preparation appropriate for the teaching of literature at various levels, advanced graduate studies in comparative literature or foreign or classical languages, and careers in such fields as publishing, journalism, and creative writing.

## Special Programs or Opportunities

Students in comparative literature are urged to participate in study programs offered by SUNY abroad (e.g. at Würzburg, Nice, Neufchatel, Madrid, etc.). These foreign study programs help students achieve proficiency in foreign languages, and provide experience in a variety of approaches useful for research and teaching literary studies.

## Degree Requirements for the Major in Comparative Literature*

## General Program

B.A.: The B.A. in Comparative Literature is a Departmental Program, and students seeking this degree should consult with the department as early as possible. The program requirements are:
(A) 30 credits in literature courses distributed as follows: 18-24 credits in literature courses in one language (English or foreign); 6-12 credits in literature courses in a second language (English or foreign).
(B) 24 credits in comparative literature courses designated by the department, including a minimum of 12 credits at the 300 level or above. This group should include Cwl 335a or Cwl 335b and one course each in a period, a genre, and a special topic.

In addition, the student is required to write a senior essay in conjunction with independent study (up to nine credits in Cwl 399 may be taken) and to pass a senior oral evaluation based on major works of world literature selected from the departmental list of required readings.

[^4]
## Cll 445 Roman Comedy (3)



Reading and analysis of selected comedies of Plautus and Terence. Study of the development of Roman drama and theatrical presentation. Prerequisite: Cll 312 a , or Cll 312 b , or consent of instructor.

## CII 481 Latin Pastoral Poetry ( ${ }^{(3)}$

Readings in the Eclogues and Georgics of Vergil. Prerequisite: Cll 312 a, or Cll 312 b , or consent of instructor.
Cll 497 Independent Study (2-4)
Seniors may offer two to four credits of independent study in place of regular course-work in classics. Projects must be approved by the department. May be repeated once.

## Modern Greek Studies

No major is offered in Modern Greek Studies. Courses in this field do not apply to the requirements in other programs offered by the department. Related courses are available from the Department of History and the Program ( in Art History.
Cmg 101 a and b Elementary Modern Greek (4, 4)
Introduction to Modern Greek. Oral practice, composition, and reading of selected works in poetry and prose. Prerequisite for Cmg 101b: Cmg 101a or consent of instructor.
Cmg 205 Modern Greek Civilization (3)
A study of the cultural background of the modern Greek nation from the Byzantine period to the present.
Cmg 206 The Land of Greece (3)
A survey of the physical environment of Greece and its effects upon Greek history and civilization. Both ancient and modern sources will be consulted.
Cmg 497 Independent Study (2-4)
Independent study in Modern Greek language and literature. Projects must be approved by the department. May be repeated once.

## DEPARTMENT OF COMPARATIVE AND WORLD LITERATURE

FACULTY: F. Beharriell L. Chung, R. Greene, H. Maclean, C. Odenkirchen, B. Peabody, H. Sun, J. Szoverffy
The principal objective of the department is to provide a broad intellectual basis for the study of literature. To meet this objective, the program requires the study of literature in at least two languages. Students may further specialize in a number of interdisciplinary and intercul-

## Cwl 116 Italian Literature in English Translation (3)

Select authors and works from the 12 th to the 20 th century chosen for their intrinsic literary stature (such as Dante and Leopardi) or for their influence in European culture (e.g., Castiglione, Machiavelli and Vico) or for their importance in the development of literary types and genres (e.g., the Renaissance epic, the pastoral). Closed to majors in Italian, or to those with credit in Ita 311 a and b.

## Cwl 120 French Literature in English Translation (3)

Major literary and intellectual movements as well as individual authors and works, chosen not only for their intrinsic worth, but also for their relationship to other European literature. Closed to majors in French, or those with credit in Fre 261 and 262.

## Cwl 145 Primitive Literature (3)

A study designed to trace the development of primitive literature from its ritualistic beginnings to its present state of acculturation, and to investigate the origins and methods of primitive expression, as well as the human needs which inspired them.

## Cwl 180 Modern Chinese Literature in Translation (3)

Modern literary movements under the Western impact, with emphasis on the developments since 1919.

## Cwl 201 Oriental Literature: Epic and Fiction (3)

Critical readings of major epics and novels from the traditional cultures of Middle, South, Southeast, and Far Eastern Asia. Read-ings_and-lectures-in-English.

## Cwl 202 Oriental Literature: Drama and Lyric Poetry (3)

Critical readings of the major works of drama and lyric poetry from the traditional cultures of Middle, South, Southeast, and Far Eastern Asia. Readings and lectures in English.

## Cwl 204 Literature and Mysticism (3)

Mystical and spiritual qualities of literature, surveyed in various literary periods. Many of the great literary works demand a deeper interpretation of their underlying esoteric meanings. Leading writers and great books of world literature are included in this survey.

## Cwl 210 Masterworks of Western Literature: Homer to Dante (3)

Readings and discussions of selected works by major Western authors from Homer to Dante. A variety of approaches furnish a broad base for the understanding of literature and for the development of analytical skills.

## Cwl 211 Masterworks of Western Literature: Boccaccio to Rousseau (3)

Readings and discussions of selected works by major Western authors from Boccaccio through Rousseau. A variety of approaches furnish a broad base for the understanding of literature and for the development of analytical skills.

## Cwl 221 The Poem: Texts and Comparative Interpretations (3)

Poems from French, German, Italian, Portuguese and Spanish literatures with original texts, translations, and interpretations by

The student is encouraged to specialize in areas such as medieval studies, folklore, and narrative, or to develop some other specialization with the help of the chairman and adviser. The 66 elective credits should be used to supplement the student's specialization with courses taken in other literary areas, Music, Art, Archaeology, Sociology, Rhetoric, Psychology, and so forth.

Students must have or acquire knowledge of at least one foreign language, either studied in high school or on the college level. While knowledge of another foreign language is not mandatory, the department urges- students to develop at least reading knowledge in a second foreign language.

## Teacher Education Program

Students in the Department of Comparative and World Literature may qualify for provisional certification to teach in a specific, certifiable area (e.g. a foreign language, English, etc.) by completing the academic and professional requirements of the registered programs. Details of these programs are available from the chairman of the department or from the Admissions Office, School of Education.

## Cwl 103 Masterworks of Western Literature: 19th and 20th Centuries (3)

Readings and discussions of selected works by major Western authors of the last two centuries. A variety of approaches furnish a broad base for the understanding of literature and for the development of analytical skills.

## Cwl 108 Foundations of Western Literature (3)

Tradition and rationalism: a study of the fusion of cultural traditions in the eastern Mediterranean and the institutionalization of these in writing that produced the literary models for later European culture.

## Cwl 112 Hispanic Literature in English Translation (3)

A selection of authors and works from the early Middle Ages to the present, representative of Spanish values and thought and important for their place in World Literature. Not open to majors in Spanish or to those with credit in Spn 211 a and b.

## Cwl 114 German Literature in English Translation (3)

Major literary and intellectual movements, as well as individual works and authors of Germany, Austria, and Switzerland. Closed to majors in German.
Cwl 115 Modern Dutch and Flemish Literature in Translation (3)
Reading and discussion of representative works by the major Dutch and Flemish authors of the 20th century with special emphasis on the "Magical-Realism" movement.

## Cwl 369 Faust: 1587 to Present (3)

The Faust tradition in Westem Culture as seen in various literary texts from the Faust Chapbook of 1587 up to our own day.

## Cwl 377 European Romanticism (3)

An introduction to the romantic movement, particularly in Germany, England, and France. Discussions of representative themes and ideas as well as of literary forms and techniques.

## Cwl 380 Flaubert to Musil: Topics in the Modern Continental Novel (3)

The changing role of the narrator, shifts in the portrayal of the external world, the primacy of the conscious versus the unconscious, memory, and perception.

## Cwl 388 (Fre 388) Don Juan Tradition (3)

A comparative study of the Don Juan theme in the literature of the West from the 17th century to the present. (Tirso de Molina, Molière, Byron, Lenau, Shaw, Anouilh, Duncan, Etc.)

## Cwl 391 The Relation of Modern Literature and Politics (3)

Novel, drama, and lyrics as means of political propaganda and expression of political realities. Satire and pamphlet literature. The reflection of great events of history in novels of the 19th and 20th centuries.

Cwl 399 a and b Directed Study (2-8), (2-8)
Supervised readings, assignments and discussions_arranged-according to the specific program and interests of the student. Admission by consent of departmental chairman only.

## Cwl 408 Patterns of Graeco-Roman Influence in Western Europe (3)

Study of the ways in which the great works of the classical tradition affected Western European culture from later medieval times until the twentieth century.

## CwI 411 Arthurian Legend in Medieval Europe (3)

A comparative study of Arthurian Romances in France, Germany and English. Social and political conditions reflected in the romances, their stylistic analysis, development of themes. Arthurian legend and the Holy Grail.

## Cwl 471 Dante's Divine Comedy (3)

The summit and the summing up of the literature and thought of an age. A detailed reading of the poem (in the original or in translation), with comparative studies of sources and influences. For majors in literature; others with consent of instructor. Not open to students with credit in Ita 421.

## Cwl 491 Literature and Culture in 17th Century Europe (3)

Readings from French, German, Italian, and Spanish Literature. Mutual relationship between literature, music, art and social forms. Genre and poetic forms. Investigation of the traditional terms "Baroque," "Classicism," etc. Readings in the original or in translations.
specialists in each field, coordinated with explanations of the technical aspects of the prosodies peculiar to the various literatures. No knowledge of the foreign languages will be necessary for full participation in the class.

## Cwi 281 Lave Poetry of the Western World (3)

A comparative study of love poetry from Roman times through the Middle Ages and modern literatures. Themes, poetic forms, social background, ideals, and tones in various stages. Selected texts and interpretations.

## Cwl 333 a and b Special Topics (3, 3)

Important intellectual expressions of man's spiritual, social and aesthetic life from ancient times to the present. Students may elect one or two sessions.

## Cwl 334 The Modern Theological Novel (3)

The development of the theological novel, its background and chief representatives, e.g., Dostoyevsky, Bloy, Bernanos, Mauriac, Lefort, Greene, Waugh, Lagerkvist, West, and Andres.

Cwl 335 a History of Criticism I (3)
Important theories and their application from Plato and Aristotle through the 18 th century.

## Cwl 335 b History of Criticism II (3)

Important theories of the-19th-and-20th-centuries-and their application.

## Cwl 341 Genre (3)

A consideration of the criteria for and the realization of the literary type.

## Cwl 342 Literary Expression (3)

A consideration of the problems and achievements of the writer in the creative act.

## Cwl 343 Creation and Environment (3)

A consideration of the effects of convention and circumstance upon literary production.

## Cwl 344 Symbolism (3)

A consideration of language characteristics and the relationship of those to literary form.

## Cwi 345 a and b Miyth (3, 3)

A consideration of mythic structure and its use and modification in various areas, and ages, from antiquity to modern literatures.

## CwI 355 Liferature Within the Arts (3)

An introduction to the comparative study of literature, music, and the visual arts: what art forms express and how they express it.

## Cwl 493 Littérature d'Expression Françalse en Afrique et aux Antilles (3)

Same as French 493.

## Cwl 496 Modern Drama to 1940 (3)

Same as Eng 496.
Cwl 498 Modern Drama after 1940 (3)
Same as Eng 498.

## DEPARTMENT OF COMPUTER SCIENCE

FACULTY: D. N. Arden, Y. Breitbart, E. Chylinski, F. Federighi, S. Finkelstein, S. Greenfield, E. Lamagna, F. D. Lewis, S. Lomonaco, Jr., E. D. Reilly, Jr., D. Rosenkrantz, W. Schilling, L. Sheppard

The objective of the department is to provide students with a broad in-depth training in computer science which will enable them to be responsive to the rapid changes taking place in the field. Our goal is to provide students with the necessary know-how to pursue careers in industry, research, and teaching.

To accomplish its objectives, the department offers a program leading to an M.S. degree in computer science and a full sequence-of undergraduate-eourses-leading-to-a second field.

Undergraduate courses in Computer Science are offered either as free electives or as the basis for a second field sequence of particular interest to students majoring in mathematics, natural science, business, economics, psychology, and, depending on career objectives, the humanities. Second field sequences in Computer Science should include at least Csi 201, 202, 301, 404, or 410. The remaining four credits may include either additional Computer Science courses or certain related courses in mathematics, logic, and linguistics offered by other departments.

In addition to electing the second field sequence in Computer Science, students preparing for graduate work in this field are encouraged to acquire a background in mathematics through differential equations and linear algebra.

## Csi 201 Introduction to Computer Science (4)

The use of the computer as a device for manipulating symbols and the processing of information; the concept of an algorithm and the use of flow charts to depict algorithms; programming in a machine-independent higher level procedure oriented language such as BASIC and FORTRAN.

## Courses Offered by Cooperating Departments

Cwl 110 Roman Poets and Playwrights (3)
Same as Cle 110.
Cwl 122 Greek Poetry from Homer to Aeschylus (3) Same as Clc 122.

Cwl 123 Greek Poetry from Sophocles to the Helienistic Age (3) Same as Cle 123.

Cwl 171 Modern Yiddish Literature in Translation (3) Same as Jst 171.
Cwl 172 Modern Hebrew Literature in Translation (3) Same as Jst 172.

Cwl 220 Theatre History (3)
Same as Thr 220.
Cwl 314 a and b Literature of the Spanish Portuguese Jews and New Christians (3)
Same as Jst 314 a and b .
Cwl 330 Historic Theories of Dramatic Production (3) Same as Thr 330.

Cwl 331 History of Dramatic Criticism (3)
Same as Thr 331.
Cwl 356 Tolstoy (3)
Same as Rus 356.
Cwl 357 Dostoevsky (3)
Same as Rus 357.
Cwl 362 Contemporary Rhetorical Theory (3) Same as Rco 362.

CwI 370 Talmudic and Medieval Jewish Literature in Translation (3)
Same as Jst 370.
Cwl 373 The Literature of the Holocaust in Translation (3) Same as Jst 373.

Cwl 375 Israeli Literature in English Translation (3) Same as Jst 375.

Cwl 376 Study of Individual Jewish Writer (3) Same as Jst 376.

Cwl 390 Old Testament Narratives (3)
Same as Eng 390.
Cwl 492 Forms of Modern Fiction (3)
Same as Eng 492.

Csi. 405. Introduction to Information and Coding Theory (3)
Coding to yemove redurdancy or to reduce errors due to noise and the fundamental limitations to these processes described by Shannon's theorems for the-binary symmetric channel. An introduction to error-correcting codes. Prerequisite:-Mat-362-or equivalent.

An introduction to the constructionsimulation and validation of models. The use of discrete and continuous simulation languages. Informal and formal desortition of models. Model simplification procedures. Formal odefifition and criteria for model validity. Goodngss of fit and statisticalmalidation. Basic structure of simulators

Csi 410 Logic Design of Microcomputers (3)
Fundamentals of logic design with application to the design of basic computer elements such as counters, adders, decoders. Design of instruction timing sequences, register structure, addressing techniques, interrupts and interfaces between asynchronously operating components. Application to micro-computer design. Prerequisites: Csi 202, Csi 302.
Csi 411 Computer Systems Laboratory (3)
Introduction to the EXEC 8 operating system on the UNIVAC 1110. Implementation of operating system functions on the INTERDATA. Offered in cooperation with the Computing Center. Prerequisite: Csi 202, Csi 410 or Csi 404.
Csi 497 Independent Study in Computer Sclence (1-3)
Independent study in computer science under the guidance of faculty computer users. Students registered for this course should expect to spend approximately ten hours per week solving real computer related problems. May be repeated for credit with the consent of the department chairman. Prerequisite: departmental approval.
Csi 498 Directed Activity in Computing (1-3)
For students interested in on-site participation in computer operations, serving as a consultant for beginning programmers or problem solving in a practical environment. Prerequisite: departmental approval.
Csi 499 Senior Seminar in Computer Science (3)
Selection of an appropriate topic and preparation of a research or survey paper under the direction of a specific computer science faculty member. Prerequisites: Csi 303 and consent of department chairman.
Csi506 (3)
[See cancelled Csi406 above frodescripturi]

## Csi 202 Programming Techniques (4)

Continuation of Csi 201. Topics covered include number systems, fdvanced features of FORTRAN, machine language programming, magnetic tape applications, sorting algorithms, and the use of an incremental plotting device. Prerequisite: Csi 201.

## Csi 203 Data Processing Principles (4) (3)

Programming in Common Business Oriented Language(COBOL). File maintenance techniques. Use of Report Generators. Source data automation. Information retrieval methods. Introductorysystems analysis. Pre requisites: Csi 201 and Msi 215. Fell 77

## Csi 301 Data Structures (3)

Internal representation in computer memory of various data structures such as lists, trees, graphs and arrays. Files and inverted files. Programming in an advanced procedure oriented language such as ALGOL or PL/1. Prerequisite: Csi 201.

## Csi 302 Discrete Structures (3)

Lattices and Boolean Algebra. Set theory, propositional logic, switching algebra. Deterministic and non-deterministic finite state machines and procedures. Regular grammars and languages. Graphs, trees and assiociated algorithms. Prerequisite: Csi §et. 20 lClld Mat 112 . (Fale77)

## Csi 303 Computer Programming Languages (3)

The description and application of such higher-level programming languages as ALGOL, SNOBOL, and APL. BackusNaur form. Reverse Polish notation. Decision Tables. Programs which automate the-manipulation-of-algebraic-formulas.-Prexequisites:-Csi got-and 802

## Csi 401 Numerical Methods for Digital Computers (3)

The study of practical methods for the numerical solution of a variety of problems on a digital computer. Topics covered will include roots of equations, numerical interpolation, numerical integration and differentiation; the evaluation of mathematical functions, least squares curve fitting; the solution of simultaneous linear equations, matrix inversion and linear programming. Prerequisites: Csi 301 or Csi 580, Mat 213.

## Csi 403 Algorithms and Data Structures (3)

Description of common data structures such as lists, push-down stores, queues, trees, and graphs. Definition of algorithm efficiency and efficient algorithms for integer and polynomial arithmetic, sorting, set manipulation, shortest paths, pattern matching and Fourier transforms. Prerequisite: Csi 301 (and 302 . (Fall 77 ) Csi 404 Computer Organization (3)

The architecture of several conventional computing systems compared and contrasted with such non-Von Neumann organizations as the Solomon and Holland machines. Other topics include data communication, associative memories, and machine features which facilitate multi-programming and time-sharing. Prerequisites: Csi 202 and Csi 铔202.

# DEPARTMENT OF ECONOMICS 

FACULTY: J. Auclair, M. Bers, K. Chen, J. Gelfand, J. Harford, H. Horowitz, R. Kalish, K. Lahiri, P. Lee, B. Lentz, T. Mirer, S. Ogura, T. Osborne, D. Reeb, E. Renshaw, L. Salkever, J. Slocum, J. Uppal, A. Virmani, F. Walker, G. Yohe, K. Yun.

The major in economics may be useful as training for employment in business or government agencies or as preparation for further study at the graduate level. It is also acceptable as undergraduate background for study in professional schools of law, accounting, business administration, public administration, social work and others.

## Degree Requirements for the Major in Economics

## General Program

B.A.: Eco 100 a and b, 320, or equivalent, 300, 301; and 18 additional credits in economics at the 300 level or above.
B.S.: Eco 100 a and b, 320, or equivalent, 300, 301; and 18 additional credits in economics at the 300 level of above.

## Eco 100 a and b Principles of Economics I, II (3, 3)

An analysis of the function of an economic system in organizing economic behavior and of the role of the market and monetary and fiscal policy in determining levels of economic activity. The emphasis in the first session will be on the institutional structure and the determinants of levels of economic activity, and in the second session on price analysis and the international economy.
Eco 181 Economics of Consumption (3) Descupe deluges
An economic 'nays is of consumption and the motives and plans of consumers. The impaet-of custom, fashion, wealth, income and expectations or consumption. Discussion of current issues as they affect the: consumer:

Vico 182 Economics and Environmental Policy (3)
The economics of public policies which aim at environmental control. Emphasis is given to the concepts of resource scarcity, externalities, and common property, as they affect the role of the public sector in environmental control.
Eco -183 Economics of War and Peace (3) Delete $12 / 77$ Meme

 roans, reconstruction, financing, inflation, and resource reallocation are discussed.

# PROGRAM IN COMPUTER SCIENCE AND APPLIED MATHEMATICS 

(Interdisciplinary)
FACULTY: Combined faculties of the Departments of Mathematics and Computer Science.
The interdisciplinary major-second field with a concentration in Computer Science and Applied Mathematics offers students the opportunity to achieve the following academic objectives:

1) the achievement of a mathematical background adequate for a large proportion of the computer applications in the engineering and business worlds; 2) the development of technical proficiency in computer programming and a basic understanding of computer structure; and 3) an introduction to those theories which have been spawned by the modern development of computation and communication.
This program addresses itself to the rapid past and prospective growth of computer software and application, and to the present and future need for persons capable of creative contributions to this area.

## Degree Requirements for the Interdisciplinary Major-Second Field with a Concentration in Computer Science and Applied Mathematics

## General Program

B.A.: ( 60 credits minimum, of which at least 12 credits must be in courses at the 300 level or above) including A Mat 112, 113, 212, 213, 362, 380; A Csi 201, 202, 301, $302,303,401,403,405,404$ or 410 ; B Msi 434,435 . Total credit requirements: 60 credits. See the appropriate sections of this bulletin for descriptions of the mathematics and computer science courses.

## Eco 350 Money and Banking (3)

The principles of money, of commercial banking, and of central banking, an elementary consideration of issues of monetary policy. Prerequisites: Eco 100 a and b.

## Eco 355 Public Finance (3)

An introduction to the financial problems of governments: public expenditures, basic kinds of taxes and tax systems, grants-in-aid, public borrowing, debt management, and fiscal policy. Prerequisites: Eco 100 a and b.

## Eco 360 International Economic Relations (3)

The development of international trade and trade theory since mercantilism; international financial institutions, the foreign exchange market, and the problems of international balance of payments and international liquidity. Prerequisites: Eco 100 a and b.
Eco 370 Economics of Labor (3)
A study of wage theories and wage structures; wage-cost-price interaction; and wage, supply and employment relationships. Prerequisites: Eco 100 a and b.

## $\sqrt{ }$ Eco 410 Mathematics for Economists (3)

Techniques of differentiation, integration, differential equations, difference equations and linear algebra as used in economic analysis. (shared resource course with Eco 510)

Eco 420 Applied Econometrics (3)
Application of regression to a problem chosen by the student. Some general discussion of data sources, the derivation of index numbers and other problems which might be encountered in astimating economic relations. Emphasis will be on class presentation and analysis of student projects.

## Eco 440 Comparative Economic Systems (3)

An analysis of capitalism, the mixed economy, socialism, and communism: the ways in which economic activities are organized; the role of monetary and financial institutions; the organization of industry; of agriculture, and of trade, the allocation of resources among competing goals; consumer sovereignty compared with economic planning. Prerequisite: Eco 100 a and b.

Ecqu42 The Economics of Agriculture (3)
Application ormeernomicminciples to problems of agriculture. $12 / 28$ Analysis of demand, supply max ie ti one mene farm praductsmodrefteres adopted and alternative approaches to $4 / 29$ b) solution of agricultural problems. Prerequisites: Eco 100 a and b. Eco 443 Comparative Labor Relations (3)

An examination of labor relations in various other countries as part of their political and economic systems; and a comparison with the collective bargaining process in the United States. The emphasis is on labor relations laws as they have developed within different political systems and the process of dispute settlement.

## Eco 184 Contemporary Economic Issues (3)

An introductory discussion of selected economic issues of current importance. The course will focus on different economic problems each session. May be repeated for credit when topics differ.

Eco 300 Intermediate Theory I: Microeconomics (3)
on Introduction tro price theory, distribution theory and market
DeScollstructure analysis. Releyarce of economic theary in production chorge gindeonsumption-decision:-Prerequisites:-Eco-100-a and-b.
1129 Eco 301 Intermediate Theory II: Macroeconomics (3)
Introduetion to the measurement of national tricome and the theories-ef-agyregaterdernand and supply; therretical analysis of grewth and fugtiations in production, emonloyment- and prices. Pxerequisites: Eco row and b.

## Eco 312 Development of the American Economy (3)

A study of American economic institutions from the early 19th century to the present. Statistical methods and both micro and macro theoretical constructs will be employed. Prerequisites: Eco 100 a and b .

## Eco 313 Development of the European Economy (3)

Economic change in modern European societies. A comparative study of the growth of various European countries emphasizing the institutions associated with development: population, technology, capital formation, output, resources, and income distribution.
Prerequisites: Eco 100 a and b.

## Eco 314 Ideas of the Great Economists (3)

The evolution of modern economics with emphasis on the contributions of such writers as Smith, Malthus, Ricardo, Mill, Marx, Marshall and Keynes. The turn of events that motivated the construction of the main body of economic knowledge is also examined.

## Eco 320 Economic Statistics (3)

Basic statistics and their use in economic analysis will be covered. Topics will be organization and presentation of data, frequency distributions, dispersion and probability distributions applied to economics. Will also cover testing of hypothesis and simple linear regression. Prerequisites: Eco 100 a and b.

## Eco 330 Economics of Development (3)

An introduction to the analysis of economic growth and development. Historical, descriptive and analytical approaches to the problems of fostering economic growth. Consideration of alternative theories of the causes and problems of underdevelopment.
Prerequisites: Eco 100 a and b.

## Eco 341 (Soc 371) Urban Economics (3)

An analysis of the city-metropolis and the economic forces which condition its growth, pattern and allocation of scarce resources. The public sector, especially the local governments is examined in its role of solving the problems of inadequate jobs, housing, education

## DEPARTMENT OF ENGLISH



FACULTY: T. Adams, J. Barlow, J. Berman, R. Bosco, D. Byrd, L. Chaber, S. Cohen, F. Colby, A. Collins, D. Daims, R. Donovan, D. Dorfman, W. Dumbleton, J. Fetterley, J. Gerber, R. Goldman, M. E. Grenander, G. Hastings, E. Jennings, M. Kaufman, W. Knotts, C. Koban, E. LeComte, T. Littlefield, H. Maclean, E. Mirabelli, R. Nelson, D. Odell, D. Redding, J. Reilly, L. Ries, R. Robbins, D. Rosenblum, B. Rotundo, W. Rowley, M. Rozett, J. Schulz, F. Silva, E. Sklepowich, T. Smith, H. Staley, D. Stauffer, M. Taylor, R. Thorstensen, P. Westbrook.

The curriculum of the English Department is designed to aid students to write effectively, to read critically, and to acquire a sense of the development of literature written in English and of its relation to society.

## Degree Requirements for the Major in English

## General Program

B.A.: 36 credits_in_English-with-at-least-6-eredits-at-the 300 level and at least 6 credits at the 400 level.

Other than the distribution pattern described above, there are no specific requirements. Working closely with a departmental adviser, the student builds his or her own coherent sequence of courses. In order that students be able to make as informed a selection as possible amongst the upper level courses, they should use their basic courses to explore genres and subject matter unfamiliar to them.

## Teacher Education Program

B.A.: 36 credits in English with at least 6 credits at the 300 level and at least 6 credits at the 400 level.

Students preparing for provisional certification will be required to include courses in their program (one from group $A$, one from group $B$, one from group $C$, one from group D) which will develop their ability (A) to think and write critically (B) to read and discuss literature critically and analytically (C) to understand the relationships between literature and society and (D) to understand the history and/or structure of the language.

# ECo 446 International Finance (3) 

The foreign exchange market and balance of international payments are described and analyzed. Emphasis is on real and monetary theories of balance of payments adjustments, and policies. Problems and proposals for reform of the international monetary systems are examined and evaluated. (shared resource course with Eco 546) Prerequisites: Eco 100 a and b.

Eco 450 Industrial Organization and Public Control of Industry (3)
Relationship between market structure, behavior of the firm, economic performance and analysis of U.S. antitrust activities. (shared resource course with Eco 570) Prerequisite: Eco 300

## Eco 452 Economics of Law(3) $12 / 73$ memo $4 / 29 / 77$

 Eco 456 State and Local Finance (3)Problems of financing state and local government within the constraints of a federal system. Relevance and limits of fiscal theory for state and local government tax and expenditure policy.

## Prerequisites: Eco 100 a and b.

## ECO 462 DISTR1B

## Eco 470 History of the Labor Movement (3) <br> mume $4 / 29 / 79$

Emergence of trade unions as allocative factors in the economic systems of the United States and Western Europe. Development of trade unions and the general labor movement as part of the institutional structure.

Eco-480-Economic-Fluctuations, Forecasting-and-Stabilization-(3)
An examination of the theory and measurement of economic fluctuations, methods of forecasting the level of economic activity; and the fiscal, monetary and other public policies used to achieve economic stabilization are explored. Prerequisite: Eco 301 or Eco 350.

## Eco 481 Environmental Economics (3)

Environmental pollution, social costs, population control, zoning, economics of public health, conservation of endangered species, natural wonders and artifacts, natural resource exhaustion, and end of progress hypothesis are examined and analyzed. (shared resource course with Eco 581) Prerequisites: Eco 100 a and b.

Eco 489 Senior Seminar in Contemporary Economic Theory (3)
Selected topics in current economic theory. The course is designed to give the advanced undergraduate major an opportunity for intensive study in selected topics in contemporary economic theory. The course may be repeated for credit. Prerequisite: consent of instructor.

Eco 497 Independent Study and Research (2-6)
Guided study in selected topics. Prerequisite: 12 credits in economics. Can be repeated for credit to total of six credits.

Eng 210 The English Literary Tradition I: From the Anglo-Saxon Period through Milion (3)
A study of representative works by major authors from the AngloSaxon Period through Milton, with some attention to necessary historical, biographical, and intellectual background information. The survey will provide a sense of continuity and change in the English literary tradition, offering broad overviews of extended offronological periods.

Eng 211 The English Literary Tradition II: From the Restoration through the Modern Period (3)
A study of representative works by major authors from the Restoration through the Modern Period, with some attention to necessary historical, hiographical, and intellectual background information. The survey will provide a sense of continuity and change in thé English literary tradition, offering broad overviews of extended ghronological periods.
Eng 213 Popular Literature (3)
Individual sections may concentrate on some aspect of popular culture such as the best seller, song lyrics, detective or mystery fiction, science fiction, books that have had a vogue on the campus during the last twenty years. The student may take the course twice fôr credit, provided the particular subject matter is not repeated.

## Eng 283 Contemporary American Novel (3)

Forms, techniques, and themes of the novel, as exemplified by a number of American-novels-of the-past 25 years.

## Eng 294 Modern Drama From Ibsen (3)

A survey of modern European and American drama from naturalistic theatre to post-modern theatre. Dramatists to include Ibsen, Chekhov, Shaw, O'Neill, Brecht, Ionesco, Williams, Pinter, and others.
Eng 300 Critical Writing (3)
Exercises in literary description and literary criticism; attention to various critical tasks and approaches and to the major resources of literary bibliography.

## Eng 301 Expository Writing (3)

Designed to develop precise and accurate non-technical writing in such fields as history, the social and natural sciences, philosophy, and the fine arts. Students will choose their own subjects for several essays or one long essay. Admission is limited, and those seeking to enroll should submit a sample of their work to the instructor.
Pyerequisite: consent of the instructor.

## Eng 302 Creative Writing (3)

A course designed for the student who wishes to experiment with a variety of kinds of writing, but who has little experience. Admission is limited, and those seeking to enroll should submit a sample of their work to the instructor. Prerequisite: consent of the instructor.

Courses which will satisfy these requirements:
A. English 100; 200; 300; 301; 302; 303; 304; 305; 308
B. English 112; 113; 165; 201; 203; 283; 310; 315; 373; 465; 485; 492; 496; 498
C. English 202; 213; 389; 395; 396; 420; 430; 431; 440; 441; 450; 451; 460; 470; 471; 472; 480; 482
D. English 206; 207; 306; 307 (or satisfactory completion of a competency examination).

## Eng 100 English Composition (3)

Practice in writing papers of exposition, argument, and criticism, including at least one requiring research.

## Eng 112 Reading Prose Fiction (3)

An introduction to the analysis of plot, character, theme, point of view, and other matters dealing with the form and substance of the novel and short story.

## EEng 113 Reading Drama (3)

An introduction to the analysis of dramatic structure: plot, character, theme, setting, the function of dialogue.

## Eng 165 Reading Poetry (3)

An introduction to the analysis of idea, feeling, and verse form in poetry.

Eng 200 Intermediate Writing (3)
Practice-in-the-development-and-improvement of written expression of complex ideas. Prerequisite: Eng 100 or departmental permission.

Eng 201 Introduction to Literary Criticism (3)
An introduction to the theory and practice of literary criticism.

## Eng 202 Introduction to Literary History (3)

An introduction to the critical problems arising from the relationships between literary works and their eras.

Eng 203 Introduction to the Analysis of Ideas, Values, and Issues in Literature (3)
An introduction to working with serious intellectual constructs and setting up methods for the analysis of ideas, values, and issues.

## Eng 206 (Lin 206/Ant 220) Introduction to Linguistics (3)

The principles of modern structural, transformational, and hisforical linguistics, with English as the prime example in the examination of language and languages.

## Eng 207 The Language of Literature (3)

An introductory course in the application of linguistic and rhetorical principles to the reading of literary texts. Figures of speech, metaphors, symbols, rhetorical structures, and neologisms will be examined as they occur in poetry, fiction and drama.

Eng 337 Shakespeare through 1603 (3)
The development of Shakespeare's dramatic art, with emphasis on action and character in the plays. Primarily the comedies and histories through 1603.
Eng 338 Shakespeare after 1603 (3)
The development of Shakespeare's dramatic art, with emphasis on action and character in the plays. Primarily the mature tragedies, wjeh particular emphasis on Hamlet; attention also to the "dark gomedies" and the dramatic romances.
Eng 339 Undergraduate Shakespeare Seminar (4)
Selected problems in Shakespeare study for the student who already has some background in reading and interpreting Shakespeare. Prerequisite: Eng 337 or 338 or consent of the instructor.

## Eng 361 Study of a British Author (3)

The major British author to be studied in depth will vary from section to section and from session to session. The student may take the course twice for credit, provided a different author is treated.

## Eng 373 The American Novel (3)

A survey of the American novel in the nineteenth and twentieth centuries, paying attention to the development of the novel from its frigins in romance.

## Eng 377 The American Drama (3)

A survey of the American-drama-dealing-briefly-with-specimens of nineteenth century drama and more fully with the birth of the art theatre movement in America, its first notable playwright, O'Neill, and representative plays and movements in later American drama.
Eng 381 Study of an American Author (3)
The major American author to be studied in depth will vary from section to section and from session to session. The student may take tyle course twice for credit, provided a different author is treated.
Eng 389 Study of an Afro-American Author (3)
The major Afro-American writer to be studied in depth will vary from section to section and from session to session. The student may take the course twice for credit, provided a different author is tryated,
Eng 390 (Cwl 390) Old Testament Narratives (3)
The early books of the Old Testament in the King James translation considered as history, literature, and folk art. Evolution of the material and the text. Parallel developments in Greek and other literatures.
Eng 391 Biography and Autobiography (3)
Biography and autobiography are studied in terms of various and changing views of what constitutes a life story (inner life versus public life; objective factual biography versus subjective interpretive biography).

Eng 303 Writing Prose Fiction (3)
Advanced workshop in writing fiction. Admission is limited, and those seeking to enroll should submit a sample of their work to the finstructor. Prerequisite: consent of the instructor.

Eng 304 Writing Drama (3)
Advanced workshop in writing for the stage. Admission is limited, and those seeking to enroll should submit a sample of their work to the instructor. Prerequisite: consent of the instructor.

## Eng 305 Writing Poetry (3)

Advanced workshop in writing poetry. Admission is limited, and those seeking to enroll should submit a sample of their work to the instructor. Prerequisite: consent of the instructor.

## Eng 306 History of the English Language ( 3 )

The growth and development of English phonology, morphology, syntax, and semantics. The history of dialects and standards. Prerequisite: Eng (Lin) 206 or consent of the instructor.

## Eng 307 Approaches to English Grammar (3)

Traditional analysis of the sentence structure, word-building and accidence of English, reinterpreted and revised according to the most current linguistic insights.

## Eng 308 Journalistic Writing (3)

Expository writing that might be done for newspaper, magazine, radio or television journalism. Designed for students in the journalism second field but open to others. Admission is limited, and those seeking-to-enroll-should-submit-a-sample-of-their-work-to-the instructor. Prerequisite: consent of the instructor.
Eng 310 The British Novel (3)
Origins and development of the British novel, illustrated by careful attention to selected texts. Major authors include Fielding, Austen, Dickens, Eliot, Hardy, and Conrad.
Eng 315 Poetry in English (3)
A study of forms in poetry in English (the ballad, the sonnet, the satire, the heroic epistle, the ode, the dramatic monologue) and modes (meditative, lyrical, satiric, didactic, heroic) as they typify ftheir authors and their eras.

## Eng 317 Survey of English Drama (3)

A chronological study of representative plays from the Middle Ages through the 19th century.

Eng 325 Chaucer (3)
The medieval background and the ideas and narrative art in the poet's major works. No previous knowledge of Middle English is prequired.

## Eng 336 Milton (3)

Milton's poetry and selected prose, in the intellectual context of his time. Major emphasis on Paradise Lost, with appropriately detailed study of Comus, Lycidas, Samson Agonistes, and significant minor poems. In prose, emphasis on Of Education and Areopagitica.

Eng 440 English Literature of the Restoration and Early 18th Century (3)
Major poetry and prose of the Neoclassical period, with some attention to the social and philosophical background. This course will trace the development of such literary modes as satire, journalism, the personal diary, and didactic literature in Dryden, Pope, 8wift, Addison, Defoe, Pepys, Bunyan, and others.
Eng 441 English Literature of the Late 18th Century (3)
Poetry and prose of the age of sensibility from ballads to biography; selected works of Johnson, Boswell, Gray, Burns and others with attention to Gothicism, sentimentalism, the cult of the picturesque and sublime, the rebirth of lyxicism, and other new trends jf the period.
Eng 450 Literature of the Romantic Period (3)
The expression of the Romantic sensibility as found in the prose and poetry of Wordsworth, Coleridge, Byron, Shelley, Keats, and gthers.

## Eng 451 Literature of the Victorian Period (3)

Major mid-Victorian poets and essayists, the Pre-Raphaelites, and the Decadents, as they reflect the thought of the age.

Eng 460 Regional Studies in British Literature (3)
The regional literature of Great Britain and the literature written in English in the Commonwealth and in the former British possessions. Individual sections may deal with the literature of Ireland,
Scotland, Wales, Canada, Australia, New Zealand, India or various countries in Africa. The student may take the course twice for credit, provided the particular subject matter is not repeated.

Eng 465 Modern British Poetry (3)
Selected poets from Hardy to the present with emphasis on afalysis.
Eng 470 American Literature to 1815 (3)
Major poetry and prose of the Colonial and Federal periods, fith some attention to the theological and political backgrounds.

## Eng 471 American Literature 1815-1865 (3)

The works of the major writers of the Romantic period. Particular attention to the Transcendental writers and to the development of the American novel.

## Eng 472 American Literature 1865-1920 (3)

The major writings of the great period of American realism. Special attention to the development of critical theory, the local color writers, the development of the psychological novel.

## Eng 480 Regional Studies in American Literature (3)

The literature of various regions of the North American continent. Individual sections may deal with the literature of New England, of the American South, of the Old West, of Canada. The student may take the course twice for credit, provided the particular subject matter is not repeated.

A course treating a pairing of authors whose works mutually illuminate each other in their treatment of themes, declaration of artistic purpose, search for a viable style or relation to their eras. The authors studied may vary from section to section and from session to session. The student may take the course twice for credit, provided a different pairing is studied.

## Eng 395 The Presentation of Social Roles in Literature (3)

A study of the ways in which factors such as age, sex, class, and race are presented in literature. Individual sections may deal with the presentation of women, of the Black, of the Indian, of the aged, of the young, of the alien. The student may take the course twice for credit, provided the particular subject matter is not repeated.

## Eng 396 The Literature of a Subculture (3)

A course which presents writing by members of a given subculture. Individual sections may concentrate on the literature written by Afro-Americans, Jews, Catholics, etc. The student may take the course twice for credit, provided the particular subject matter is not repeated.

Eng 397 Independent Study and Research In English (1-4)
Prerequisite: Consent of a faculty member in the department and of the appropriate departmental committee. May be taken for a maximum of 8 credits.

Eng 399 Junior Seminar in English (6)
A seminar for qualified juniors: the topic for each term will vary and be announced in advance. The student may take the course /twice for credit, provided the particular subject matter is not repeated. Prerequisite: consent of the instructor.

## Eng 407 Old English (4)

Introductory course in the language of England before 1066 A.D. Students will learn to pronounce and translate selections in prose and verse illustrating the origins of English language, literature, and society. (Shared Resource Course)
Eng 420 Literature of the Middle Ages (3)
Selections from Old and Middle English literature (6501500 A.D.), exclusive of Chaucer, with attention to the evolution of styles and themes under the influences of Catholicism and the heroic and erotic literature of France. Earlier works read in translation.

## Eng 430 Literature of the Early Rienaissance (3)

Selections from Tudor and Stuart literature, emphasizing nondramatic poetry and with attention to prose romance, the early povel, and the essay.

VEng 431 Literature of the Later Renaissance (3)
Selections from seventeenth century literature exclusive of Milton, major attention to the metaphysical and Cavalier traditions of poetry, and the essay.

# ENVIRONMENTAL STUDIES PROGRAM 

## (Interdisciplinary)

FACULTY: L. Ismay, R. Nichols, J. Scott:
"ASSOCIATED FACULTY: E. Allen, J. Bulloff, E. Cowley, 'J. Heikoff, R. Kalish, D. McNaught, B. Marsh, E. Renshaw, R. Rienow, R. Stewart.

The program offers a faculty-initiated interdisciplinary major with a concentration in Environmental Studies (B.A. or B.S. Degree). A description of the Interdisciplinary Major is given on page 33. Students are prepared for graduate level environmental study and careers in government, industry and environmental consulting firms. Opportunities are provided for internships and field work in the local community. A multidisciplinary approach to the study of human-environmental relationships is emphasized via special projects, independent study and regular courses on a variety of environmental subjects. Because an integrated approach is stressed, students are advised to take a strong second field or preferably a second major in one of the regular disciplines.

## Degree Requirements for the Interdisciplinary Major with a Concentration in Environmental Studies *

A minimum of 36 credits consisting of Eny 151 or 230 , either Env 150 or 201, plus Env 250 a and b, 350 a and b, plus 18 credits of Env courses as advised, 12 of which must be at the 300 level or above. Certain supportive courses in related departments or schools may apply toward a degree program in special cases. DELETE ENTIRE PROGRAM
 Eny 105 (Geo 105) Environmental Geology (3)

Introduction to and survey of the geologic aspects of the environment, geologic aspects of healtr and disease, waste disposal, mineral resources and conservation, land reclamation, land-use planning, and geologic hazards. Three -leetures each week. Spring session.
Env 150-(RaL 150) Man Against His Environment (3)
An introductory malysis of majormentirenmentalissues, the social and political-forces that generaterand aggravate them, the limits
*No degree will be awarded in this program after Aügust 1978.

Eng 482 American Literature after 1920 (3)


Selections from American literature from 1920 to the present, emphasizing the novel. Major attention to contemporary trends in the redefinition of substance and style in both the novel and poetry.

## Eng 485 Modern American Poetry (3)

Selected poets from Robinson to the present with emphasis on analysis.
Eng 490 Mythic Concepts in Literature (3)
Individual sections may concentrate on a particular mythic confeept which recurs in literature such as the hero, the monster, the ideal society, the fantastic voyage. The student may take the course twice for credit, provided a different mythic concept is studied.

Eng 491 The Mythic Thought of an Era (3)
Individual sections may concentrate on the direction taken by the mythic imagination in a given place and time, such as the Arthurian legend in medieval literature, the Ovidian tradition in the Renaissance. The student may take the course twice for credit, provided the particular subject matter is not repeated.

## Eng 492 Forms of Modern Fiction (3)

A study of the major narrative modes in modern British, American, and Continental fiction. Special attention to the problem of how experimentation in fictional forms relates to the social realities and philosophical attitudes of the contemporary world. The theories and techniques of such writers as James, Chekhov, Joyce, Proust, Mann, Gide, Hesse, Beckett, Faulkner, and Robbe-Grillet,

## Eng 495 Interdisciplinary Seminar (6)

A seminar for qualified juniors and seniors which will deal with relations between the study of English and American literature and a related discipline. Prerequisite: consent of the instructor.

## Eng 496 (Cwl 496) Modern Drama Before 1940 (3)

The growth of Naturalism, Realism, and Expressionism. Selected European and American playwrights from Ibsen to O'Neill.

## Eng 498 (Cwl 498) Modern Drama After 1940 (3)

The conflicting movements and ideas molding world drama in the post-war world. Study of selected plays of Sartre, Brecht, Ionesco, and others.

## Eng 499 Senior Seminar in English (6)

A seminar for qualified seniors; the topic for each session will vary and be announced in advance. The student may take the course twice for credit, provided the particular subject matter is not repeated. Prerequisite: consent of the instructor.

## Env 300 a-and b (Paf 300 a and b) Environmental Writing and Leglslative Research $(3,3)$

Intensive analysis, research, and writing on current environmental topics. First session devoted to learning basics of environmental library research and reporting including investigatory research and-coverage of administrative and court proceedings. Secofd session will focus upon New York State legislature preposalson environmental issues. Writing aimed toward publication in ens vironmental periodicals. Prerequisite: consent of instructor.

## Eny 301 (Chm 301) Chemistry in Society (3)

Designed fo provide the non-science student with an appreciation of chemistry as a human-pursut affithe nature of chemical knowledge and how it is obtained. (Closed to students with credit in Chm 121 b or Chm 131 b .) Three class meetings each weok.

Env 302 (Phy 302) Urban and Environmenial Physics Problems (3)
A physteist's, approach to the collection, evaluation, andi interpretation of data and opinions on selected urban and environmental problems. Topics will include mass tiansportation systems, comparison of various energy sources such as nuclear and fossil fuel, and effectfve utilization of natural resources. Three class periods each week. May be taken either session. This course will be-s/u graded. Prerequisite: Algebra.

## Env 303 Environmental Information (3)

Environmental information and literature, Statistical analysis and written presentation-of-enviremmental drata. Decision models and environmental quality assurance. Preparation of public service, legislative position, or technical papers. Prerequisito consent of the instructor.

## Env 34Q Environmental Law (3)

An overviey of legal problems in environmental management with emphtasis on prixciples of effective resource management in an industrial society. Prerequisite: Env 210.

## Env-330 Introduction to Environmental Antalysis (3)

Elementaxy principles and laboratory techniques forstad detection and analysis of air arrdwater pollution. Sources, $\sin k s$, and distribution of major pollutants and therreseles. in air and water. Introduction to methods of xecyelthg wastes and methodsmof environmental protection, $T$ Fwo lectures and one laboratory each week Prerequisite-Chm 121 a and b, plus Phy 124 and 125.

## Env-350-and-b.Environmental Study Project $(3,3)$

Performance of a year-longmprojectesuded to the student's needs or goals. Pierequisite or corequisite: two sessions of Enw 250 a and b. Fall and Spring sessions.

C-Env 352 (Art 352) The Environment as Art (3)
The understanding of art as environment as well as environment as art; the artist and his relätion=tomectety; a continuing analysis of what is and what couldme. The idea of art made for posterity; the question of reeycling and re-use of art.
and prospects of collective action and alternatives from which we must choose environmental policy. Live lectures plus TV presentations and critique twice a week. Discussion sessions once a week.

## Env 151 Human Environments and Natural Systems-(3)

An introductorr to the study ofmentrs relation to the ecosphere. Three class periods-each week. Several field trips required.

## Env 182 (Eco 182) Economics and Environmental Policy-(3)

The economics of public policies' which aim at environmental control. Emphasis is given to-the concepts of resource scarcity, externalities, and common property, as they affect the role of the publio-sector in environmental control.

## Env 201 Environmental Technics (3)

Soeial,-.envixonmental, economic, and political-goals and consequences of the generation and utilization of science and technology. Environmental andmsoctal technology-for closing the gap between physieat technology and human progress. Threemelass periods each week.

## Env 202 (Bio 202) Ecology (3)

Introduction to the study of organisms, populations, and com-
unities in relation to their environments. The course stresses an munities in rebatian to ath-levels of bielofical organization. Topics considered include: the niche concept, species diversity, nutrient cycling, energy flow, exopulation,_dynantios- and control, biological rhythms, and ofther physiological mechanism influenced by the environment. Prerequisite: Bio 101. Students are encouraged to register for Bio 203 concurrently. Three class periods each week May be taken either session.

## Env-210 Introduction to Environmental Law (3)

An introduction to the common law-ortgins of environmental law and the functioning of the Amexican legal system in the environ-mental-law context. Basic elements of present environmental law will be presented.

## Env 230 (Bio 230) People and Resources in Ecological Perspective (3)

Introduction to ecosystems, soils science,mand the distribution of natural communities. The studyman as a global population and its social implicationsfor resource exploitãtion a historical perspec-tive-onresource-oriented behavior. Does not yield credit toward the major in biological sciences. Three class periods each week.

## Env 250 a and $\mathbf{b}$ Environmental Forum (3, 3)

A study of envixonmental issues which a crowded and industrialized society must face. Leetrares. by specialists in a variety of environmental fields with large and small group discussion. Individual and group projects on environmental problems. Prerequisite: consent of instructor.
see heading "International Study." The use of the foreign language and the exchange of ideas are fostered through language dormitories, language clubs, colloquia, a lecture series, and other department activities.

## Degree Requirements for the Major in French

The major in French offers four concentrations. All students must take a minimum of 35 credits including Fre 230 or Fre 240, Fre 241, Fre 340 a and Fre 306. Students must also take additional courses according to the requirements of their concentration.

## Concentration in Literature:

Fre 361, Fre 362, plus 15 credits in literature, language or civilization, including a minimum of six credits of literature courses numbered above 400 .

## Concentration in Language and Linguistics:

Fre 361, Fre 362, plus 15 credits in literature, language, linguistics or civilization, including-a minimum-of-six-eredits of language courses numbered above 400 .

Concentration in Teacher Education:
Either Fre 361, Fre 362, or 363 (choice of one) 340 b ( 340 b may be replaced by a course in French applied linguistics); Fre 355 a; Lin 206; nine additional credits in literature, language or civilization, including a minimum of six credits of courses numbered above 400.

This program also requires 21 credits in education courses, of which three credits must be in Teaching Methods for Languages (E Flt 401) and nine credits in Student Teaching (E Fre 490).

## Concentration in Civilization:

a. Core courses of 11 credits
b. One of the following: Fre 361 or Fre 362 or Fre 363 for (3)
c. Fre 355 a (3)

Fre 355 b (3)
Fre 405 (3)

## Env-397 Independent Study (1-4)

An independent sturdymourse with variable credit. Contingent upon consent of instructor willing to torpapivise the study. Prerequisite: consent of program director.

## Env 402 Environmental Impact (3)

Environmental impact statements as one form of technology assessment. Intended to prepare studentse to contribute to some portion of an-environmental impact statement. Techniques such as forecasting, systems and införmation theory as aids for govern-s mental planning. Prerequisite: Env 303, Env-3.10, Env 330, or consent-of instructor.

## Env 405 Local Environmental Protection and Coordination (3)

Methods and practices of environmental control, planning, and operations at municipal level. Emphasis is on-work of local environmental conservation_commissions and county environmental management councils, as official-local government agencies. However, course content will-be of interest and benefit-for all citizen con-servationists-and those working in area of environmental affairs. Prerequisite: consent of instructor.

## Env 450 a and b Advanced Environmental Study Project (3, 3)

Performance of a year-long project-leading to a senior thesis on an environmental themermerequisite: Env 350 a and b.
Env 464-(Eco 464) Environmental Econömios.(3)
See Eco 464.

## DEPARTMENT OF- FRENCH

FACULTY: D. Alexander, II; C. Colman; G. Gouraige; R. Greene; D. Levy; M. B. Marvin; F. Moore; C. Odenkirchen; H. Ortali; R. Ortali; J. Richtman; H. Salomon; G. Santoni; J. Savitt.

The objective of the department is to provide students with a broad, general linguistic, literary and cultural background in French and to prepare students for teaching, graduate work, and for a diversity of other fields which require a broad background in French. The department expects its students to become highly proficient in understanding, speaking, reading and writing French.

To accomplish its objectives, the department offers full programs leading to the B.A., M.A., and Ph.D. in French and, in cooperation with the Department of Hispanic and Italian Studies, a Ph.D. in Romance Languages.

## Special Programs or Opportunities

A year abroad program was initiated at the University of Nice in September, 1968. For more detailed information

Fre 120 c Intensive Elementary French (8)
A one term course covering the contents of 120 a and b . Meets 10 hours per week. Additional use of laboratory recommended. Prerequisites: for beginners: none; for students with high school French: placement.

## Fre 130 a and b Intermediate French $(4,3)$

Extensive practice of basic grammatical structures and vocabulary building through directed conversations, readings, and compositions. 130 a meets four hours per week. 130 b meets three hours per week. Prerequisites: for $130 \mathrm{a}: 120 \mathrm{~b}$ or 120 c or placement; for $130 \mathrm{~b}: 130 \mathrm{a}$ or placement.

## $\sqrt{\text { Fre } 130} \mathbf{c}$ Intensive Intermediate French (7)

A one term course covering the contents of 130 a and b . Meets eight hours per week. Additional use of laboratory recommended. Prerequisites: Fre 120 b or 120 c or placement.
Fre 218 French Culture in English (3)
Historical background of modern France. Close analysis of a selected number of national issues, politics, administration, media (T.V., radio and press), education, arts, leisure, etc. This course may not be used to fulfill the requirements of the major in French.
Fre 230 Grammar and Composition (3)
Review of the main grammatical structures and training in idiomatic usage through written exercises and compositions. Not open to students who have completed former Fre 240 a. Prerequisites: Fre 130 b_or Fre_130_c-or-placement.
VFre 240 Reading and Composition (3)
Reading and discussion of modern French texts. Training in idiomatic usage through written exercises and compositions drawn from the readings. Prerequisite: Fre 130 b or Fre 130 c or placement.

## Fre 241 Introduction to Literary Analysis ( 3 )

Presentation of the terminology of literary analysis and various methodological approaches based on selected masterworks of prose


## Fre 250 Conversation (2)

A course stressing oral skills. Training in idiomatic usage through directed discussions based on modern French texts. Prerequisite: Fre 130 b or Fre 130 c or placement.
Fre 306 French Phonetics (2)
Practioal introduction to the phonology of standard French Drill in conversational speech, including French speech sounds and intonation; analysis of sound production; phonetic transcription of spoken French. Extensive use is made of the language laboratory. Prerequisite: Fre 230 or Fre 240.

## $\sqrt{ }$

d. Three (3) additional credits in French in courses numbered at the 400 level
e. Plus six additional credits in the French Department or in other departments (History, Anthropology, etc.) subject to prior approval by the student's French Department advisor
f. Total- 35 credits

## Honors Program

B.A.: Admission to the Honors Program is by letter of application submitted to the chairman of the Department of French by April of the student's sophomore year and subsequent approval of the student's candidacy by the departmental Honors Committee. The program requires: 35 credits above Fre 130 b (or Fre 130 c), including Fre 230 or Fre 240, Fre 241, Fre 361 and 362, Fre 340 a, Fre 306, Fre 387 a and b, Fre 487 and at least three credits in literature courses numbered 400 or above.

## Other Degree Requirements

All-students-(whether-ineoming high-sehool-students-or transfer students) wishing to enter elementary or intermediate language courses must take the placement examination administered by the department. Previous experience of the department has indicated that students with one year high school French will usually be placed in Fre 120 a, or 120 b; two years in Fre 130 a; three years in Fre 130 b; four years in Fre 230 or Fre 240; more than four years in Fre 340 a.

Language majors must take, in their junior year, the proficiency examination in French administered by the French Department.

## Fre 10 a and b French for Reading Knowledge (0)

Grammar, vocabulary; general and special readings. Designed for graduate students preparing for the French reading knowledge examination. Prerequisites: for Fre 10b: Fre 10 a or placement.

Fre 120 a and b Elementary French (4, 4)
French as a spoken and written language. Extensive oral practice of the basic grammatical structures. Meets five times per week. Prerequisites: 120 a: for beginners, none; for students with high school French: placement; 120 b: 120 a or placement.

## Fre 318 Modern French Theater in English (3)

Reading and analysis of representative French dramatists from Jarry to the present, especially Claudel, Giraudoux, Cocteau, Anouilh, Sartre, Ionesco, Becket and Genet. In addition, attention ywill be given to outstanding directors of the 20th century. Course may not be used to fulfill the requirements of the major in French.

## Fre 328 Modern French Novel in English (3)

Representative novelists of major French literary movements of the 20th century. Includes Proust, Gide, Camus, Sartre, Malraux, and Robbe-Grillet. This course may not be used to fulfill the requirements of the major in French.



Study of grammar idioms and vocabulexey emphasizing complex
 5) 18 Fre 230 or Fre 240 or placement for $340^{-1}$ :-Fre- 840 - 40 - placen ment.
Eres atob A duauced Composition' (3) See deocupit tprer. Fre 350 Advanced Conversation (2)

Directed and free discussions based in part on current French publications. Meets three times a week, including one period of supervised laboratory work designed to improve aural comprehension. Prerequisite: Fre 250 or placement.

## Fre 353 a Masterpieces of French Literature (3)

Reading and analysis of selected masterpieces of French literature from the Middle Ages to the 17th century. Readings in French; classes, papers and examinations in English. Course may not be used to fulfill the requirements of the major in French. Prerequisite: /reading knowledge of French.

## Fre 353 b Masterpieces of French Literature (3)

Reading and analysis of selected masterpieces of French literature from the 18th to the 20th century. Readings in French; classes, papers and examinations in English. Course may not be used to fulfill the requirements of the major in French. Prerequisite: reading knowledge of French.

## Fre 355 a Contemporary French Sociely and Culture (3)

A close analysis of the family structures, the educational system, the social classes and the political, economic and cultural institutions of modern France. Prerequisite: Fre 240.

## Fre 355 b Development of French Society and Civillization (3)

An overview of the dominant social, political, economic, and qultural themes as expressed in French society from the medieval period to the present. Prerequisite: Fre 240, Fre 355 a highly fecommended.

## Fre 361 Survey of French Literature: Middle Ages and 16th Century (3)

Presentation of the main literary currents from the epic to the end of Renaissance Humanism. Reading and discussion of selected texts. Prerequisite: Fre 241.

Fre 362 Survey of French Literature: 17th and 18th Century (3)
Presentation of the main literary currents from Malherbe's time to Pre-Romanticism. Reading and discussion of selected texts. Prerequisite: Fre 241.
Fre 363 Survey of French Literature: 19th and 20th Century (3)
Presentation of the main literary currents from Romanticism to the present. Reading and discussion of selected texts. Prerequisite: Fre 241.

## Fre 365 Contemporary French Press (3)

A close examination of the press, through the analysis and discussion of newspapers, magazines and their ideologies. Prerequisite: Fre 230 or Fre 240.
Fre 387 a Junior Honors in French (4)
Study of selected major works in French literature in their entirety and with relation to the background of their authors and periods. Training in techniques of literary analysis, criticism, and research by discussion, instruction in bibliographical methods, and the writing of regular short papers. Restricted to junior French majors who have been admitted to the honors program. First gession. Prerequisites: Fre 361 and Fre 362.

## Fre 387 b Junior Honors in French (4)

Reading program in areas of French literature. Preparation of project for individual study. Limited to members of the French honors program. Grade of C or better is required for the prerequisite unless waived_by the_chairman_of the-department.-Secondsession. Prerequisite: Fre 387 a.

## Fremandural

Fre 397 Independent Study in French (1-4)
Study by a student in an area of special interest not treated in courses currently offered. Work performed under direction of a professor chosen by the student on a topic approved by the department. May be repeated once with approval. Prerequisite: Fre 361, Fre 362, or Fre 363.

Fre 405 Civilization Research (3)
Different aspects of French culture of the seventies: French society; politics, economy; education, religion; mass media; the arts. Prerequisites: Fre 355 a and-Fre 355-b.
Fre 406 French Linguistics: Morphology and Syntax (3)
Survey of the structure of the French language in the light of the current linguistic theory. Emphasis will be on the fields of morphology and syntax. Prerequisite: Lin 206, or consent of ingtypator. Fre 415 French Cunua vSoceltg(s)
$\sqrt{ }$ Fre 431 Medieval 16th and 17th Century Poetry (3)


Main currents with emphasis on "poètes courtois," Villon, Marot, Ronsard, Malherbe, and La Fontaine. Prerequisite: Fre 361, Fre 362, or Fre 363.

Fire 440 Advanced Language Analysis (3)
Syntactical analysis and intensive writing of French. Prerequisite: Fire 340 a, Fere 340 b or placement.

Fire 441 Renaissance and Humanism (3)
Intellectual, religious, and literary expression of the French Renaissance with emphasis on Rabelais, Ronsard, and Montaigne. Prerequisite: Ere 361, Fere 362, or Fre 363.
Fre-450 a French speech styles (3) $0<$ delete 12177
Introduction to variant styles of spoken French, -with emphasis on aural comprehension. Includes colloquial, standard, and format speech; sociolinguistic and regional variations; oral literature; popular songs. Intensive laboratory practice. Recommended for fature_teachers and Nice-bound_students Prerequisite: Fre_306mor on sent of instrieter.
Here 450 程 French Speech Styles (3)

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Training in conversational mastery of spoken French with emphasis on various speech styles: soigné, familier, populaire. Close attention is paid to the grammatical and lexical analysis of these (styles, their cultural implications and social contexts. Prerequisite: Fire 350, participation in Nice program, or placement.

Fire 451 French Classicism (3)
Preclassicism and baroque. The main features of French classicorm. Analysis of representative works, with emphasis on Pascal, Corneille, Racine, Moliere, and Boileau. Prerequisite: Fere 361, Fra 362, or Fire 363.

## re-452-17th-and-18th-Century-Novel-(3)

Representative works illustrating the development of the novel as a genre: Mme. de Lafayette, Abbé Prévost, Marivaux, Voltaire, and Laclos. Prerequisite: Fire 361, Fire 362, or Fre 363.

Ere 453 17th, 18th and 19th Century Theater (3)
Representative works of Corneille, Racine, Molière, Marivaux, Beaumarchais, Hugo and Becque. Prerequisite: Fre 361, Fire 362, or Fra 363.

## Fire 461 The Age of Enlightenment (3)

Philosophy and "sensibilite" in the works of Montesquieu, Voltare, Diderot, and Rousseau. Prerequisite: Fire 361, Ere 362, or Fere 363.
$\sqrt{ }$ Fire 471 French Romanticism (3)
Literary and philosophical background of French romanticism; romanticism in French poetry; drama, and other literary types. Prerequisite: Fre 361, Fere 362, or Fre 363.

Fire 472 19th Century Novel (3)
Representative works illustrate the major trends of the French novel from Romanticism to Naturalism. Emphasis on Hugo, Balzac, Stendhal, Flaubert, and Zola. Prerequisite: Fre 361, Fre 362, or Fire 363.

Main poetic currents from Romanticism to modern times.
Prerequisite: Fre 361, Fre 362, or Fre 363.
$\sqrt{ }$ Fre 481 20th Century Novel (3)
The social novel; exploration of the unconscious in Proust; religious problems and conflicts in Gide, Bernanos, and Mauriac; roman-fleuve; Sartre and existentialism; Camus and the absurd; Malraux. Prerequisite: Fre 361, Fre 362, or Fre 363.
Fre 482 20th Century Theater (3)
Symbolist influence in 20th Century theater; revival of classical themes; existentialist drama. Prerequisite: Fre 361, Fre 362, or Fre 363.
Fre 483 Le Nouveau Thêâtre (3)
Reaction to the classical tradition in contemporary French theater; the "theater of the absurd" from its earliest manifestations to the present. Prerequisite: Fre 361, Fre 362, or Fre 363.
$V_{\text {Fre }} 487$ Senior Honors in French (4)
Writing of the Senior Honors Thesis under direction of a member of the French faculty. Limited to members of the French honors program. Grade of C or better is required for the prerequisite unless waived by the chairman of the department. Either session. Prerequisite: Fre 387 b.
Fre 490 Seminar on the Problems of Teaching Secondary School French (1)
Quarter course designed to bring to prospective high school teachers assistance in teaching French more effectively; up-to-date information about French culture, presentation of difficult points of French grammar, sources for supplementary teaching material, etc. A seminar where recent graduates as well as seasoned high school teachers participate on a regualr basis in order to discuss their teaching experiences. Open to students during their professional ferm or consent of instructor.

## Fre 491 Littérature d'Expression Française (3)

General view of literature written in French by African, Canadian, Caribbean, and European authors. Emphasis will vary between African-Caribbean, Canadian or European. Course may be repeated twice with different subject emphasis. Prerequisite: Fre 361, Fre 362, or Fre 363.
Fere $499^{-\quad}$ Undèrgraduāte Seminar (3)
Intensive study of an author, topic or literary theme not treated in regularly offered departmental undergraduate courses. May be repeated. Prerequisite: Fre 361, Fre 362, or Fre 363.

## DEPARTMENT OF GEOGRAPHY

FACULTY: S. Blount, M. Dobson, H. Flierl, W. Heiser, F. Henderson, P. Marr, J. Pipkin.

The Department of Geography offers programs leading to the B.A. and M.A. degrees. The undergraduate program provides students with a broad, general background in the field of geography as preparation for work at the graduate level. Students are also able to equip themselves with various techniques and methods that are useful as training for employment in a variety of business and government occupations,_particularly_in the_fields_of_planning, cartography, and resource and environmental management. Geography also provides a useful background for study in professional schools of public administration, planning, education, forestry, and various environmental programs.

## Degree Requirements for the Major in Geography

## General Program

B.A.: Gog 101, 102, 290, 396, a minimum of 15 credits in systematic and regional courses in Geography, including at least nine credits at the 300 level; up to nine credits in supporting courses from the social sciences, the earth and atmospheric sciences and biology as advised to total 36 credits.

## Gog 101 Introductory Physical Geography (3)

The major world climate, vegetation, soil, and landform regions and other physical patterns, and their interrelationships, causes and significance. The use of maps and other devices as interpretive tools

## Gog 102 Introduciory Cultural Geography (3)

Study of human patterns of earth occupance reflecting man's influence on the physical, social, political, and economic environment and his response to these environmental factors with an emphasis on their interrelationships.

## Gog 150 World Peoples and Regions (3)

A survey of the major political and cultural areas of the world, emphasizing regional patterns of landscapes, settlement, economy, and intercultural contacts. (Not open to majors.)

## Gog 201 Introductory Geomorphology (3)

Origin and development of landforms produced by water, wind, waves and ice action with man as an active or a passive agent in the gradation processes of his physical environment. Prerequisite: Gog 101.


An analysis of man's role in the production, utilization, and exchange of the products of agriculture, forestry, fishing, mining, and manufacturing; of world patterns of trade and transportation; of the concepts of location theory as they are influenced by the economic, cultural, political and physical conditions that prevail on different parts of the earth. Prerequisite: Gog 101 or Gog 102 or Eco 100.

Gog 220 Introductory Urban Geography (3)
Analysis of the distribution, size, function, and morphology of the city, emphasizing the study of the American city. Prerequisite: (Gog 101 or Gog 102 or consent of instructor.

## Gog 290 Introductory Cartography (4)

Techniques applicable to data compilation, design and construetimon of maps. Cartographic expression as a basic tool for analysis end presentation of spatial phenomena and statistical surfaces.
Prerequisite: Gog 101 or Gog 102.

## Gog 291 Map Interpretation (3)

Survey of types and uses of maps. Topics include map elements, projections, landform analysis and cultural patterns. Prerequisite: Gog 101.

## Gog_293 Map and Photo Interpretation of Landforms -(3)

Recognition and interpretation of landforms from air photos and contour maps, basiomensuration techniques.-Prexequisite:-Geg-201
or-consent" 6 instructor.

Examination of the major landform subdivisions in the United States and their development. Prerequisite: Gog 201 or consent of jhistructor.
$\sqrt{\text { Gog } 302 \text { Landform Studies (3) }}$
Map and air photographic techniques of landform inventory and classification by means of natural grouping, morphometric analysis and watershed evaluation. Prerequisite: Gog 201 or consent of instructor.

## Gag 310 Geography of Primary Production (3)

- An analysis of -world-patterns in the production, utilization, and exchange of agricultural, forest, marine and mineral products. Involves the analysis of spatial variations in the impact of physical, cultural, economic, and political conditions on the development of the primary industries. Prerequisite: Gog 101 or Gog 102 or Eco 100.

Gog 313 Geography of Manufacturing and Service Industries (3)
The study of the major manufacturing and service industries of the world. Analysis of the regional patterns of manufacturing and principles of industrial location are stressed. Prerequisite: Gog 10] or Gog 102 or Eco 100.

Gog 314 Geography of Transportation and Trade (3)
Analysis of geographic aspects of transportation and trade. Includes the study of the bases of transportation and trade, the regional patterns of transportation facilities, and commodity flows and traffic patterns. Prerequisite: Gog 101 or Gog 102 or Eco 100.

## Gog 320 (Soc 372) Urban Planning (3)

The development of city planning, its function in urban government, basic studies for urban planning, land use zoning, the master plan, and implementation of planning programs. Prerequisite: Gog 220 or consent of instructor.

## Gog 330 Geography of Population and Settlement (3)

An analysis of demographic variations with emphasis on the economic-and-social-characteristics of the population and population mobility. Problems of underdevelopment and population pressures on resources. Prerequisite: Gog 101 or Gog 102 or consent of instructor.

## Gog 335 Introduction to Behavioral Geography (3)

Survey of space-perception and spatial aspects of decision-making, with discussion of: the perception of natural hazards, mental maps, and cognitive images of the city; spatial aspects of information acquisition; learning and preference-information; learning and choice processes in urban travel and migration. Questionnaire-based reSearch techniques are introduced. Prerequisite: Gog 102 or consent of instructor.

Gog 356 Geography of the United States (3)
A systomatic treatment of the physical, economic, and cultural geography of the United States; selected regional problems of land futilization and of geographic adjustments. Prerequisite: Gog 101 or Gog 102.

## Gog 359 Geography of Middle America (3)

A critical analysis of physical and cultural environment and an evaluation of resources basic to economic and political development. Prerequisite: Gog 101 or Gog 102.

## Gog 362 Geography of South America (3)

The basic human and physical differences among regions of South America which affect economic, social, and political conditions; geographic factors in the development of South American countries. Prerequisite: Gog 101 or Gog 102 or consent of instructor.

## Gog 365 Geography of Western Europe (3)

A regional and topical geography of non-Communist Europe. Includes an analysis of the varied physical and human factors behind Western Europe's diversity; economic and political regions and the development of supranational blocs and institutions. Prerequisite: Gog 101 or Gog 102 or consent of instructor.

## Gog 368 Geography of Eastern Europe (3)

A regional and topical geography of the Communist countries of Eastern Europe (not including the Soviet Union). Includes an analysis of the varied physical and cultural factors behind Eastern

Europe's diversity; economic regions; and the development of agricultural and industrial activities since World War II. Prerequisite:
Gog 101 or Gog 102 or consent of instructor.
Gog 371 Geography of the Soviet Union (3)
A study of the physical and cultural patterns of the Soviet Union with reference to the significance of industrial and agricultural expansion in relation to the environmental resources available. Emphasis on internal diversity of cultures and capabilities and the planned attempts to overcome these differences and to reduce spatial separation. Prerequisite: Gog 101 or Gog 102 or consent of instructor.

## Gog 374 Geography of the Middle East (3)

The physical, cultural, and resource geography of south-western Asia and northern Africa. Prerequisite: Gog 101 or Gog 102 or oonsent of instructor.

## Gog 377 Geography of Sub-Saharan Africa (3)

The physical, economic, and cultural settings in Africa south of the Sahara which form the basis for various forms of livelihood; analysis of regions and political units. Prerequisite: Gog 101 or Gog 102 or consent of instructor.

## Gog 380 Geography of East Asia (3)

The lands, peoples, and countries of eastern Asia including China, Korea, and Japan. Geographical foundations of economic activities and population_problems. Prerequisite: Gog_101 or Gog 102 .

Gog 383 Geography of South and Southeast Asia (3)
The lands, peoples, and countries of south and southeast Asia including the Himalayan countries, those of the Indian subcontinent, and of peninsular and insular southeast Asia. Geographical foundations of economic activities and cultural developments. Prerequisite: Gog 101 or Gog 102.

## Gog 385 Introduction to Remote Sensing of Environment (4)

Analysis of multispectral reconnaissance techniques and instruments used to study the environment. Emphasis on principles of multispectral photography, color and color infrared photography, thermal infrared and multifrequency radar systems and their application in the investigation of cultural and biophysical phenomena. Two lectures and two hours of laboratory work per week.

## Gog 390 Intermediate Cartography (3)

Techniques of reproduction graphics with emphasis on map planning and construction. Utilization of half-tone, color-key and other production processes as modes of cartographic expression.
Prerequisite: Gog 290.

## Gog 394 (Mat 394) Mathematical Techniques in Urban and Regional Analysis I (3)

Elementary mathematical applications in demographic theory, regional economic growth models, gravity models and transportation systems. No formal mathematical training necessary.

## Gog 395 (Mat 395) Mathematical Techniques in Urban and

 Regional Analysis II (3)Linear programming applications in planning. Overview of urban planning processes-land use and transportation models including derivation and parameter estimation. Prerequisites: Elementary statistics, Gog 394, or consent of instructor.

## Gog 396 Quantitative Methods in Geography (3)

Quantitative methods used by geographers, including sampling analyses, input-output analyses and conceptual models as these relate to investigation of data of areal distributions. Prerequisite: Gog 101 or Gog 102; Mat 108 recommended.

## Gog ${ }^{397}$ Independent Investigations in Geography (1-6)

Reserved for highly qualified students who wish to conduct independent research in topical and regional geography. The student, subject to faculty approval, will select a research problem; the number of credits will be based on the scope and difficulty of the research proposal. The student will work independently under some degree of guidance from a member of the faculty. The student will submit a finished report at the end of the session. Prerequisite: none. Can be repeated for credit to total of six credits.

## Gog 401 Techniques in Geomorphology (3)

Techniques used by contemporary geomorphologists are reviewed with special field and laboratory emphasis placed on identification, composition, genesis of unconsolidated surface materials and essential aspects of hydrology. Prerequisite: Gog 201, Geo 210 or consent of instructor.

## Gog-414-Computer-Map Analysis (3)

Computerized methods for displaying and analyzing spatial data. Printer and plotter mapping. Interpolation methods, power series and Fourier trend analysis, spatial filtering. Geographic base files. Introduction to pattern analysis. Prerequisite: Gog 290 , Gog 396, or consent of instructor.

## Gog 416 Urban and Regional Planning Laboratory (3)

Preparation of comprehensive plan elements, zoning ordinances and subdivision regulations-study, formulation, field research, report preparation and formal presentation before professional planners or government administrators. Prerequisite: Gog 220 or Gog 320 or consent of instructor.

## Gog 417 Geography Internships (3-6)

Work in planning, cartography, remote sensing, environmental or other offices to gain pre-professional experience in applied geography. Carried out under the joint supervision of faculty and the host office. Prerequisites: advanced standing and consent of instructor.
Gog 418 Directed Study in Topical Geography (3)
Advanced study in topical geography specialization under the direction of the geography staff. (May be repeated for credit.) Prerequisite: nine credits in geography.

Gog 420 Urban Field Studies (3)
Application of field techniques in the study of urbanized regions. Pierequisite: consent of instructor.

## Gog 422 Intermediate Urban Geography (3)

Analysis of recent literature on urban location, external spatial relations of cities, internal differentiation of land uses, and the spatial patterns of urban population and activities. Prerequisite: Gog 220 or consent of instructor.
Gog 425 Rural Field Studies (3)
Application of field techniques in the study of rural regions. Prerequisite: consent of instructor.
Gog 450 Directed Study in Regional Geography (3)
Advanced study of world regions and areas under the direction of the geography staff. (May be repeated for credit.) Prerequisite: njúe credits in geography.
Gog 455 Seminar in the Geography of a Selected Region (3)
Specific application of the regional concept to a selected area, embodying geographic analysis and synthesis of critical interdependent elements of the region. (May be foreign or domestic.) Knowledge of a language of the region is essential. Prerequisite: nine crédits in geography and consent of instructor.
VGog 457 Geography of New York State (3)
The resource base of New York State's geography; landforms, climate, water, vegetation, and soils. The historical geography of New York from Indian times to the present. Geography-of-eeonomie activities today; the primary, secondary and tertiary sectors. Urban and rural landscapes, planning and development regions. The development, industrial status, and economic potential of the State's major urban system. Prerequisite: Gog 101 or Gog 102 or consent of instructor.

## Gog 460 Historical Geography of the United States (3)

A study of the human geography of the American past. Charactexistios of the early settlement patterns along the Atlantic Coast, the westward movements through the Appalachians, the spread of population, and the development of the Far West. Interpretation of the regional changes in human land use patterns. Prerequisite: Gog 101 or Gog 102 or consent of instructor.
"Gog 466 Geography of Germany (3)
The physical,- economic and cultural-characteristics of Germany that contribute to its regional diversity and problems. The course covers both the Federal Republic and the German Democratic Republic, with some attention to areas formerly German. Prerequisite: Ggy 101 or Gog 102 or consent of instructor.
Gog 485 Intermediate Remote Sensing of the Environment (3)
Current research in geographic remote sensing of the environment with emphasis on past, present, and future applications in geography and related disciplines. Practice in planning, design, execution, and interpretation of overflights with various types of remote sensing systems. Prerequisite: Gog 285.

Gog 490 Concepts in Modern Geography (3)
Analysis of geography's role in interpreting modern world societies; especially designed for those students interested in teaching at the secondary level. Prerequisite: six credits in geography or consent of instructor.

## Gog 495 Undergraduate Seminar in Cartography (3)

Study of a particular topic of importance in cartography, such as generalization, perception, research, automation, landform representation, production mapping, etc. Prerequisites: Gog 290, Gog 390, and consent of instructor.

## Gog 498 Pro-Seminar in Methodology and Theory for

 Undergraduates (3)Study of geographic concepts, methods and procedures. Discussion of professional geographic materials and basic bibliographic procedures. Prerequisite: 15 credits in geography.

## DEPARTMENT OF GEOLOGICAL SCIENCES

FACULTY: P. Benedict, K. Burke, S. DeLong, J. Dewey, P. Fox, W. Kidd, W. Means, A. Miyashiro, P. Pomeroy,

G. Putman, F. Shido

The department aims to provide a broad introduction to the geological sciences including geophysics and geochemistry. Within the last decade, understanding of the earth has been revolutionized through the development-of plate tectonic theory. Members of our faculty have played leading roles in this revolution and teach courses aimed both at introducing students with varied backgrounds to a new dynamic picture of the world and at training future professionals. Continuing shortages of raw materials for industry and energy production and increasing interest in environmental problems are leading to a growing demand for professional geologists.

## Special Programs or Opportunities:

The department sponsors two weekly seminar series that provide students with a sampling of important topics in current geological research: (1) informal talks given by faculty and graduate students; and (2) formal seminars presented by outside speakers. The Geology Club and department sponsor field trips in New York, New England, and the Appalachians. The field mapping course attracts students from other schools.

## Special Programs or Opportunities:

The department provides for graduate and undergraduate students both research and small group laboratories, a colloquia series with both locally and nationally known sociologists, and a local chapter of the national sociology honorary, Alpha Kappa Delta.

## Degree Requirements for the Major in Sociology

## General Program

B.A.: A minimum of 36 credits including Soc 115,221 , 223 , and either $330,333,335$, or $430 ; 18$ additional credits of sociology as advised; six credits of supporting courses as advised. A minimum of 12 credits in sociology must be at the 300 level or above. Mat 108 or 362 may be substituted for Soc 221.

## Soc 115 Introduction to Sociology (3)

The nature of culture and of human society, personality development, groups and group structure, social institutions, the processes of social change. (Seniors should take Soc 417 instead of Soc 115.)

## Soc 180 Social Problems (3)

The application of the concepts, methods and ethics of sociology o the_analysis_of"social_problems." Prerequisite:_Soc_115.
$\checkmark$ Soc 221 (Soc 215) Statistics for Sociologists (3)
An introduction to quantitative analysis of sociological data: Methods of summarizing and describing univariate distributions including the use of tables and graphs; methods of examining relationships between two or more measures; statistical inference and hypothesis testing. Prerequisite: major in department.

Soc 223 (Ant 280) (Soc 220) Introduction to Social Research (3)
An examination of the assumptions and techniques of social research: problems of design, data collection, quantitative and qualitative analysis; review of current research in professional journals; the uses of survey research; application of concepts through individual and class projects. Prerequisite: Soc 115 and Mat 108 or Mat 362, or Soc 221 is required.

Soc 240 Social Instifutions (3)
An introduction to the internal organization and operation of yarious social institutions (religious, political, economic), and the influence of one institution upon another. Prerequisite: Soc 115.

Soc 241 Social Class (3)
An examination of the antecedents, consequences, and measures of social class including the principal theoretical and empirical literature on social stratification. Prerequisite: Soc 115.


The family as a social institution, types of family organization, the family as a socializing agency and its interrelations with other institutions, the impact of social change on the American family with particular reference to the transition from a rural-agricultural Vo a predominantly urban-industrial society. Prerequisite: Soc 11.5.

## Soc 255 (Soc 355) Mass Media (3)

The role of the newspaper, radio, television and motion pictures in American society; changes in these media and their functional relationship to education, the economy, the political process, and public opinion. Prerequisite: Soc 115.

Soc 260 (Pay 270) (Soc 270) Social Psychology (3)
The relation between the individual and the group, the influence of culture and of institutions on human personality, the nature and types of leadership, factors in the development of social attitudes, the psychology of mass movements and of social decisions.
Prerequisite: Soc 115 or Pay 101.

## Soc 270 (Soc 358) The Community (3)

The nature of the community and approaches to community study. The impact of urbanization and other changes on the physical and social structure of communities; community planning. Prerequisite: Soc 115.
Soc 281 Criminology (3)
An introduction to thee studly of the crimimalmandohigmeatment, and of the nature andertiology of crime Analysis of the policies and phethrods-of the police, the try, and the courts; the correctional yo-fem's-rble in the prevention of crime and the rehabilitation of criminals -Prerequisite: Soc 115. Amstudymof vaxious-racial, ethnic and religious groups mifamerta gan society with particular attention to the American Negro. The processes of conflict, accommodation, and assimilation; problems arising from increasing mobility and current efforts to modify mratUitional patterns of -segregation Prerequisite: Soc 115.

## Soc 289 (Soc 283) (Prs 289) Special Topics in Ethnicity (3)

An intensive examination of the culture and lifestyle of a single ethnic group within American society. The specific ethnic group to be studied will vary from session-to-session-and-will-be-indicated by course subtitle; e.g., Ethnicity: Italian Americans. Repeatable for up to six credits under different subtitles. Departmental vermission required for more than six credits. Prerequisite: Soc 115.

## Soc 300 (E Soc 300) Introduction to the Sociology of

 Education (3)An introduction to the sociology of education. An emphasis on the impact of institutions and various educational problems.

A review of the theories of the nature of society preceding the foundation of sociology as a special discipline. The material includes selected works of Chinese and Greek philosophers and historians; Church theologians; Renaissance humanists; British, French, Scotfish, and Italian reformers, critics, political and economic writers. Prerequisite: Soc 115.
Soc 333 (Soc 332 b) History of Social Thought-19th Century (3)
The diverse theories that have shaped modern sociology are reviewed. Attention is given to evolutionary, conflict, reform, organic, analytic, and utopian orientations of the period. Prerequisite: Soc 115.

Soc 335 Contemporary Sociological Theory (3)
An overview of the major systems of schools of theory influencing twentieth-century sociology. Evaluation of the role of theory in the growth of the discipline. Special emphasis on the influencing of modern theorists beginning with Durkheim. Prerequisite: nine credits in sociology or consent of instructor.

Soc 342 Complex Organizations (3)
A comparative sociological analysis of the structures and processes characterizing different types of large organizations (e.g., school, prison, hospital); alternatives to the bureaucratic model; inter and intra-organizational relations, and organizational change.
Prerequisite: Soc 115.

## Soc 346 (Soc 415) Social Organization (3)

An-intensive,-analytic-coverage-of-basie-sociolegieal-coneepts-relating to societal organization. Prerequisite: Soc 115.

## Soc 352 (Soc 449) Sociology of Religion (3)

Religion in society: the social sources of religion; religious institutions in America; the relation between religion and the social, economic, and political forces in society. Prerequisite: Soc 115.

## Soc 353 (Soc 252) Sociology of Economic Behavior (3)

A sociological analysis of economic institutions, using crosscultural, historical, and contemporary data; the inter-relations of economic behavior and other institutionalized behavior; special problems arising from change in economic systems in modern societies. Prerequisite: Soc 115.

## Soc 354 (Soc 456) Political Sociology (3)

An analysis of the social bases of political power and the origin, course of development, and duration of social movements; the role of propaganda, communication, and public opinion in political behavior; the structure of political organizations. Prerequisite: Soc 115.

## Soc 356 (Soc 354) Sociology of the Arts (3)

The social organization of art activity; the roles of artists, patrons, critics, and the various publics; art as communication and as an indicator of social change; the uses of art in religion, government, and business. Prerequisite: Soc 115.


Analysis of industrialization; institutional and interpersonal aspeets of the industrial work place. Prerequisite: Soc 115.
Soc 359 Medical Sociology (3)
A comprehensive introduction to sociological factors in disease etiology and illness behavior and to the sociology of the organization of medical practice and the health professions. Prerequisite: Soc 115.
'Soc 360 (Soc 460) Processes of Socialization (3)
Exploration of socialization processes with similarities and differences in occurrence in various social institutions; aspects of socialization in the life cycle of the individual. Prerequisite: Soc 115, Spc 260 or equivalent.

Soc 363 (Soc 462) Small Groups (3)
An introduction to small group theory and research. Analysis of interaction processes and group structures through laboratory observation and experimentation. Prerequisite: Soc 115, Soc 223, and Soc 260.
$\checkmark$ Soc 365 Collective Behavior (3)
A sociological analysis of forms of collective action, including panics, crazes, fads, fashions, demonstrations, publics, movements; theory of collective behavior as social action. Prerequisite: Soc 115 and an additional three credits of sociology or psychology.
soc 370 -Social Demography (3)
The analysis of population processes with special emphasis on the effects of population on social organization and change. Prerequisite: Soc 115.

Soc 371 Urban Economics (3)
Same as Economics 341.

## Soc 372 Urban Planning (3)

Same as Geography 320.

## Soc 379 (Prs 329) The Urban Puerio Rican Family

Same as Prs 329.

## Soc 380 (Prs 380) Sociology of Poveriy (3)

Analysis of structural conditions leading to the formation and maintenance of low-income populations: interplay between economic, demographic, and cultural factors; poverty and social policy. Prerequisite: Soc 115.

The characteristics and distribution of delinquency in society; a $/ / 2 \nmid 7$ cuttical review of etiological theory and an analysis and critique of gorrectional processes. Prerequisite; Soc 115.

Soc 384 (Soc 390) Sociology of Aging (3)
Aging as a cultural phenomenon; a comparative study of age structure in society; the nature of age strata; relationships of age
strata; the consequence of social change for age definition. Prerequisite: Soc 115.
Soc 417 American Social Institutions (3)
Analysis of the structure and function of contemporary American social institutions, with emphasis on the problems created by a rapidly changing social order. (Restricted to non-sociology majors.)
Soc 429 Special Topics in Social Research (3)
An intensive examination of a specialized topic in the area of social research. The special topic to be studied will vary from term to term and will be indicated by course subtitle. Course repeatable for up to nine credits under different subtitles. Departmental perthission required for more than nine credits. Prerequisite: six credits in sociology and consent of instructor.

## Soc 430 (Soc 410) Origins of Sociology (3)

The beginnings of sociology as a distinct discipline in Europe and in the United States. The emergence of sociology from a background of social philosophy and social reform. Prerequisite: nine credits in sociology or consent of instructor.

## Soc 439 Special Topics in Sociological Theory (3)

An intensive examination of a specialized topic in the area of sociological theory. The special topic to be studied will vary from term to term and will be indicated by course subtitle. Course repeatable for up to nine credits under different subtitles. Departmental permission required for more than nine credits. Prerequisite: six credits in sociology and consent of instructor.

Soc-440-(Soc-452)-Social-Control-(3)
The factors involved in the maintenance of the social order and the making of group decisions. The nature of custom, ideology, leadership, public opinion, and the other types of control.
Prerequisite: Soc 115.

## Soc 443 (Soc 459) Social and Cultural Change (3)

The nature, sources and interrelationship of social and cultural changes; theories of change; analysis of factors making for equilibrium and disequilibrium in human societies. Prerequisite: Soc 115.

## Soc 445 Comparative Sociology (3)

A comparison of societies and sub-cultures utilizing the historical and cross-cultural approaches. Prerequisite: six credits of sociology.

## Sge 446 (Ant 464) (Soc 464) $\begin{aligned} & \text { Eastern Europe: Tradition and } \\ & \text { Change, (3) }\end{aligned}$

Cultural background, world view, and social structure of selected Edstern European countrieq cultural persistence and change under the impact of economic and 管olitical transformations. Prerequisite: Sba 115 or Ant 200. Eadern European teturic $G r o u p s$. - Soc 447 (Soc 465) South-East Europe: Conifict of Cultures (3)

A comparative analysis of civilizations which flourished in SouthEast Europe from antiquity to the present, illustrated by the history of conflict and interpretation between them. Prerequisite: consent of instructor.

Changing class structure, ethnic composition and culture of contemporary Latin American nations. Prerequisite: reading knowledge of Spanish or Portuguese and consent of instructor.

## Soc 449 Special Topics in Social Organization and Change (3)

An intensive examination of a specialized topic in the area of social organization and change. The special topic to be studied will vary from term to term and will be indicated by course subtitle. Course repeatable for up to nine credits under different subtitles. Departmental permission required for more than nine credits. Pyerequisite: six credits in sociology and consent of instructor.

## Soc 451 Sociology of Law (3)

A sociological analysis of the emergence, implementation, and social impact of legal codes and the organization of the legal systen. Prerequisite: Soc 115.

## Soc 457 Sociology of Science (3)

Characteristics of scientific belief systems; social background of the development of science; the social organization of scientific activity; the impact of science on society. Prerequisite: consent of instructor.
Soc 459 Special Topics in Social Institutions (3)
An intensive examination of a specialized topic in the area of social-institutions. The-special-topies-to-be-studied-will-vary-from term to term and will be indicated by course subtitle. Course repeatable for up to nine credits under different subtitles. Departmental permission required for more than nine credits. Prerequisite: six fredits in sociology and consent of instructor.

## Soc 460 (Soc 412) Human Communication (3)

The communication process, how communication generates social and psychological effects; the role of communications in social interaction, both directly and through mass media. Emphasizes information theory, social exchange, nonverbal communication, persuasion, control and variations of the source, message, channel, and sociopsy/fological state of the receiver. Prerequisite: Soc 115 or Psy 101.
\$oc 469 Special Topics in Social Psychology (3)
An intensive examination of a_specialized topic_in_the_area_of social psychology. The special topic to be studied will vary from term to term and will be indicated by course subtitle. Course repeatable for up to nine credits under different subtitles. Departmental permission required for more than nine credits. Prerequisite: six credits in sociology and consent of instructor.
$j$
Soc 470 (Soc 436) Urban Sociology (3)
Approaches to the study of urban form and process: The city as a crescive product and as a social artifact; impact of the urban setting upon social institutions; city, metropolis, and megalopolis; the future of cities. Prerequisite: Soc 115.

## Soc 472 Urban Ecology (3)

A study of the adaptation of human social systems to environmental conditions, with a focus on the urban ecological system. Prerequisite: Soc 115 or Soc 417.

## Soc 479 Special Topics in Urban Sociology (3)

An intensive examination of a specialized topic in the area of urban sociology. The special topic to be studied will vary from term to term and will be indicated by course subtitle. Course repeatable for up to nine credits under different subtitles. Departmental permission required for more than nine credits. Prerequisite: six credits in sociology and consent of instructor. New deocrio
Soc 480 (Soc-461) Sociology of Deviant Behavior (3)- $4 / 76-$
Exploration-of-various aspects of deviance: aberrant ys nononformists; relationships between devianqe àng-various \%ocial/instifutions; etiology phd maintenance of deviant oehzvior deviant behavior within the community prerequisite:-

## Soc 489 Special Topics in Social Disorganization and Deviance (3)

An intensive examination of a specialized topic in the area of social disorganization and deviance. The special topic to be studied will vary from term to term and will be indicated by course subtitle. Course repeatable for up to nine credits under different subtitles. Departmental permission required for more than nine credits. Prerequisite: six credits in sociology and consent of instructor.

Soc 497 a and b Independent Study in Sociology (3, 3)
Independent reading or research on a selected experimental, theoretical, or applied problem, under the direction of a faculty member. May be taken a second time for an additional three credits upon recommendation of the faculty supervisor and with approval of the department chairman. Prerequisites: major in Sociology, consent of department chairman and instructor.

Soc 499 a and b Senior Seminar in Sociology (3, 3)
Selection of topic and preparation of a paper under the direction of a faculty member. Prerequisite: senior standing, a major in Sociology, and consent of department chairman.

## DEPARTMENT OF THEATRE

faculty: J. Burian, R. Donnelly, E. Golden, J. Hanley, R. Herzel, J. Leonard, E. Mendus, L. Salsbury, J. Symons, A. Weiner.

ADJUNCT FACULTY: P. Snyder.
Theatre is a performing art. It is also a major area of study through which one may gain a liberal arts education. The Department of Theatre offers a program which assumes these two views of the theatre to be mutually supportive rather than in opposition. The studies of designing, directing, acting, writing, stagecraft, history, theory, criticism, and dramatic literature are considered interdependent studies. However, a degree of specialization is expected of all students.

## Degree Requirements for the Major in Theatre

A student may elect either a 36 -credit General Program or a 54 -credit Departmental Program in which emphasis in a particular area of theatre is required.

All theatre majors take the following 21 credit core sequence of courses:

Thr 207, Thr 210, Thr 220, Thr 235, Eng 337 or Eng 338 plus six credits of upper division history and literature courses available in the Theatre Department.

## General Program

36 -credits (At least 12 credits must be at the 300 level or above.) Students in the General Program are required to take the 21 credit core plus 15 additional credits as advised in performance and/or production courses.

## Departmental Program

54-credits (At least 18 credits must be at the 300 level or above.) Students in the Departmental Program are required to take the 21 credit core plus one of the two areas of concentration.

Acting/Directing Concentration:
Thr 240, Thr 250, Thr 300, Thr 340, Thr 350, Thr 351 , Thr 440 , plus an additional 12 credits as advised. Design/Technical Theatre Concentration:

Thr 300, Thr 360, Thr $365^{*}$, Thr 370, Thr 375*, Thr 380 , Thr $385^{\circ}$, plus an additional 14 credits as advised.

[^5]A student wishing to concentrate in Dramatic Theory, History, and Literature should enroll in the General Program and plan a Second Field to accommodate such interests.

Thr 110 The Black Theatre in America (3)
Same as Aas 110.
Thr 140 Acting and Directing Fundamentals (3)
Introduction to the art \& craft of acting \& the responsibilities of the director in the areas of play selection, analysis, casting, \& rehearsing. Through class projects \& exercises, emphasis is placed on the practical application of basic acting and directing principles: For non-majors \& majors with little or no performance background.

## Thr 207 Introduction to Dramatic Art (3)

The components of dramatic art; attention to the contributions of acting, script, makeup, scenery, lighting, sound, music, and architecture to the theatre as a unified creative expression.

## Thr 210 World Drama (3)

An examination of major dramas from the Greeks to the late nineteenth century, with consideration of their literary, theatrical, and socio-cultural values.

The interaction of cultural, political, economic, and scientific forees-upen-dramatie-art-during-the-major-epochs_in_Western civilization and their implications for the modern movements in dramatic theory and practice. Prerequisite: Thr 207, 210.

## Thr 225 American Theatre History (3)

Development of theatre in the United States from its seventeenthcentury beginnings to the present; particular attention to theatres, plays, and players since 1850 including frontier theatre, regional repertory theatre, musical theatre, and the rise of vaudeville, burlesque, Broadway, and film.

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Thr 235 Design and Technical-Elements of-Theatre (3) (4)
The function and coordination of theatre architecture, scenery, lighting, make-up, costume and sound. Fin addition to show of fectere this course will meet in te b, sessionis ta cfive partapain in Theatre Thr 240 Acting I (4) Dept.major frodaction altivittes s ales vequired.

An integrated approach to building an acting technique as an actor/actress prepares intellectually, emotionally, and physically to create characterizations. One master class and two two-hour voice, movement, and performance labs per week. Prerequisite: consent of instructor.

## Thr 250 Theatrical Make-up (1)

Study of the design and technique of theatrical make-up. Lecture/laboratory. Meets once a week for $11 / 2$ hours. Prerequisite: consent of instructor.


Application of theatre study to the challenges of theatre practice through participation in the production work of the State University Theatre. May be repeated six times. Prerequisite: Thr 207.

Thr-301-Foundations-of-Children's Theatre (3)
Development of materials for Children's Theatre, including muss cal pantomimes, improvisions, and dramatizations; implications of these materials for_experimental production techniques
Thr 302 Approaches to Child Drama (3) See newdaxinfto $5 / 78$
The -development of-leadexship-skills-in=-lwamitie-play for childrentymethods; materials-and-teehniques-to-stimalate-the-ereas -tive-preeess-Qbserwation-and-participation-in-whe-departmentso-e Child-Wrama-W/orkshopoue .

The direction of young persons from nine through the 'teens in production for the child audience with -attention to special problems to be encountered when working-with the older child. Emphasis upon all production aspects from casting through performance, culminting in a laboratory -presentation before an_audience,
Prerequisite: consent-af-instauctox.
Thr-304-International_Aspects-of-Ghildren's-Theatre-(3)


Philosophies, attitudes, and forges shaping present-day practices in children's theatre throughout the world including an analytical study of selected foreign -scripts and-productien-teehmtques.

## Phr. 310 Readers theine (3) 5/78 Mem uo.5/3/

$\checkmark$ The 330 (Owl 330) Theories of Dramatic Production -(3)
An investigation and evaluation of the precursors of the major modern movements in dramatic productions. Emphasis on Zola, Antoine, Duke George II of Saxe-Meiningen, Appia, Reinhardt, Gopeau, Belasco, and Craig.

## >hr 340 Acting II (4)

A continuation of The 240 with increased emphasis on the development of characterization. One master class and two two-hour voice, movement, and performance labs per week. Prerequisite: The 240 or consent of instructor.
Thr 350 Directing I (3)
The fundamentals of directing for the theater, with emphasis upon an organized sequence of operation, and the preparation of a prompt script. Prerequisites: Phr 235, 240, and consent of instructor.
Tor 351 Directing II (3)
A study of style in theatre, and its practical application from the point of view of the director. Prerequisite: Chr 350.

Thy 360 Stagecraft (4)
The basic elements of set design and construction. A study of basic shop techniques and procedures, mechanical devices used on the stage, materials used in set construction, elementary mechanical

## Degree Requirements for the Major in Geological Sciences

## General Program

B.S.: A minimum of 66 credits for the combined major and second field including Geo $120,210,220,230,240$, 310,330 or $470,460,400,410$ or 480 or 440,450 or 497 ; Mat 112, 113; Phy 120, 121, 124, 125; Chm 121 a and b, 122 a and $\mathrm{b}, 320,321$ (or Chm 340, 341 as advised). Students are strongly urged to elect the following addiitonal courses. Mat 214, Mat 220 or 310, Phy 220, 221. Students are also encouraged to take electives in computer science and English, and those who expect to do graduate work in geology should acquire a reading knowledge of Russian, German, or French.

## Teacher Education Program

B.S. in Earth Science: A minimum of 65 credits for the combined major and second field including Geo 100, 200, 205, 210, 220, 230; Mat 112, 113; Chm 121, 122, 320, 321. Phys 105, 106; Asy 123, 124; Atm 103; plus nine additional credits in geology 300 level courses or above. Teaching certification in General Science may be obtained by adding Bio 101 or Bio 102. Students are also encouraged to elect Gog 201.
Geo 100 Planet Earth (3)
A survey of current developments in our understanding of the evolution of the earth. Major topics covered will include: composition and origin of the earth-moon system, seismology and earth structure, plate tectonics, origin of continents and oceans, and the origin of life. Three lectures each week. Fall and Spring sessions.
Geo 105 (Env 105) Environmental Geology (3)
Introduction to and survey of the geologic aspects of the environment, geologic aspects of health and disease, waste disposal, mineral resourcees and cōnservation, land reclamation, land-use planning, and geologic hazards. Three lectures each week. Spring session.
Geo 110 Introductory Geology in the Field (2)
Basic principles of geology illustrated by field examples in the Albany area. Elementary recognition and understanding of landforms, rock types, structural features, fossils, and minerals. Representation of geological features on maps. Eight weeks only; two lectures, one four-hour field trip each week. No prerequisites. Fall session.
drawing for the theatre. Three hours of lecture and one three-hour laboratory per week. Prerequisite: Thr 235.

## Thr 365 Scene Design (3)

The applications of the principles of design to the theatre. The analysis of the script in visual terms and the translation of this into the design for a setting. Prerequisite: Thr 360.

## Thr 370 Lighting and Sound (3)

Introduction to the equipment used in stage lighting and sound, the principles of its operation, rigging, and proper maintenance. Subject areas will include basic optics, acoustics, electricity, and electronics. Knowledge of simple algebra necessary. Prerequisite: Thr-235.

## Thr 375 Lighting Design (3)

Light as a design element in theatrical production. The phenomena of color as applied to lighting, the various methods available for lighting the stage, advanced consideration of lighting control systems and their effect on design, and the preparation of lighting plots. Preparation of plots will require elementary mechanical drawing techniques and materials. Prerequisite: Thr 370.

## Thr 380 Costuming (3)

Introduction to basic theory, and techniques of theatrical costuming. Lectures, on costume history and design theory inoluding laboratory on construction techniques and procedures. Prerequisite: Thr 235.

## Thr-385-Advanced-Costuming-(3)

Application of costume design theory to costume design and construction methods, including laboratory period. Prerequisite: Thr 380.

## Thr 397 Independent Study in Theatre (2-4)

Directed reading and conferences on selected topics. A student may take the course once as strictly research, and once as a pro-duction-related study, but not repeat one or the other. Prerequisite: consent of the instructor and department chairman.

## Thr 410 Theatre in Process (3)

An intensive study of the components of theatre in relation to production activities of State University Theatre. Prerequisites: Thr 235, 240 and consent of instructor.

## Thr 415 Summer Theatre Production and Management (6)

Intense, practical training in \& application of a full range of theatre skills-performance, production, management, public relations; preparation of four productions during session. Full-time commitment required (morning, afternoon, evening) to State University Summer Theatre. Audition/interview required; may be repeated once for credit; only six hours applicable to requirements for major.

## Geo 120 Fundamentals of Geology (3)

Chemistry, structure, and macroscopic identification of the major groups of rock-forming silicates, classification of rocks. Surface processes, spatial and temporal relationships of rock masses. Topographic and geologic map interpretation, geologic field work. Two lectures, one lab each week. No prerequisites. Spring session.
Geo 200 Physical Geology (3)
The materials of the earth's crust and the processes that shape its features. Laboratory; identification and significance of common minerals and rocks, and evaluation of topographic and geologic maps. Two lectures, one lab each week. Not open to students who have completed Geo 120. Fall Session.

## Geo 205 Historical Geology (3)

The history of our planet as a logical interpretation of rock sequences, their major structure and the evolution evident in their fossils assemblages. Laboratory; an introduction to paleontology and stratigraphy. Two lectures, one lab each week. Prerequisite: Geo 200 or consent of instructor. Spring session.

## Geo 210 Mineralogy I (3)

The atomic structures of minerals and the thirty-two crystal classes. Introduction to x-ray crystallography and crystal chemistry. Optical orystallography, goniometry, crystallographic calculations and projections. The polarizing microscope. Two lectures, 锅第 labs each week. Prerequisite: Geo 120 or consent of instructor. Fall session.

Geo 220 Mineralogy II (3)
Desoriptive mineralogy, especially optic determination of rockforming minerals, with the polarizing microscope. Chemical and crystallographic properties of rock-forming minerals. Two lectures,

Geo 230 Chronology and Field Methods (4)
Analysis of the principles which lead to our understanding of the spatial and temporal relationships of rock sequences, emphasizing correlation by lithologic, biologic, and geochronologic methods. Two lectures, one lab each week, integrated with some field work. Prerequisite: Geo 120 or consent of instructor. Fall session.

## Geo 240 Structural Geology I (3)

Descriptive structural geology with emphasis on features seen on the outcrop and map soales. Regional structural associations. Two lectures, one lab each week including some field work. Prerequisite: Geo 120 or consent of instructor. Spring session.

## Geo 310 Igneous Petrography and Petrology (3)

Description, properties, classification, and occurrence of igneous rocks; their mineralogical and chemical relationships. Examination of major igneous rock types and series. One lecture, two labs each week. Prerequisite: Geo 220. Fall session.

Geo 320 Metamorphic Petrography and Petrology (3)
Description, properties, classification, and occurrence of metamorphic rocks. Change of mineral assemblages with temperature and pressure. Examination of major metamorphic rock types and associatjons. One lecture, two labs each week. Prexequisite: Geo 220 and Geo 310. Spring session.

## Geo 330 Sedimentary Petrography and Petrology (3)

Modern continental and marine depositional environments. Provenance, dispersal, and deposition of clastic sediments. Deposition of chemical and biogenic sediments. Mineralogy and fabric of sediments, characteristics and recognition of paleo-environments. Two lectures, one lab each week. Prerequisite: Geo 220 and Geo 310. Spring session.

## Geo 340 Strucłural Geology II (2)

An introduction to selected topics in mechanics including stress, strain, and stress-strain relations. One two-hour lecture each week. Prerequisite: Geo 240. Fall session.

## Geo 370 Economic Geology (3)

Nature, occurrence, and origin of metallic ores, economic evaporites and chemical sediments, coal, oil and gas. Elementary hydrology. Methods used in prospecting and evaluating economic depgsits. Two lectures, one lab each week. Prerequisite: Geo 220 and 240 . Offered biannually, in alternation with Geo 380. Spring session. Geo 380 Paleontology (3)

Invertebrate fossils; their comparative anatomy, paleoecology, evolution, correlation. Two lectures, one lab each week. Prerequisite: consent-of-instruetor.-Offered-biannually-in-alternation with Geo 370. Spring session.

Geo 400 Advanced-Pletd Methods (6). Field Mappine (6) Training in basic-surveging methods andे gevologic mapping.-Foyr weeks (starting the firsy/Monday after spring term exams finish) in of report, Prerequibite: Geo 230 and-240. Stadents may repeat course noce for an additional-six=eredits.

## Geo 410 Geochemistry (4)

Origin, abundance and distribution of elements in various media. Physiochemical concepts of geologic processes and the application of thermodynamics and phase equilibria. Study of factors controlling element dispersion, and other topics. Four lectures each week.
Prerequisite: Chm 121, 320, or 340. Fall session.

## Geo $\mathbf{4 4 0}$ Strūctūral Geoology III (4)

Structural analysis, mechanisms of rock fracture and flow, interpretation of regional stress and strain history from structural featưres. Four lectures each week with some field work. Prerequisite: Geo 340. Spring session.

## Geo 450 Special Topics (3)

A structured program of reading and seminars leading to an indepth understanding of a chosen topic in geology. Prerequisite: consent of instructor. Students may repeat course once for an additional three credits. Either session.

# Geo 460 Marine Geology (3) 

Geology of the ocean basins with emphasis on the morphology, sediments, sedimentary processes, crustal structure, and evolution of the ocean floor. Three lectures each week. Prerequisite: consent of

Geo 470 Tectonics (3) Fallessession
Seimologic basis for plate tectonics, kinematics of plate motion, geometry and evolution of plate mosaics. Analysis of the structure ${ }^{y}$ and history of shields, platforms, rift valleys, plateaux, continental margins, island ares, transcurrent fault zones, and orogenic belts. Two lectures, one lab each week. Prerequisite: Geo 240 and Geo 460. Spring session.

## Geo 480 World Historical Geology (4)

An integrated survey of the geologic history of the earth. Four lectures each week. Prerequisite: Gequall session.
Geo 497 Independent Study (3)


A field or laboratory investigation of a chosen geologic problem, including the writing of a research report to be undertaken during the senior year. Prerequisite: consent of instructor. Students may repeat course once for an additional three credits. Either session.

## DEPARTMENT OF GERMANIC LANGUAGES AND LITERATURE

FACULTY: S. Barlau, F. Beharriell, U. Maché, E. Moore, T. Nadar, E. Schrader-Gentry, J. Spalek, J. Strelka, J. Winkelman.

The department endeavors to expand the student's intellectual horizon to embrace a culture other than his/her own. The foreign language is therefore treated both as an end and as a means to the larger end of acquainting the student with the foreign country and its culture.

## Special Programs or Opportunities:

Extra-curricular opportunities to practice the foreign language are afforded by language clubs and language tables. Students in the department may participate in the summer program of the Goethe-Institute or may qualify for a year-abroad program at the University of Würzburg.

## Degree Requirements for the Major in German

## General Program

B.A.: At least 30 credits of German above Ger 205, inclouding Ger 300 a and b, $301 \mathrm{a}, 308 \mathrm{a}$ and b, 400, and a minimum of six credits in upper division literature courses.

## Teacher Education Program

B.A.: At least 30 credits of German above Ger 205, including Ger 300 a and $\mathrm{b}, 301 \mathrm{a}, 308 \mathrm{a}$ and $\mathrm{b}, 400$, and a minimum of six credits in upper division literature courses.

## Honors Program

B.A.: Students may apply to the program by letter to the Chairman of the Department of Germanic Languages and Literatures before April 1 of the student's sophomore year. Admission to the program will depend upon prior performance of the student which can be supported by letters of recommendation from his teachers.

## Honors Requirements

Ger 300 a and b, $301 \mathrm{a}, 308 \mathrm{a}$ and b, 391 a and b, 400, 491; and at least 6 credits in literature at the 400 level.

For each of its undergraduate major programs, the department recommends a course in German history as a supplement.
Ger 101 Elementary German (4)
Beginner's course with audio-lingual approach. Emphasis on fundamentals of German grammar, pronunciation and oral expression; graded readings. Five classes, two half-hour laboratories each week.

Ger 102 Elementary Gering (4)
Continuation of audio-lingual approach of Ger 101. Reading of selections from German fiction to further develop the reading skill. Five classes, two half-hour laboratories each week. Prerequisite: Gef 101 or placement by examination.
Ger 110 Business German for Beginners (4)
Beginner's course intended for students majoring in business, economics, or related fields. Audio-lingual approach. Five classes, two half-hour laboratories each week.
Ger-4y-Intermedfate Business-German_(4)
Continued practice in German grammar with emphasis on busit ness vocabulary. Reading of busirtess oriented material. Five classes;


## Cwl 114 German Literature in English Translation (3)

See courses in Comparative Literature.
Cwl 115 Modern Dutch and Flemish Literature in Translation (3) See courses in Comparative Literature.

## Ger 120 Germany: East and West (3)

Exploration and discussion of various aspects of German civilization since 1945, as illustrated by contemporary literature, art, and thought. Team teaching and use of audio-visual materials such as films and slides. Conducted in English.

Ger 125 Goethe to Thomas Mann in English Translation (3)
Representative authors and works from the end of the 18th centory to the beginning of the 20th. Includes: Goethe, Kleist, Heine, Büchner, E.T.A. Hoffmann, Fontane, Thomas Mann. Lectures and readings in English.

## Ger 180 Contemporary German Novelists (3)

The representative German novelists from 1945 to the present, including Böll, Grass, Frisch, Johnson, Lenz. Discussed-against-the background of contemporary social, political and literary developments, both in West and East Germany. Lectures and discussions in English.

## Ger 201 Intermediate German (4)

Review of grammar and syntax, followed by literary readings in conjunction with a continuation of the audio-lingual method. Four classes each week. One hour laboratory attendance each week is refommended. Prerequisite: Ger 102 or placement by examination.

## Ger 202 Intermediate German (3)

Continued literary readings in conjunction with a continued emphasis on the audio-lingual method. Three classes each week. One hour laboratory attendance each week is recommended. Prerequisite: G 6201 or placement by examination.
Ger-205-Sclentific German (3)
Reading and technique of translation of scientific works for those who wish to use the language in research. Prerequisite: Ger 201 or placement by examination.

A survey of cultural history of Germany from the Renaissance to the present. Particular emphasis on the impact of other European civilizations on German life as well as on German contributions to Western traditions. Slides and other visual aids are used to supplemont the lectures. Conducted in English. Ci nama (3) (G A/2/rz) Ger 240 Great Authors in English Translation (3)

Concentration on the works and life of one major author, such as Franz Kafka, or one of the Nobel Prize winners Thomas Mann, Hermann Hesse, and Heinrich Böll. The works selected will be *chosen for their literary value as well as for their significance as a commentary on the problems facing man in our century. Lectures and readings in English. Course may be repeated when subject changes.
Ger 241 Brecht: Poet and Playwright (3)
A study of representative dramatic and poetic works by Brecht with emphasis on theory and practice of "Epic Theater" and its

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& \text { Switzerland (3) } \\
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\end{aligned}
$$

contributions to modern drama and film; discussion of biographical and political aspects of Brecht's career as reflected in his work. Lectures and readings in English, supplemented by films and recordings.
Ger 250 German Folklore and Oral Traditions (3)
A survey of German oral traditions and customs in Germany, Austria and Switzerland; their origins, meanings, and reflections in literature of the 19th and 20th centuries, with slides, films and musical illustrations. Conducted in English.

## Ger 260 Humor and Satire in German Literature (3)

Reading and discussion of German humorous and satiric literatore in all genres, in prose and verse. The readings and lectures are supplemented by discussion of the theories of humor and satire. Conducted in English.

## Ger 270 Nordic Saga and Myth (3)

Readings and discussion of the Poetic Edda, mythic songs of gods and heroes, and Icelandic family sagas. Life in the pre-Christian era as demonstrated by archeological discoveries. Conducted in English. $\checkmark$
Ger 300 a and $b$ Intermediate Conversation and Composition (3, 3)
Intensive oral practice; building of active vocabulary; conversaton and composition based upon readings from German literature and history. Classes meet three times per week. Prerequisite: Ger 202 or placement by examination including a written portion, Ger 300 a is a prerequisite for Ger 300 b .

## Ger 301 a and b Advanced Conversation and Composition $(3,3)$

Advanced oral practice; building of active vocabulary; converseton and composition based upon readings from German literature and history. Classes meet three times per week. Prerequisite: Ger 300 b or placement by examination including a written portion. Ger 301 a is a prerequisite for Ger 301 b .

## Ger 308 a Masterworks of German Literature I (3)

Selected masterworks of German literature, mainly from the 18th and 19th centuries. Introduction to literary analysis. Prerequisite: Ger 202 or placement by examination.

## Ger 308 b Masterworks of German Literature II (3)

Selected masterworks of German literature from the 19th and the 20th centuries. May be taken prim to Ger 308 a. Prerequisite: Gp. 202 or placement -by examination
Ger-311-German_civilizationan 3 )
Social and historical background of modern German institutions Ind life. Students who plan to teach German are advised to elect this course. Conducted in Germant-Prerequiste:-GeF 300 or con-
 eff, $12 / 77$
types and movements in German lyric poetry. Includes works of Goethe, Hölderlin, Eichendorff, Heine, Rilke and others.
(Prerequisite: Ger 202 or consent of instructor.

See courses in Comparative Literature
Ger 391 a Junior Honors in German (4)
New Freq,
Study of selected major works of German literature. Preparation of project for relation to the background of their authors and periods. Training in techniques of literary analysis, criticism, and research by discussion, instruction in bibliographical methods, and the writing of regular short papers. Restricted to junior German majors who have been admitted to the Honors Program.
Prerequisites: Ger 308 a and b or concurrent enrollment. First session.

## Ger 391 b Junior Honors in German (4)

Independent reading program in German literature. Preparation of project for individual study. Limited to members of the German Honors Program who have completed Ger 391 a. Second session.

## Ger 400 Growth and Structure of the German Language (3)

Introduction to phonological and morphological systems of Geryhan. Survey of the development and structure of German from the earliest timesto the present. Lectures in English.

## Ger 415 Masterworks of Medieval German Literature (3)

Study of the major works and literary trends of the German Middle Ages including selections from the Hildebrandslied, Nibelungenliedt,_Parzival,_Tristan,_and_Ackermann_aus_Böhmen-as well as the major poets of the Minnesang. The course includes an introduction to the cultural and historical background of the period. Prerequisites: Ger 308 a and b or consent of instructor

Ger 430 Age of Goethe I (3)
Reading and discussion of selected works of Lessing, Goethe, Schiller and their contemporaries. Prerequisites: Ger 308 a and b or consent of instructor.

Ger 435 Age of Goethe II (3)
Reading and discussion of selected works of the German Romantics and their contemporaries. Prerequisites: Ger 308 a and b or consent of instructor.

Ger 440 19th Century German Prose Fiction (3)
Reading and discussion of representative novels and novellas" by the principal German authors of the 19th century. Prerequisites: Ger 308 a and b or consent of instructor.
Ger 445 19th Century German Drama (3)
Reading and discussion of major dramas of the 19th century and the relevant dramatic theories. Prerequisites: Ger 308 a and b or consent of instructor.

Reading and discussion of representative prose works by the principal German authors of the 20th century. Prerequisites: Ger 308 a and b or consent of instructor.
Ger 455 20th Century German Drama (3)
Reading and discussion of representative German dramatists of the 20th century. Prerequisites: Ger 308 a and b or consent of instructor.

## Ger 460 Goethe's Faust (3)

Reading of Goethe's Faust against the background of Goethe's life: the growth of the Faust legend and of previous Faust dramas. Prerequisites: Ger 308 a and b or consent of instructor.

Ger 491 Senior Honors in German (4)
Writing of the Senior Honors Thesis under the direction of a member of the German faculty. Limited to members of the German fonors Program who have completed Ger 391 b. Either session.

Ger 495 a Reading German for Graduate Students (4)
Introduction to reading German for graduate students, followed by readings of gradually increasing difficulty.

Students passing both sessions with a grade of B or better will be certified to their major departments and to the Office of Graduate Studies as having attained a reading proficiency at least equal to that represented by passing the Princeton Graduate Reading Examination. Prerequisite: admission to graduate study.

## Ger-495-b Reading German for Graduate Students (4)

Continuation of Ger 495 a with readings of increasing difficulty. The last part of the second session will be devoted to reading unedited scholarly and scientific texts selected from the humanities, science, and social science fields.

Students passing both sessions with a grade of B or better will be certified to their major departments and to the Office of Graduate Studies as having attained a reading proficiency at least equal to that represented by passing the Princeton Graduate Reading Examination.
Ger 497 Independent Studies in German (3-6)
Projects in selected areas of German Studies, with regular progress reports. Prerequisite: consent of department chairman. May be repeated once for credit when topics differ.

## DEPARTMENT OF HISPANIC AND ITALIAN STUDIES

FACULTY: A. Baker, A. Berenguer, M. Bieder, R. Bosch, C. Brakel, A. Carlos, F. Carrino, R. Castagnino, S. E. Schyfter, D. Fachard, F. Frank, L. Jenaro-MacLennan, E. C. Munro, C. Nepaulsingh, R. Osuna, J. M. Polo de Bernabé, G. Rimanelli, R. Schmidt, A. Zitelli.
The Department of Hispanic and Italian Studies expects its students to become highly proficient in speaking, understanding, reading, and writing the foreign language as well as to develop a thorough knowledge of and an appreciation for the literature_and-civilization.-Proficiency-in-language skills is regarded not only as an end in itself but also as a means of studying a foreign culture. The department offers full programs leading to the B.A. in Spanish and Italian, and a Portuguese curriculum sufficient to permit an undergraduate a second field sequence.

All students wishing to enter language courses must take the placement examination administered by the department.

Language majors normally take, in their junior year, the proficiency examination in their respective languages administered by the New York State Department of Education.

## Special Programs or Opportunities:

Through the Honors program students are encouraged to undertake carefully supervised independent study.

The major in Inter-American Studies offered by the Center for Inter-American Studies allows for a concentration in Spanish. The Department of Hispanic and Italian Studies also participates in interdisciplinary studies in conjunction with programs in Linguistics, Puerto Rican Studies, the School of Education, and the Departments of Art, Classics, Comparative and World Literature, History, and Music.

A year-abroad program was initiated at the International Institute in Madrid, Spain in 1970. Pre-entrance summer programs are offered in Italy and Spain. For more detailed information, see "Office of International Programs-Study Abroad Programs." Use of the foreign language and the exchange of ideas are fostered through language dormitories, language clubs, colloquia, lectures, and other department activities.

## Degree Requirements for the Major in Italian *

## General Program

B.A.: A minimum of 33 credits including Ita 207 a and b, Ita 223, Ita 331 a and b, Ita 301, Ita 421. Twelve additional credits must be at the 300 level or above including three credits of literature courses at or above the 400 level.

## Teacher Education Program

B.A.: A minimum of 33 credits including Ita 207 a and b, Ita 223, Ita 301, Ita 311 a and b, Ita 421. Twelve additional credits must be at the 300 level or above including three credits of literature courses at or above the 400 level.
N.B. Lin 206 may be taken as part of the major sequence in both the General and Teacher Education Program.

## Ita 101 a and b Elementary Italian $(4,4)$

Beginner's course with audio-lingual approach; fundamentals of language structure and sounds; emphasis on correct pronunciation and oral expression; graded readings. Classes meet four times per week, plus two required homework periods in the language laboratory. Prerequisite: For Ita 101 a, for beginners: none; for students with high school Italian: placement. For Ita 101 b : 101 a or placement.
Ita 101 c Intensive Elementary Italian (8).
An intensive one-session elementary language course covering both 101 a and 101 b . Fundamental language skill with primary emphasis on audio-lingual skills. Meets ten hours per week, including one hour of supervised laboratory work. Prerequisite: For begifiners: none; for students with high school Italian: placement.
Ita 102 a and b Intermediate Italian $(4,3)$
Modern Italian readings: Review of Italian grammar, composition and conversation. Prerequisite: For Ita 102 a: 101 b or 101 c or placement; for Ita 102 b : 102 a or placement.
Ita 102 c. Intensive Intermediate Italian (7)
An intensive one-session intermediate language course covering both 102 a and 102 b . Primary focus on the development of reading skills and the improvement of audio-lingual skills. Meets eight hours per week including one hour of supervised laboratory work. Prerequisite: Ita 101 b or 101 c or placement.
*No degree will be awarded in this program after August, 1978.

## Cw 116 Italian Literature in English Translation

See Col 116.
lis 207 a and b. Intermediate Conversation and Composition (3, 3)
Primary emphasis on the active skills of speaking and writing.
Prerequisite: For It $207 \mathrm{a}: 102 \mathrm{~b}$ or 102 c or placement; for It

It 223 Introduction to Literary Methods (3)
Textual exposition of readings selected according to genre, with an introduction to literary terminology and writing. Prerequisite: Ital 102 b or 102 c or placement.

It 301 Advanced Conversation and Composition (3)
Intensive practice in speaking and writing Italian. Prerequisite: It 207 b $^{*}$ or placement.

It 311 a General View of Italian Literature (3)
Survey of Italian literature from its origins to the end of the Renaissance. Prerequisite: It $223^{* *}$ or consent of department chairman.

## It 311 b General View of Italian Literature (3)

Survey of Italian literature from the end of the Renaissance to (the present. Prerequisite: Ina $223^{*}$ or consent of department chairman.
It a 315 a Italian Civilization (3)
Study of fundamental aspects of Italian life, art, and thought during the Middle Ages and the Renaissance. Prerequisite: It 207-18 or placement. Italia disfeature (3)
$\sqrt{1 t a} 315$ b Italian Civilization (3)
Continuation of Sta 315 a from the Baroque period to the present time. Prerequisite: It $270 \mathrm{~b}^{*}$ or placement.
$\int \begin{aligned} & \text { ta } 397 \text { Independent Study in Italian }(14)(2-4)\end{aligned}$
Study by a student in an area of special interest not treated in currently offered courses. Work performed under direction of a professor chosen by the student on a topic approved by the department. May be repeated once with special departmental approval. Prerequisite: It 311 b .

It 401 Advanced Language (3)
Designed to give students intensive practice in conversation, dietion, and translation. Study of passages from modern Italian authors for style and shades of expression. Prerequisites: It 301 or placement.

## ta 421 Dante (3)

Introduction to the Diving Commedia. Conducted in Italian. Required of all majors in Italian. Prerequisite: It 311 a or consent of department chairman.

[^6]Ita 435 II Trecento (3)
Introduction to the literature of the period with special emphasis on Petrarch's Canzoniere and Boccaccio's Decamerone. Prerequisite: Ita 311 a or consent of department chairman.


Ita 441 a The lialian Renaissance (Part I) (3)
A study of Italian Renaissance, with emphasis on the individual authors as well as on their influence on other western cultures and on the thinking of the following centuries. Part I: from Petrarch to Valla to Boiardo and to the circle of Lorenzo de' Medici. The new critical spirit and the search beyond all traditional boundaries.
Prerequisite: Ita 311 a.

## Ita 441 b The Italian Renaissance (Pari II) (3)

Continuation of Ita 441 a. From Machiavelli, Ariosto, and Guicciardini to Cellini, Bandello, Vasari, and Tasso. Prerequisite: Ita 311 a or consent of department chairman.

ta 461 From Baroque to Arcadia (3)
A study of literature, trends, and ideas of the 17th and 18th centuries, from Galileo to Marino to Vico, and to Goldoni, Parini, and-Alfieri-Prerequisite:-Ita-311-b or consent of department chairman.

## Ita 471 Italian Literature of the 19th Century I (3)

From Neo-Classicism to Romanticism. A study of the prose and poetry of the early 19th century; in particular, the works of Monti, Foscolo, Leopardi, and Manzoni. Prerequisite: Ita 311 b or consent of department chairman.

## Ita 472 Italian Literature of the 19th Century II (3)

A study of the 19th Century prose and poetry, in particular the works of Caxducci, Pascoli, D'Annunzio, and Verga. Prerequisite: Ita 311 b_or_consent_of department chairman.

Ita 481 The Italian Novel of the 20th Century (3)
A study of the Italian novel from the beginning of the century to the present. Prerequisite: Ita 311 b .

Ita 482 Italian Poetry and Drama of the 20th Century (3)
Survey of the various trends and movements in contemporary Italian poetry and drama. Prerequisite: Ita 311 b .

## Portuguese

## Por 101 a and b Elementary Portuguese (4, 4)

Beginner's course with audio-lingual approach; fundamentals of language structure and sounds; emphasis on correct pronunciation and oral expression; graded readings. Classes meet four times per week, plus two required homework periods in the language laboratory. Prerequisite: For Por 101 a, for beginners: none; for students with high school Portuguese: placement; for Por 101 b: 101 a or placement.

Por 102 Intermediate Portuguese (4)
Continued intensive work with the four language skills, giving special emphasis-to-readings-Gonducted-in Portuguese. Prerequisite: Por 101 b or placement.

## Por 107 a and b Intermediate Conversation and Composition (3, 3)

Primary emphasis on the active skills of speaking and writing. Prerequisite: For Por 107 a: 102 or placement; for Por 107 b: 107 a or placement.

## Por 211 Introduction to Portuguese Literature (3)

Reading of major works of Portuguese literature from the Middle Ages to the present. Concentration on such masters as Camões, Gil Vicente, Garrett, Eȩa de Queiroz, Fernando Pessoa. Prerequisite: Por 102 or placement.

Por 212 Introduction to Brazilian Literature (3)
Reading of major works of Brazilian literature from the Colonial period until-the-present-Prerequisite:-Por-102 or placement.

## Por 221 Introduction to Literary Methods (3)

Textual exposition of readings, selected according to genre with an introduction to literary terminology and writing. Poetry and drama. Prerequisite: Por 102 or placement.

## Por 222 Introduction to Literary Methods (3)

Textual exposition of readings, selected according to genre with an introduction to literaxy terminology and writing. Prose genres. Prerequisite: Por 102 or placement.

## 

Study by a student in an area of special interest not treated in courses currently offered. Work performed under direction of a professor chosen by the student on a topic approved by the department. May be repeated once with special departmental approval. Prerequisite: Por 102 or placement.

## Degree Requirements for the Major in Spanish

## General Program

B.A.: A minimum of 35 credits including $\operatorname{Spn} 106$ a, Spn 107 a and b, Spn 123, Spn 211 a and b, Spn 301,

Spn 305 and 15 additional credits. Twelve credits must be at the 300 level or above, including a minimum of six credits of literature courses at or above the 400 level.

## Teacher Education Program

B.A.: A minimum of 35 credits including Spn 106 a, Spn 107 a and b, Spn 123, Spn 211 a and b, Spn 301, Spn 305 and 15 additional credits. Twelve credits must be at the 300 level or above, including a minimum of six credits of literature courses at or above the 400 level.
N.B. Lin 206 may be taken as part of the major sequence in both the General and Teacher Education programs.

## General Program in Inter-American Studies

Combined major and second field in Inter-American Studies-with emphasis in Spanish (B.A. degree). A minimum of 56 credits to include 27 credits of Spanish above 102 b, Por 101 a and b and Ias 400 . Eighteen credits of area studies to include His 100 a and b or His 131 a and b , 366 a and b , three additional credits of Latin American History as advised, and three credits as advised from courses in Social Sciences or Philosophy dealing with Latin America.

## Honors Program

B.A.: Admission to the Honors Program is by letter of application submitted to the chairman of the Department of Hispanic and Italian Studies by April 1 of the student's sophomore year and subsequent approval by the Department of the Honors Committee's nomination. The program requires a minimum of 35 credits including $S p n 106 \mathrm{a}, \mathrm{Spn}$ $107-\mathrm{a}$-and b, Spn 123, Spn-211-a and b-Spn 301,-Spn 305, Spn 391 a and b, Spn 491, and at least three credits in literature courses at or above the 400 level.

## Spn 101 a and b Elementary Spanish (4, 4)

Beginner's course with audio-lingual approach; fundamentals of language structure and sounds; emphasis on correct pronunciation and oral expression; graded readings. Classes meet four times per week; plus two required homework periods in the language laboratory. Prerequisite: For Spn 101 a, for beginners: none; for students with high school Spanish: placement; for Spn 101 b : 101 a or placement.

## Spn 101 c Intensive Elementary Spanish (8)

An intensive one-session elementary language course covering both Spn 101 a and 101 b . Fundamental language skills with primary emphasis on audio-lingual skills. Meets ten hours per week, including one hour of supervised laboratory work. Students required to make extensive additional use of laboratory facilities.
Prerequisites: For beginners: none; for students with high school Spanish: placement.

## Spn 102 a Intermediate Spanish (4)

Continued intensive work in language skills of listening, speaking, reading, and writing, with special emphasis on reading and the writing of short compositions. Prerequisite: Spn 101 b or 101 c or placement.

## Spn 102 b Infermediate Spanish (3)

Continued work with the four skills as in Spn 102 a, emphasis on the reading of more difficult material. Short compositions and discussions in Spanish. Prerequisite: Spn 102 a or placement.

## Spn 102 c Intensive Intermediate Spanish (7)

An intensive one-session intermediate language course covering both Spn 102 a and 102 b . Primary focus on the development of reading skills and the improvement of audio-lingual skills. Meets eight hours per week, including one hour of supervised laboratory work. Presentation and review of grammatical structures appropriate to these skills. Prerequisite: Spn 101 b or 101 c or placement.

Spn 105 Spanish for Native Speakers (4)
Especially designed for the native-speaker with little formal study of the language. Topics will include reading, spelling, grammar, composition, vocabulary building, with attention to individual needs. Five meetings per week including required laboratory. Prerequisite: Placement or consent of instructor.

## Spn 106 a and b Intermediate Conversation and Oral

Grammar (2, 2)
Primary emphasis on the active skill of speaking. To be taken simultaneously with Spn 107 a and b. Either or both terms of this course may be waived upon demonstration of sufficient oral skill. Prerequisite: For Spn 106 a: 102 b or 102 c or placement; for Spn 106 b: 106 a or placement.

## Spn 107 a and b Intermediate Composition and Written

 Grammar (2, 2)Primary emphasis on the active skill of writing. To be taken simultaneously with Spn 106 a and b. Either or both terms of this course may be waived upon demonstration of sufficient writing skill. Prerequisite: For Spn 107 a: 102 b or 102 c or placement; for Spn 107 b: 107 a or placement.

## Cwl 112 Hispanic Literature in English Translation (3)

See Cwl 112.

## Spn 123 Introduction to Literary Methods (3)

Textual exposition of readings, selected according to genre with an introduction to literary terminology and writing. Prerequisites: Spn 102 b or 102 c or placement.

Spn 211 a Representative Spanish Authors (3)
Survey of Spanish literature from its origins to the end of the 17th century. Prerequisite: Spn 123.

Spn 211 b Representative Spanish Authors (3)
Survey of Spanish literature from the beginning of the 18th /century to the present. Prerequisite: Spn 123.

## Spn 301 Advanced Conversation and Composition (3)

An intensive study of the language, with frequent short compositions. Either session. Prerequisite: Spn 106 b and Spn 107 b, or placement.

## Spn 302 Advanced Conversation and Composition (3)

An intensive study of the language, with special attention to analysis of construction and to organization, expression and style in themes. Either session. Prerequisite: Spn 301 or placement.

Spn 305 Spanish Phonetics (2)
Spanish speech sounds in prose and verse. Drill in conversational speech, intonation, and the analysis of sound production. Extensive use is made of recordings. Either session. Prerequisite: Spn 102 b or 102 c or placement.

## Spn 311 Readings in Early Spanish Literature (3)

Selected readings in Spanish literature from the 12th through the
15th century, with emphasis on both language and literature.
Prerequisite: Spn 123.

## Spn 313 Spanish Civilization (3)

A study of the unique character of the Spanish peoples and an xamination of the various aspects of Spanish culture through the 19th century.

Spn 314 a, b (Jst 314 a, b) Lilerature of the Spanish-Portuguese Jews and New Christians (3, 3)
Same as Jst 314 a, b.

## Spn 315 Hispanic Civilization of the 20th Century (3)

A study of the cultural manifestations of the great political and social changes which have taken place in Spain and Spanish America in the 20th century. A different country or group of countries will be studied each session. May be repeated once for credit.

Spn 316 a Spanish American Literature to 1888 (3)
Survey of literary movements in Spanish America. Selected readings, lectures, discussions, and reports on collateral readings. Prerequisite: Spn 123.

## Spn 316 b Spanish American Literature from 1888 to 1940 (3)

Survey of literary movements in Spanish America from 1888 to 1940. Selected readings, lectures, discussions, and reports on collateral readings. Prerequisite: $\operatorname{Spn} 123$.
$\int \begin{gathered}\text { Spn } 317 \text { Latin American Civilization (3) } \\ \text { A study of Spanish American culture }\end{gathered}$
A study of Spanish American cultures and institutions from the beginnings to the 20th century.

## $\sqrt{ }$ Spn 321 Spanish Drama (3)

Analysis of plays from various periods with emphasis on the specific characteristics of the genre. Prerequisite: Spn 123.
Spn-323_Spanish_Poetry_(3)
Analysis of poetry from various periods with emphasis on the /specific characteristics of the genre. Prerequisite: Spn 123.
$\sqrt{\text { Spn } 324}$ The Spanish Novel (3)
Analysis of novels from vaxious periods with emphasis on the /specific characteristios of the genre. Prerequisite: Spn 123.

## Spn 325 Spanish Short Fiction (3)

Analysis of selections from various periods with emphasis on the specific characteristics of the genre. Prerequisite: Spn 123.
$\sqrt{\text { Spn }} 333$ Don Quijote de la Mancha (3)
A study of Don Quijote, including consideration of its importance in world literature. Readings and discussion in English. Majors are (expected to read the novel in Spanish.

## Spn 344 -Women-in-Hispanic-Literature-(3)

Images of women as reflected in diverse works in Hispanic literature. Readings and discussions in English.

## SpR 391 a Junior Honors in Spanish (4)

Stuay of selected major works in Spanish literature in their entirety and with rehation to the background of theirauthors and periods. Training in techintewes of litexaxymanalys, criticim, an
 the writing of regular short papers. Réstrieted to junior Spanistre majors whonave been admitted to the Honors Program Acceptable as a 400 level literature course for the major requirement. Prerequisites: Spn $211 \mathrm{a}^{*}$ and $211 \mathrm{~b}^{*}$. First session
Spn 391 b Junior Honors in Spanish (4)
Realing orogram in areas of Spanish literature ${ }^{\text {Preparation-of }}$ project for individuateotudy. Limitadetomembers of the eppinish Honors 中rogrumpwhem 400 level-literature course for the mafor requixement. Second session.

Spn 397 Independent Study in Spanish (1-4)
Study by a student in an area of special interest not treated in courses currently offered. Work performed under direction of a professor chosen by the student on a topic approved by the department. May be repeated once with special departmental approval.
Prerequisite: Spn 211 a or $\operatorname{Spn} 211 \mathrm{~b}$.

Spy 401 Advanced Language (3)
Designed to give students intensive practice in conversation, diction and translation. Study of passages from modern Spanish authors for style and shades of expression, Either term.
Prerequisite: $\mathrm{Spn} 30{ }^{*}$ * or 302 or placement.


Spy 402 Spanish Linguistics: Morphology and Syntax (3)
A survey of the structure of the Spanish language in the light of current linguistic theory. Emphasis will be on the fields of morphology and syntax. Prerequisite: Sn 305 or consent of instructor.
Sp 403 Spanish for Teachers, 呮)
An intensive course in Spanish grammar with the needs of the beginning teacher in mind. Emphasis on those aspects of grammar which cause the most difficulty to English-speaking students. A quarter course. Meets four hours per week. Prerequisite: Sn 301 pr placement.

Sun 404 Advanced antred-cenwexsatioxad practice based on topics of Hispanic $33 / \%$ culturecoA-quarter course. Meets twice weekly for a total of two-. $\int^{\text {hours-perwweek-Prerequisite: } \operatorname{Spn} 30 t=01 \text { placement. Newdencrip. }}$
Sn 405 Evolution of the Spanish Language (3)
Development of modern Spanish from Vulgar Latin; medieval forms; phonology and morphology.

Spin 414 Literature of the Hispanic Caribbean (3)
A study of selected major writers of Cuba, the Dominican Republic, and Puerto Rico of the 19th and 20th centuries. Special consideration of literature as a reflection of situations and problems peculiar to the Hispanic Caribbean. Conducted in Spanish. Prerequisite: Spin 123.
Sp 416 Spanish American Literature 1940-present (3)
Survey of literary movements in Spanish America from 1940 to present. Major emphasis on the most recent developments in Spanish American literature. Prerequisite: Sn 211 a or 211 b.

Sn 420 20th Century Women Writers (3)
A study of the contributions of women writers to 20th Century Hispanic literatures. Special attention to the manner in which -women -perceive- reality -in- a- male-oriented world.- Prerequisite: Spa 211 b .

Spin 444 Comedy and Satire in Hispanic Literature (3)
Study of comic and satiric literature. Discussion on the theory of laughter, comedy, the absurd and the grotesque. Prerequisite: Sn 211 a or $\operatorname{Spn} 211 \mathrm{~b}$.
$\checkmark$ Spy 445 The Anti-Hero in Hispanic Literature (3)
A study of the anti-hero as a protagonist in Hispanic literature. Prerequisite: Sn 211 a or Syn 211 b.

Spn 446 Literature of Social Protest (3)
An examination of several major works of Hispanic literature which are interesting as literature and also as expression of social protest. Prerequisite: Spn 211 a or $\operatorname{Spn} 211$ b.
Spn 481 Spanish Literature of the 20th Century (3)
Study of the Generation of '98 within its historical and philo-. sophic context. Prerequisite: Spn 211 b.*
Spn 482 Spanish Literature of the 20th Century (3)
Study of contemporary Spanish literature from the Generation of
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of the Spanishefaculty. Limitedetomanem of the Spanish Howers
Progani who have completed Spn 391 b. Either term.


FACULTY: T. Barker, G. Barker-Benfield, T. Beck, D. Birn, K. Birr, A. Ekirch, M. Elbow, D. Ellinwood, L. Fields, J. Giovinco, J. Hahner, R. Hoffman, R. Kendall, S. Kim, H. P. Krosby, D. Liedel, J. Monfasani, C. Newbold, H. Price, W. Reedy, W. Roberts, B. Solnick, I. Steen, C. Tucker, R. Wesser, L. Wittner, J. Zacek.

The objective of the department is to provide its students with a thorough grounding in our cultural heritage seen from both social scientific and humanistic perspectives. The department prepares undergraduates for graduate work in history, professional schools such as law, secondary school teaching, and a variety of vocations which require a strong liberal education.

To accomplish its objectives, the department offers full programs leading to the B.A., the M.A., and the Ph.D. In addition, it participates in several inter-departmental programs including Asian Studies, Social Studies, Urban Affairs, Women's Studies, Inter-American Area and Language Studies and Russian and East European Studies. Students interested in ancient history, African history, Afro-American history, Jewish history, or Puerto Rican history are referred to the Classics Department, the Department of African and Afro-American Studies, the Department of Judaic Studies, and the program in Puerto Rican Studies.

[^7]
## Special Programs or Opportunities



The department encourages its majors to participate in those international programs relevant to their particular historical interests. For more detailed information, see heading "Office of International Programs."

## Degree Requirements for the Major in History

## General Program

B.A.: A minimum of 36 credits in history including: a minimum of 18 credits in one of the designated fields of concentration (American, Asian, Ibero-American, or European history); a minimum of six credits in courses at the 300 level or above outside the field of concentration; a minimum of three credits in a history colloquium or History 498.
(Combined major and second field in Inter-American Studies with emphasis in History): His 100 a and b, or 131 a and b, 366 a and b, and 12 additional credits of History relating to Latin America as advised; three credits as ad-vised-from-courses-in-the-Social-Seiences-or-Philesophy dealing with Latin America; Ias 400; seven credits of intermediate and advanced conversational Spanish, Spn 316 a and b, Spn 317, and Por 101 a and b.

## Teacher Education Program

B.A.: (Major in History and second field in Social Studies); 60 credits including: A major of 36 credits in history including: a minimum of 18 credits in one of the designated fields of concentration (American, Asian, IberoAmerican, or European history); a minimum of six credits each in American history and European history; a minimum of six credits in courses at the 300 level or above outside the field of concentration; a minimum of three credits in a history colloquium or History 498; A second field of 24 credits including: Eco 100 a and b; Gog 101 or 102, and three additional credits of Geography; Soc 115 and three additional credits of Sociology or Anthropology; six credits of Political Science as advised.

## Other Degree Requirements

Students seriously interested in graduate work in history are strongly urged to develop a competency in at least one modern foreign language.
His 100 a and b American Political and Social History (3, 3)
A survey of American history from early times to the present with emphasis on the development of our political, constitutional, economic, social and cultural institutions. Either session may be faken without the other.

## His $131 \mathbf{a}$ and $\mathbf{b}$ History of European Civilization (3,3)

A survey of the political, economic, social, and cultural history of the-West-from-the-breakup-of-the-Roman Empire to the-present. This course is designed for freshmen. Either session may be taken without the other.

## His ${ }^{3}{ }^{7} 7^{7}$ Contemporary Latin America (3)

A survey of Latin American backgrounds followed by study of - the social, economic, and political problems of Latin America since World War II. Particular attention to the phenomena of social change, economic nationalism, and revolution.
His 176 a and b Introduction to Asian History (3, 3)
First session: An introduction to the cultures of South, Southeast, and East Asia, and the development of their major institutions and cultural patterns; interactions between cultures. Second session. The changing nature of Asian societies since the 18th century, in interaction with Europe and America. Either session may be taken with-out-the-other.

## His 193 Introduction to History (3)

An examination of the analytical, non-speculative, problems of historical inquiry, explanation, and argument. The topics of ques$\checkmark$ tion-framing, verification, generalization and narration are emphasized. Selected readings, discussion and critical papers will introduce the student to an analysis of the logic of historical thought.
His ${ }^{4} 8_{0} 6$ History of New York State to the Civil War (3)
A study of the social, economic, and political development of New York State from the Revolution to the onset of the Civil War.

## Himers. Women in European History (3)

A survey andere of women in major periodsy history with emphasis on heged status modinfluence, cultural and social leadershimutrinitial retucturshins. meme $/ / 2 / / 2$
His 286 a and b (Aas 286 a and b) History of Africa (3,3)
First session: Africa from pre-historic times to 1800 with emphasis on sub-Saharan Africa, the development of indigenous states, and their response to Western and Eastern contacts.

Second session: Africa since 1800: exploration, the end of the slave trade, the development of interior states, European partition, the Colonial period, and the rise of independent Africa. Either session may be taken without the other.

His 293 History of Women in the Americas (3)
A historical survey of the role of women in the United States, Canada, and Latin America from colonial times to the present, with emphasis on social, intellectual, political developments, and feminist movements.

## Ansem $^{4}$ sid

A study of selected topics in recent history which combines the $V$ traditional historical approach with whatever is applicable from sociology, psychology, anthropology, and economics.

## CONCENTRATION IN THE HISTORY OF THE UNITED STATES

His 305 Colonial America to 1763 (3)
A survey of major aspects and events in the colonial period, with , particular emphasis on the growth of uniquely American culture and infstitutions
His 306 Thenevetationarican Revoluotron
A detailed survey of the American Revolution, the making of $/ 10 / 177$ constitutions, and the historic experiment in federal-republicanism; the clash of ideas and interest on the rapidly changing domestic ghd foreign scenes; the search for unity in the new nation.

His 307 Nationalism and Reform 1815-1848 (3)
A survey of the growth of nationalism, the emergence of a reform impulse, the age of individualism and egalitarianism, the development of the second American party system, technological, cultural, and social change.
His 308 Division and Reunion 1848-1877 (3)
Causes of the American Civil War, the war on military and Avilian fronts, and Reconstruction and its aftermath.

His 309 The Emergence of Modern America, 1877-1900 (3)
A detailed survey of the complexity and diversity of the period emphasizing the impact of industrialization, urbanization, and mass immigration upon politics, diplomacy, agriculture, labor, religion, and thought.

His 310 a and $b$ The United States in the 20th Century (3,3)
An intensive survey of United States history from 1900 to the present, with special emphasis on political and social developments. -First sessioñ: The Progressive Era, World War I, the Twenties, and the Great Depression. Second session: F.D.R. and the New Deal, World War II and the Cold War, McCarthyism, and politics and society since the 1950 's. Either session may be taken without the $g^{t h e r}$.

## His 322 a and b American Social History (3, 3)

A historical survey and analysis of American society with attention to immigration, ethnic groups, labor problems, changing class and family structure, population and mobility patterns. Either ses-

His 325 The Quest for Equality in United States History (3)
An examination of social and political movements seeking a more egalitarian social order, among them abolitionism, communitarianism, trade unionism, Populism, anarchism, socialism, racial egalifarianism, and feminism.
His 356 The World at War, 1939-45 (3)
For description, see listing under Concentration in European History.

A historical survey of our relations with other countries from the Revolution to the present; the formulation of American foreign (. policy and its execution by diplomatic and other means; the role of domestic affairs and of social, cultural, and economic contacts_with other countries in shaping our foreign relations. Prerequisite: His 100.

His 415 a and b American Economic History (3, 3)
The development of the American economy and its impact on American life and society. The first session carries the survey into the second half of the 19th century. The second session carries down to the present. Prerequisite: His 100 or Eco 100.

## $317 a^{*}+6 \cdot 12 / 7{ }^{2}$ History of the American City (3, 3)

A chronological and topical survey of the American urban scene, with emphasis on the causes and consequences of urban growth, the similarities and differences among various cities, and the attempts to fulfill the needs of an urban environment. The first session begins in the colonial period and traces developments to the second half of the 19th century. The second session examines-the-urban-seene from the latter 19th century to the present.

His 419 (Aas 419) Afro-American History (3)
A survey of Negro life and history in the United States; the con$v$ tributions of Negroes to the development of American cultural and economic life; recent trends and social dynamics.

## His 425 a American Intellectual History to 1860 (3)

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Key ideas and significant patterns of thought in American life: - Puritanism, the American Enlightenment, nationalism, transcendentalism, democracy, and reform. Prerequisite: His 100 a and b or Eng 270 a .

## His 425 b American Intellectual History Since 1860 (3)

Key ideas and significant patterns of thought in American life: the impact of economic expansion, Darwinian evolution, pragmatism, war and changing ideologies of liberalism, progressivism and fonservatism. Prerequisite: His 100 a and b or Eng 270 b .

## His 426 Political and Social History of New York State

 Since 1875 (3)The interaction of state and national political forces, parties, and personalities will be examined against the background of the significant social changes of the period. Prerequisite: His 100 b , or 226
> or equivalent.
> wof $H 15365 a+b$ war + society $(3,3)$
His 369 mexicp, antral Amer, t the
west Indiks west Endiks since 1810 (3) $12 / 72$ HIS 371 South America since 1810 (s)

His 420 History of the American South (3)
The South from the Revolutionary Period to the present with accent on the 19th century when the distinctive characteristics and institutions were developed which influenced Southern attitudes toward major questions of national policy.

The following colloquia are limited to undergraduate students and may be taken only with the consent of the instructor, Specific topics to be examined in the colloquia will be announced at the time the courses are offered, and students may obtain a list of topics from the History Department at the time of preregistration. Colloquia may be repeated for credit.

## His 480 Colloquium in American History (3)

His 484 Colloquium in Approaches to History (3)
His 485 Colloquium in Comparative and Cross Cultural History (3)

## His 497 Independent Study in History (2-4)

Directed reading and conferences on selected topics in history.
Prerequisite: consent of instructor and department chairman. Can
be repeated for credit.
His 498 Introduction to Historical Research (3)
Introduction to methods of historical research. Conferences, discussions, and a-researeh-paper.-Prerequisite:-consent of instructor.

## CONCENTRATION IN EUROPEAN HISTORY

 Middle Ages, from ca. $5 \Omega^{\sim}$ ca. Te50min all major aspects. Second session: The bin of Western Europe durmparmeximh Middle $\qquad$ session: The 30 to 1300; in all major aspects. Memo प12\% 772

His 340 Europe 1648-1789 (3)
The 17th century crisis; 18th century society and government; the origins of the French Revolution.
-His 342 a Europe in the Age of Romanticism and Revolution (3)
The history of Europe during the early 19th century with em--1 -phasis on the-struggle against the Metternich system and the part played by the romantic movement in this struggle.
His 342 b Europe During the Age of Realism (3)
The history of Europe during the late 19th century with emphasis on industrialism, realism in culture, Darwinism, nationalism, and ipherialism.
His 344 a Europe, 1914-1939 (3)
The First World War and the peace treaties; reparations, war debts, inflation, and depression; the rise of social democracy, Fascism, and Communism; the international crises of the 1930's.

## His 344 b Europe Since 1939 (3)

The Second World War and postwar settlements; reconstruction and refugee problems; divided Europe and the Cold War; common markets and integration attempts; current social, economic, political, and security problems.

## His 346 a and b The History of England $(3,3)$

First session: The historical development of English society and government from early times to the 17th century. Second session: The history of the United Kingdom and of the British Empire and Commonwealth from the 17th century to the present. Either session may be taken without the other.

## His 349 a History of France to 1815 (3)

France- from $^{-}$its $^{-}$origins ${ }^{-}$to $-1815^{-}$with $^{-}$an emphasis ${ }^{-}$on the ${ }^{-}$period since 1643.

## His 349 b History of France Since 1815 (3)

A survey of the history of France from 1815 to the Fifth Republic, with attention to the political, social, economic, and cultural developments within France during this period.

## His 351 a and b History of Geimany $(3,3)$

First session: Germany to 1806. The ancient Germans; the development and collapse of the Medieval Empire; the growth of princely particularism; the Reformation; the Thirty Years' War; the rise of Prussia; the Aufklärung; the end of the old order. Second session: Germany since 1806. The wars of national liberation; Bismarck, unification, and the Wilhelminian Reich; World War I; the Weimar Republic; the Third Reich and totalitarianism; the German Federal and German Democratic Republics. Either session my be faken without the other.

## His 353 a and b History of Eastern Europe (3, 3)

The history, culture, and contemporary affairs of the people of the Baltic, Danubian, and Balkan regions from earliest times to the present. The first session carries the survey to the early 19th cenfury; the second session carries it down to the present. Either session may be taken without the other.

His 354 a and b History of Russia (3, 3)
The evolution of Russia from Kievan origins, Tartar conquests and the emergence of the Grand Duchy of Muscovy to the Russian Empire of the 18th and 19th centuries. The Revolution of 1905 and 1917, and the foundations, development, and expansion of Soviet Russia. Either session may be taken without the other.

## His 356 The World at War, 1939-45 (3)

A political, diplomatic, military, economic, and social history of the Second World War. Among the topics covered will be war and peace plans, the military campaigns in the European, Pacific, and North African theaters of war, the plight of conquered nations, the concentration camps, and the war crimes trials.

His 358 Revolution and Reaction in Modern Europe (3)
Popular and-intellectual responses to the trauma of rapid social, economic, and cultural change in the 19th and 20th centuries; stress on social conflict and on revolutionary movements and ideas, especially those of socialism and fascism.

## His 338a 12177

A survey of European history from 1300-1517 with emphasis on the western monarchies, Germany, and Italy. The social and economic bases of the Renaissance as it evolved in Italy and northern Europe, the New Monarchies, and the state of the Renaissance chärch. Prerequisite: His 131.

## 33512178 <br> His $4 \ominus 9 \times 10$ Europe in the Age of Reformation (3)

A survey of European history from 1517-1648 with emphasis on the western monarchies, the Netherlands, and Germany. The relationship between the Renaissance and the Reformation; the Reformation as a social, economic, and political, as well as religious mgvement; the religious wars. Prerequiiste: His 131.

## VHis 348 England in the 18th Century (3)

English society and government under the first three Georges; Augustan culture; the impact of the French Revolution on England; the transition to Victorian times.
Himens history of Canada (3) Doleote $12 / 77$
 Inter-Ameximerctions, economic and social ty the search for nywina culture and identity. Manio $4 / 24 / 77$
His 449 The French Revolution and Napoleon (3)
A study of the French Revolution, its causes, events, and aftermath in the Napoleonic period. Attention will be given to the basic European economic, social, political, and cultural forces in the period from the late 18th century to 1815 as they relate to the Fitench Revolution. Prerequisite: His 131.
 Fixst session: Roman, Gothic, and Moslem Iberia; the emergehte of Portugal and the unification of Spain; Iberian overseas expansion; the age of the Hapsburgs. Second session: The Enlightenment in Iberia; revolutions and the loss of Empires; the Iberian nations in the 19th and 20th centuries. Either session may be taken without the other.

## His $3 \sqrt{2}$ History of Austria (3)

Austrian history from the time of Carolingian settlement to the Second Republic. Particular attention will be paid to territorial growth, nationality problems, and cultural development.
Prerequisite: His 131.

A survey of the history of the Italian peninsula from the collapse of the Roman Empire to the present. Economic, social, and cultural topics will be stressed within the framework of political development. The first session will include the period from late Roman time until the establishment of Spanish hegemony (1559), and the second session succeeding eras. Prerequisite: His 131.

His 456 a Diplomatic History of Europe, 1871-1933 (3)
A study of European international politics in the age of imperialism; European alignments and alliances in the late 19th century; the coming of World War I and wartime diplomacy; the postwar settlement, the League of Nations, and the failure of collective security.

## His 456 b Diplomatic History of Europe Since 1933 (3)

The origins of World War II; wartime diplomacy and the origins of the Cold War; postwar European security problems; the diplomacy of European integration.

His 45 Social and Economic History of Europe, 1760-1914 (3)
The transition from pre-industrial to industrial society in England $\int \begin{aligned} & \text { and Europe } \\ & \text { His } 3 / 720\end{aligned}$

His ${ }^{36} \boldsymbol{4}_{8}$ a The Byzantine Epmire, 300-1453 (3)
A survey of the domestic history and foreign relations of Byzantium, from Constantinople to the Turks. Prerequisite: His 131 or consent of instructor.
3 20012172
His 40 b The Balkans Under Ottoman Rule (3)
The domestic and foreign affairs of the Ottoman Empire in Europe from the entrance of the Turks into Europe to the outbreak of World War I. Prerequisite: His 131 or consent of instructor.
His 53 a and b 12172 European Cultural and Intellectual History ( 3,3 )
Major developments in European thought, art, and letters, and the relation of these to the social and economic conditions of their times. The first session examines development from the Renaissance to the Enlightenment; the second session continues on to the present. Either session may be taken without the other.
$\dot{F}$ or description, see listing under Concentration in European History.
His 481 Colloquium in European History (3)
His 484 Colloquium in Approaches to History (3)
His 485 Colyoquium in Comparative and Cross Cultural History (3)
His 460 Histofy of Nationalism (3)
The nature and development of nationalism; a study of the meaning of nationalism, nationalist theorists, nationalist leaders, and
nationalist movements from the 18th century to the present.
His 497 Independent Study in History (2-4)
His 498 Introduction to Historical Research (3)

## CONCENTRATION IN IBERO-AMERICAN HISTORY

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The European and the native foundations of Latin American institutionswand culture; the discovery, exploration, and conquest of America by theerspanish and Portuguese; the Colonigl empires; the Wars of Independence.
His 366 b Latin American' History, Since 1825 (3)
$12 / 77$
The political, ecofiomic, social and "cultural evolution of the Latin Americar Republics from independence to the present, with emphasiswor Mexico, Argentina, and Brazil. Prerequisitem Mis 366 a or junior standing
/His 450 a and b History of Spain and Portugal (3, 3)
For description, see listing under Concentration in European Hjstory.
Mis 469 History of Mexico (3)
Mexican civilization from its origins to the present: The Indian cultures; the Conquest, the Colonial Period, and the winning of independence. Mexico since independence: the eras of Santa Anna, Benito Jaurez, and Profirio Diaz; revolution and reform in the 20th century; current social and economic problems; Mexican-American relations. Prerequisite: His 366 a and b or consent of instructor.
$\sqrt{\text { His }} 472$ History of Brazil (3)
The development of Latin America's largest nation from dis-covery-to-the-present--Prerequisites:-His-366-a-and b-or-consent of instructor.

For descriptions of the following colloquia, see the listing under Concentration in United States History.

His 482 Colloquium in Latin American History ( 3
Hijs 484 Colloquium in Approaches to History (3)
His 485 Colloquium in Comparative and Cross Cultural Hisory (3)
VHis 497 Independent Study in History (3-6)
$\sqrt{ }$ His 498 Introduction to Historical Research (3)
CONCENTRATION-IN ASIAN-HISTORY
Vis 356 The World at War, 1939-45 (3)
$\downarrow$ For description, see listing under Concentration in European History.
His 377 a and b History of South Asian Civilization (3, 3)
First session: The development of the unique civilization of the Indian subcontinent and the impact on it of invading peoples, through the Muslim period. Second session: Study of South Asia from the 18th century, with emphasis upon changes brought about by British rule and by modernization; the creation of new nation states. Either session may be taken without the other.

His 379 a and b History of China (3, 3)
First session: A topical study of Chinese history from historic times to 1644 with particular emphasis on political, economic, and social developments. Second session: A topical study of modern Chinese history with emphasis on the strengths and weaknesses of the traditional state and the solutions which the Chinese developed in response to foreign aggression and internal disintegration. Either及ession may be taken without the other.
His 380 History of Modern Japan 1868-1952 (3)
A problem approach to modern Japanese history, analyzing the fature of the pre-modern state and its subsequent transformation.
His 382 a and b History of the Middle East (3,3)
First session: Mohammed, Islam as a religion and a way of life; the Umayyad, Abbasid, Byzantine, and Persian Empires, and the Ottoman Empire to 1789. Second session: The Ottomon Empire in the 19th century; European imperialism in the Middle East; the rise of nationalism; the World Wars; current political, social and economic problems. Either session may be taken without the other.

His 458 a The Byzantine Empire 300-1453 (3)
For description, see listing under Concentration in European History.

For descriptions of the following courses, see the listings frader Concentration in United States History.

## His 483 Colloquium in Non-Western History (3)

His 484 Colloquium in Approaches to History (3)
His 485 Colloquium in Comparative and Cross Cultural History (3)
His 497 Independent Study in History (3-6)
His 498 Introduction to Historical Research (3)

## CENTER FOR INTER-AMERICAN STUDIES

FACULTY: (Inter-departmental) Hispanic Studies: A. Baker, A. Brakel, A. Carlos, F. Carrino, R. Castagnino, S. Schyfter; Anthropology: L. Campbell, R. Carmack, P. Furst, B. Isbell, D. Snow, D. Wallace; History: J. Hahner, B. Solnick; Geography: S. Blount; Philosophy: W. Reese; Political Science: A. Astiz; Sociology: A. Iwanska; Puerto Rican Studies: E. Acosta, E. Christensen, J. Irizarry, J. Silén.

The objective of this program is to prepare candidates for: (1) professional and research careers in the Latin American field, (2) domestic service with federal and state governmental agencies, (3) careers in the Foreign Service of the United States, and (4) careers with business and
educational organizations engaged in developing, improving and promoting the economic, social, and political life of the Latin American peoples. Upon completion of the program requirements, candidates should possess a more-than-basic knowledge of the major cultural, social, economic, and historical forces that have shaped and continued to shape the destinies of the Latin Americans.

## Special Programs or Opportunities:

Study-abroad programs are available to qualified candidates in Cuernavaca and Guadalajara, Mexico, and in Medellín, Colombia. All Inter-American Studies degree candidates are encouraged to take the Foreign Service Examination given each year in early December.

The Center for Inter-American Studies collaborates with the Office of International Programs in offering studyabroad opportunities at the University of Guadalajara and at the CALE center (Centro de Artes $y$ Lenguas) in Cuernavaca, Mexico. Programs also are available in Medellín, Colombia, in the humanities, social sciences, education, health and management.

The program at Guadalajara, of one or two terms duration, was initiated in the fall of 1967 and is based at the Albany campus. Students enrolled in the Guadalajara program are required to take an academic leave of absence from their home campus, since the program is no longer financed by SUNY. A major prerequisite for this program is a good command of oral and written Spanish. The program at CALE, of one session duration, was initiated in 1971 and is administered through the Brockport campus. Students participating in this program need not have a prior knowledge of Spanish, since most courses are offered in English and intensive ${ }^{-}$Spanish language instruction is available at all proficiency levels. The Medellín program, administered through the Stony Brook campus and initiated in 1974, also may be of one or two sessions duration. Students with a good command of oral and written Spanish may avail themselves of course work at a consortium of five universities; University of Antioquia, National University (branch unit), Universidad Pontificia Bolivariana, University of Medellín and the Escuela de Administración y Finanzas e Instituto Tecnológico.

These study-abroad programs have a two-fold purpose: 1) to provide an opportunity for qualified students to immerse themselves in a culture different from their own, and 2) to enable students to pursue academic programs within their fields of interest. Students who can best profit from these programs are those who possess a high degree of self-confidence and self-direction and, at the same time, are tolerant of an ethnological and academic setting considerably different from their own. These programs are not for students who expect to find the same conveniences, academic resources, organizational patterns and professional competencies available to them on their home campuses.

The total costs for the programs are approximately the same as or slightly more than one would pay for a session or year of study living on campus.

Brochures and application forms for these programs may be obtained by contacting the Office of International Programs, SS 322, State University of New York at Albany.

## Degree Requirements for the Major in-Inter-American-Studies*

## General Program

B.A.: with Spanish emphasis: Combined major and sec-ond-field sequence in Inter-American Studies to include 27 credits of Spanish above Spn 102 b as advised, Por 101 a-b, and Ias 400.18 credits of area studies to include: His $100 \mathrm{a}-\mathrm{b}$ or His $131 \mathrm{a}-\mathrm{b}$, His $366 \mathrm{a}-\mathrm{b}$, three additional credits of Latin American History as advised, and three credits as advised from related courses in social sciences or philosophy.
B.A.: with History emphasis: Combined major and sec-ond-field sequence in Inter-American Studies to include: His $100 \mathrm{a}-\mathrm{b}$, or $131 \mathrm{a}-\mathrm{b}, 366 \mathrm{a}-\mathrm{b}$, and 12 additional credits of History relating to Latin America as advised; three credits as advised from courses in the Social Sciences or Philosophy dealing with Latin America; Ias 400, seven credits of intermediate and advanced conversational Spanish, Spn 316 a-b, Spn 317, and Por 101 a-b.

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## Other Degree Requirements

Majors are encouraged to participate in at least one term of study abroad at a Latin American university or appropriate study center.

## las 400_(Prs 400) Current Latin American Ideas (3)

Political, economic, and cultural forces which tend to shape Latin American life and society. A central theme will be selected for each semester's work. Students are expected to read fiction and nonfiction materials in Spanish. Prerequisite: consent of instructor.

All other courses focusing on Latin America are listed in the Departments of Hispanic and Italian Studies, History, Anthropology, Sociology, Philosophy, Puerto Rican Studies, Economics, and Political Science.

## DEPARTMENT OF JUDAIC STUDIES

FACULTY: J. Eckstein, S. Isser, S. D. Temkin, A. Yuter.
The objective of this department is to transmit knowledge and encourage study of the Jewish people and culture. Toward that end, the department provides instruction in the Hebrew and Yiddish languages and courses in the eontemporary-and-past-aspeets-of-Jewish-History, Bible Studies, Jewish Philosophy, and Hebrew and Yiddish Literature.

To accomplish its objectives, the department offers a full program leading to a major in Judaic Studies.

## Special Programs or Opportunities

The State University system has entered into arrangements with the Hebrew University and Tel-Aviv University for students who desire to spend an academic year studying in Israel, and credits toward the major in Judaic Studies will be awarded for suitable courses. This program is -administered from-the Albany- campus and available-for majors and non-majors alike.

## Degree Requirements for the Major in Judaic Studies

## General Program

B.A.: The plan of study involves a combined major and second field, 54 credits minimum. These are to be distributed as follows:

## Modern Hebrew Language and Literature

Competence to the third year level, usually in the form of at least 12 credits above Heb 101 a and b: Heb 201 (3), Heb 202 (3), Heb 307 (3), and one course (3) from among Heb 308, Heb 365, or Heb 366. Students beginning at the 100 level may apply Heb 101 a and/or Heb 101 b to the elective requirement.

## Judaic Life and Thought

24 -credits-as follows: Jst-150-(3) to be taken-as early-as possible, preferably in the freshman or sophomore year; two courses (6) in Jewish History from among Jst 341., Jst 342, Jst 343, or Jst 344; five courses (15) in Bible, Jewish Literature, and Philosophy-at least one in each area.

## Electives

18 credits, of which at least 9 must be in 300 - or 400 level courses. Of these advanced courses, at least 6 credits must be in one of the following areas as advised: Hebrew Language, Literature, Bible, History, Philosophy.

Hebrew

## Heb 101 a and b Elementary Hebrew $(4,4)$

Beginner's course with audio-lingual approach; fundamentals of language structure and sounds; emphasis on correct pronunciation and oral expressions; graded readings. Classes meet four times per week, plus two required periods in the language laboratory. For beginners and those who have had only one year of Hebrew on the pre-college level. Students may enter Heb 101 b with consent of department. Heb 101 a and b are now offered only as TV courses.

Modern Hebrew readings; review of grammar, composition, and conversation. Prerequisite: Heb 101 b or two years of pre-college level Hebrew.

## Heb 203 Biblical Hebrew (3)

Methods and research tools of modern Bible study. Grammar and syntax of classical Hebrew for students familiar with modern Hebrew. Prerequisites: Hebrew 101 a and b.
Heb 290 The Pentateuch (220) (3)
This course will critically analyze selected texts in the original. The emphasis will be on the structure, style, placement, and authenticity of each of these texts. Old and modern commentaries will be utilized and discussed. Prerequisites: Heb 202 or 203, and Jst 280.

Heb 307 Hebrew Composition and Conversation (3)
Intensive and extensive composition and conversation based on a variety of modern Hebrew texts. Study of the structure of the language and practice in speaking and writing with clarity and precision. Prerequisite: Heb 202 or three years of pre-college level febrew.
Heb 308 Advanced Conversation and Composition (3)
Continuation of Hebrew 307. Prerequisite: Hebrew 307.

## Heb 365 Introduction to Contemporary Hebrew Literature (3)

Textual exposition of readings selected according to genre with an introduction to methods of literary analysis and its terminology. Prerequisite: Heb 202, or 4 years of pre-college level Hebrew.
Heb 366 The Literature of the Hebrew Renaissance (380) (3)
Readings in the original and discussion of the works of Mendele, Feierberg, Brenner, Bialik and Tschernichovsky; their significance in the development of the modern Hebrew language and in the relfirth of Hebrew literature. Prerequisite: Heb 307.
Heb 391 The Three Major Prophets (321) (3)
A critical analysis and reading of selected texts in the original from the books of Isaiah, Jeremiah and Ezekiel. The emphasis will be on the structure, style, placement and authenticity of each of these texts. Leading ideas and concepts will be discussed. Pferequisites: Heb 202 or 203, and Jst 281.
Heb 431 Philosophic Aspects of the Talmud (3)
Selected texts of the Talmud will be studied in the original. Special-emphasis will be placed on philosophtc issues, but scientific and social scientific views will also be examined. Prerequistes: Jsf 325 and Heb 307.
Heb 499 Topics in Hebrew Language and Literature (3)
Examination of specific linguistic or literary aspects of Hebrew, e.g., studies of Hebrew philology, or poetry and prose readings on major motifs in Hebrew literature. The course may be taken more than once if different topics are examined. Prerequisite: consent of instructor.

## Yiddish

## Yid 101 a and b Elmentary Yiddish (4, 4)

Beginner's course in Yiddish: fundamentals of language structure and sounds; emphasis on pronunciation and oral expression; and graded readings. -Clāsses meèt fōur timēs pē week, plus requixed homework periods in the language laboratory. Students may enter Yid 101 b with the consent of the department chairman.
Yid 102 a Intermediate Yiddish (3)
Some modern Yiddish readings, and a review of Yiddish grammar, composition, and conversation. Prerequisite: Yid 101 b .
Yifd 102 b Intermediate Yiddish (3)
Readings in Yiddish literature, with an emphasis on the modern period and a minimum of grammatical explanation. Prerequisite: Yid 102 a.

## Judaic Studies

## $\sqrt{ }$ Jst 150 Survey of Jewish Civilization (3)

A basic orientation into the Jewish tradition from the Biblical period to the present. The history and philosophy of Jewish culture and religion will be emphasized. This course is required for Jst majors and is recommended preparation for other Jst courses in history and philosophy.

Jst 171 (Cwl 171) Modern Yiddish Literature in Translation (3)
A survey of Jewish literature from the 18th century to the present.
Jst_172 (Cwl_172) Modern_Hebrew_Literature-in-Translation (3)
A survey of Hebrew literature, from the 18th century to the present.

Jst 180 The Hebrew Bible, A Survey (Pentateuch, Prophets, Writings) (170) (3)
A survey of the Hebrew scriptures considered in terms of their literary, historical, sociological, and religious contents and settings. The course is given in English.

Jst 280 Introduction to The Pentateuch (174) (3)
A general introduction to The Five Books of Moses (in English), considered against a background of religious, social and philosophical aspects. The significance of the Torah in the development of JJudaic civilization will be studied.

Jst 281 Introduction to The Prophets (203) (3)
A survey course discussing the Prophets in general (in English), emphasizing the moral and social role of the individual Prophet and his impact upon Judaism and Western civilization.

An analytical and descriptive survey of the literary, theological, liturgical, philosophical productions of the Spanish and Portuguese Jews from the Middle Ages to the middle of the 16th century. Taught in English, some reading knowledge of Iberian languages and Hebrew helpful.

Jst 314 b (Spn/Cwl 314 b) Literature of the Spanish-Portuguese Jews and New Christians (3)
The ex-Marrano and Converso contribution to the history of European thought (Isaac de la Pereyre; Samuel Usque; Isaac Cardoso; Menasseh Ben Israel; Isaac Orobio de Castro; Uriel da Costa; Spinoza). Taught in English, some reading knowledge of Iberian languages helpful.

Jst 325 Talmudic Thought: An Iniroductory Analysis (360) (3)
One tractate of the Talmud will be studied in English translation. Special emphasis will be placed on philosophic issues, but scientific and social scientific views will also be examined.

Jot 326 Studies in an Individual Judaic Philosopher (340) (3)
The philosopher studied is selected on the basis of faculty and student interest. The course may be taken more than once if a different philosopher's work is examined. Consult fall and spring schedules for specific philosopher analzed.
/ss
dst 330 American Jewish Philosophy (3)
A survey of Jewish Philosophy as it has developed in the 20th century in the United States.
$\checkmark$ Sst $33^{2}$ The Holocaust in Christian an ad Jewish Theology (3)
The philosophies of the 20th century European Judaic existentialists will be examined. Particular emphasis will be placed on the writings of Shestov, Rosenzweig and Buber.

Jst-338-Modern-Jewish-Religious-and-Eopular_Thought-(3)

Jot 339 Medieval Jewish Philosophy (3)
A survey of Jewish Philosophy in the Middle Ages.
dst 341 Early Israel and Biblical Civilization (200) (3)
The history and culture of ancient Israel from its beginnings to the Persian Empire. A survey of the Hebrew Bible (in English) as the major source for the study of early Judaic religious and social forms in the context of the Near East.
dst 342 Hellenistic-Rabbinic Period of Jewish History (201) (3)
The Jewish people under Greek, Roman, and Persian domination from the time of Alexander the Great until the decline of the ancient world. Judea and the diaspora, cultural conflict and adapaion, sectarianism, and the development of rabbinic thought and institutions.

Jat 343 The Medieval Period of Jewish History (300) (3)
The history of the exilic community from the Islamic period to the Enlightenment.

Jat 344 The Modern Period of Jewish History (301) (3)
The history of the Jews from the Enlightenment to the present. $\checkmark$
Jest 351 Development of a Particular Jewish Community (302) (3)
The history-of the -Jew s-in -a -particular-place -(region, country, city), to be specified, from the time of their settlement, indicating the broader influences at work and comparing similar experiences elsewhere. This course can be taken more than once if different communities are examined.

Sst 352 Development of the American Jewish Community (303) (3)
A survey of the development of the American Jewish community from the early settlement of Jews in the Americas through the contemporary era. Particular emphasis will be placed on a social analysis of the Jewish community.

## Jst 353 Development of Israell Society (304) (3)

A survey of the history of Israeli society from the development of the Jewish communities in Ottoman and Mandatory Palestine through the Zionist movement and the State of Israel from 1948 to the present.

Jst 359 (Pos 359) Israeli Politics (3) \}
Same as Pos 359.
Jst 370 (Cwl 370) Talmudic and Medieval Jewish Literature in Translation (3)
Selections from post-biblical and medieval literature.
Jst 373 (Cwl 373) The Literature of the Holocaust in Translation (3)
Readings in translation and discussion of memoirs, diaries, fiction, and poetry written originally in Hebrew, Yiddish, and other languages, reflecting the ordeal of European Jewry during the Second World War.

Jst 375 (Cwl 375) Israeli Literature in English Translation (3)
Selected prose and poetry of contemporary Israeli writers such as Agnon, Alterman, and Shamir, chosen not only for their importance in the development of modern Hebrew literature, but also for their treatment of universal concepts and values.

## Jst 376 (Cwl 376) Studies in an Individual Judaic Writer (3)

The writer studied (in English) is selected on the basis of faculty and student interest. The course may be taken more than once if a different writer's work is examined. Consult fall and spring schedules for specific writer analyzed.

Jst 381 The Book of Job and the Problem of Evil (306) (3)
The Book of Job (in English) and its role in ancient and contemporary Western and Jewish literature and thought.

Jst 430 Maimonides and Spinoza (3)
An analysis of the philosophies of Maimonides and Spinoza, and an examination of the influence of the former on the latter.
Prerequisite: Consent of instructor.
Jst 444 Zionism from Herzl to the State of Israel (3)
A discussion of the factors stimulating Jewish nationalism before Herzl. The founding of the World Zionist Organization (1897)its activities, problems and ideologies up to 1914. Developments, political and practical, in Europe, America and Palestine, during World War I, between the wars, World War II, and the post-war settlement. Prerequisite: Jst 344.

## Jst 445 Post-Holocaust Jewish World (3)

Jewish population-numbers and distribution-before and after World War II, including changes through destruction and migration. Forces working for assimilation and integration; organization of Jewish communities, the State of Israel and its relations with the diaspora. Prerequisite: Jst 344.

Jst 465 (Ant 465) Jewish Communities (3)
Same as Ant 465.
Jst 497 a and b Independent Study in Judaic Studies (3-6), (3-6)
Directed reading and conferences on selected topics in Judaic Studjes.

J3t 499 Topics in Judaic Studies (3)
A study in depth of selected topics in Jewish history, philosophy, literature, or Bible. The course may be taken more than once if different topics are examined. Prerequisite: consent of instructor. When the following course deals for the entire session with American Jewish Literature it can be used for credit in Judaic Studies: Eng 396 Literature of a Subculture

## LINGUISTICS PROGRAM



## (Interdisciplinary)

FACULTY: S. Barlau, C. A. Brakel, L. Campbell, S. Davis, M. Finder, F. Frank, G. Hastings, R. Light, R. Thorstensen, M. Williams.

The associate faculty includes additional faculty members from the College of Arts and Sciences and the School of Education who regularly teach courses related to linguistics in their own departments and occasionally teach a course in the linguistics program.

The Linguistics Program provides a faculty-initiated interdisciplinary major with a concentration in linguistics. It is designed to provide students with a basic understanding of the nature of human language and the principles and methods of contemporary linguistic theories. The major offers a liberal education which combines the approaches of the humanities, the social sciences, and the sciences. It also provides appropriate preparation for those interested in pursuing graduate work in linguistics or related disciplines.

## Special Programs or Opportunities:

The possibility of studying a foreign language not regularly taught at State University of New York at Albany is provided by Lin 289, Directed Study in Foreign Languages. This course is open to any undergraduate student in the university. For more information, see the course description below.

## Degree Requirements for the Interdisciplinary Major with a Concentration in Linguistics

## General Program

B.A.: 36 credits in the major field of study, including: $\operatorname{Lin} 206, \operatorname{Lin} 320, \operatorname{Lin} 321$, Lin 499; one year of a foreign language, as advised;* additional credits, as advised, including a minimum of six credits at the 300 level or above; these are to be chosen from courses offered in the linguistics program and from approved courses in other departments. (A list of approved courses is available from the director of the linguistics program.)

## Other Degree Requirements

Language proficiency requirement: majors are expected to demonstrate proficiency in a foreign language (other than the language chosen to fulfill the one-year requirement). Proficiency is considered as equivalent to completion of the third year of skill courses in a foreign language or the passing of the appropriate proficiency examination. Credits earned for the proficiency requirement are additional to the 36 credit requirement described above.
Students-are-eneouraged-to-eomplete-a-seeend-major rather than a second field. This is facilitated by the flexibility of the requirements. Where appropriate, certain courses may be used to fulfill requirements in both majors.

## Lin 206 (Ant 220/Eng 206) Introduction to Linguistics (3)

Introduction to the study of language, including examination of the characteristics and structural principles of natural languages with English as the prime example; survey of subdisciplines of linguistics, such as historical linguistics and the comparative method, psycholinguistics, sociolinguistics, dialectology, and animal communication.

## Lin 289 Directed Study in Foreign Language (4)

Study of a foreign language not regularly taught at SUNYA; independent work, with the guidance of a faculty member, using recordings and other material; meetings with native speakers when possible. A limited number of languages may be offered in any one

[^10]year. May be repeated, for a different language or for more advance study in the same language. Prerequisite: consent of program director.
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Lin 320 (Ant 320) Phonology (3)
Antintrodrection to the analysiseman sound systems, including study of the classical phoneme and distinctive feature analysis. Prerequisite: $\operatorname{Lin}_{2} 206$ ar cogserimoninstructor
Lin 321 (Ant 321) Morphology and Syntax (3)


The analysis and description of the grammatical systems of languages; various current linguistic approaches will be included. Prerequisite: Lin 206 or consent of instructor.
Lin 421 (Ant 421) Syntax and Semantics (3)
A survey of formal approaches to language such as transformatonal grammars, generative semantics, cognitive linguistics, and montague grammar, with special emphasis on recent developments in syntax and semantics. Prerequisite: Lin 321.

## Lin 497 Independent Study in Linguistics (1-6)

Independent reading or research on a selected topic in linguistics, under the direction of a faculty member. Normally taken for three credits, but if the nature of the project warrants it, as many as six credits may be earned in one session; may be taken a second time, with approval, for a maximum total of 12 credits. Prerequisite: major or second field in linguistics, consent of instructor and director of linguistics program.

## Lin 499 Seminar on Topics in Linguistics (3)

Seminar on selected topics in linguistic theory and methodology, chosen on the basis of current interest; may be repeated for credit with change of topic. Prerequisite: consent of instructor.

Courses in other departments approved for the linguistics major. (Some of these courses may have prerequisites within the departments offering them.)

Ant 325, Ant 424, Csi 201, Csi 202, Eng 306, Fre 306, Fre 406, Fre 450 a, Ger 400, Phi 210, Phi 415, Phi 432, Rio 265, Roo 362, Rus 303, Sau 201, Sou 202, Sau 210, Sou 440, Soc 460, Jpn 305, Spin 402, Jpn 405.

## DEPARTMENT OF MATHEMATICS

FACULTY: G. Allaud, L. Brickman, H. Brown, C. Chen, L. Childs, V. Cowling, E. Davis, M. Ellis, N. Friedman, R. Goldstein, H. Gordon, W. Haboush, R. Hall, W. Hammond, R. Hornblower, B. Jamison, J. Jenkins, M. Katz, T. Lance, V. Larney, L. Lininger, R. Luippold, T. MacGregor, G. Mangano, G. Martin, J. Myers, R. Nirenberg, E. Nussbaum, H. Ogawa, R. O'Neil, G. Pecelli, R. Regal, R. Rupp, M. Sherman, M. Smiley, H. Stratton, J. Therrien, E. Thomas, E. Turner, N. Uy, D. Wilken.

The obective of the Department of Mathematics is primarily to serve the needs of those students aspiring to careers which require mathematical background: physical, biological, social and management sciences, statistics, actuarial work, computer science, applied mathematics, secondary school teaching, graduate work and research in mathematics.

The department also welcomes students who feel the need for studying mathematics as part of a traditional liberal arts program.

## Degree-Requirements for the-Major-in-Mathematics

## General Program

B.A.: All mathematics majors are required to take a total of 33 credits of mathematics courses numbered 110 or above, of which 12 credits must be of the 300 level or above. All majors are required to take $112,113,212$, and 213. (Mat 212 and Mat 213 replace the former required courses: Mat 214 and Mat 220.) Mathematics majors in the Teacher Education program are required to take a course numbered 300 or above in each of the four areas: algebra, analysis, geometry/topology, and probability/statistics. For the B.S. degree, the second field must be in the natural sciences, computer science or business.

## Honors Program

The Honors Program requires a minimum of 33 credits of mathematics courses, including calculus and linear algebra, and, additionally, at least six credits selected from

Advanced Calculus (411), Algebra (420), Differential Topology (440), Probability Theory (464), junior-senior semimars, independent study and introductory graduate courses. The student works in consultation with a member of the Department Honors Committee to design a program suited to the student's individual needs. This program and the student's overall progress will be periodically evaluated by the Department Honors Committee.

## Departmental Program

The departmental program is open to mathematics major in the General and Teacher Education Programs for the B.A. and B.S. degrees. No second field is required. A student may have a second field or "second major if desired. Students may enter the program any time prior to their junior year, and receive an adviser from the mathematics faculty. The specific programs,, will be arranged with the adviser.
Mat 100 Elements of Mathematics (3) mope
Review of basic algebra; linear, quadratic, expontial, and logarithmic functions; cartesian coordinates and graphing; trigonometric functions, finite series. Prerequisite: Elementary algebra and plane geometry.

## Mat 102 Fundamentals of Modern Mathematics (3)

A nontechnical view of topics in mathematics. The topics discussed will be selected $九$ according to the interests of the class and instructor from among: the history of mathematical ideas, modern mathematical ideas from the layman's viewpoint mathematics in the -social sciences, theory of games, and logic. Prerequisite: Mat 100 o in Mat 11 from high school.
Mat 105 Finite Mathematics (3) Leu deocrep $v$ preros Arrintroduction to topiesson-minterest tomstudentswof the sod al sciences; partitions and/counting, probability, vectors and matrices, theory of games. Not open to mathematics majors or to students with credit_in_quantitative methods courses in the Social" Sciences. P e requisite Mat 100 orequivalente-thereof.

## Mat 106 Elementary Calculus (3)

An intuitive approach to differentiation and integration of algebrain and transcendental functions with emphasis on applications. May not be taken for credit by students with credit in Mat 107 or Mat 112. Prerequisite: Mat -100 oryplacement-by-examination fo Fane geom, Duke. ald +7 rob. ionafloo.
Mat 107 Applications-of Calculus to iefoplemoin Business and

cations of differential and integral calculus to the analysis

## mAT 112 s calculus I (1) $12 / 77$ memo $3 / 3 / 22$ Descript. Memo $3 / 31 / 77$

taxation, profits, inventory control, capital budgeting, producer ${ }^{3}$ s and consumer's surplus. May not be taken for credit by students with credit for Mat 106 or Mat 112. Prerequisite: Mat 100 orplarement. by examination. Plane geom at Intent. 0 gie Ga, of mario.

## Mat 108 Elementary Statistics (3)

Frequency distributions, measures of central tendency and dispersion, probability and sampling, estimation, testing of hypotheses, linear regression and correlation. Prerequisite: Mat 100 or intermediate algebra.

## Mat 109 Applied Matrix Algebra (3)

Matrix algebra as applied to solving systems of linear equations, Markov-chains,-linear programming. Calculations and applications fill be emphasized rather than theory. Prerequisite:dMat 100 onus fumpalents.

## Mat 112 Calculus I



Calculus of one variable: limits, continuity, differentiation of rational functions, the definite integral, logarithmic and exponential


Mat 113 Calculus II (4)
Continuation of Calculus I; the conic, trigonometric functions, techniques of integration, sequences, and series. Prerequisite:



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Mat 116 a and $b$ Calculus $(5,5)$ cf two Soc of tel frexexurate:
Añaccelerated course covering all material covered in Mat 112, 113, and 214. Prerequisite: Consent of the department; 116 a is prerequisite for 116 b .

## Mat 117 Applications of Computing to Calculus I (1)

Introduction to the BASIC programming language. Numerical solution of problems from Calculus I. Corequisite: Mat 112 or consent of instructor.

## Mat 118 Applications of Computing to Calculus II (1)

Introduction to the BASIC programming language. Numerical solution of problems from Calculus II. Corequisite: Mat 113 or consent of instructor. Mat 117 is not a prerequisite for Mat 118.
Mat 208 Topics in Statistical Inference (3)
Various statistical techniques such as $x^{2}$-tests, multiple regression and correlation, non-parametric statistics and the analysis of yariance as applied to physical, biological and social sciences. Prerequisite: Mat 108
Mat 212 Multivariate Mathematics I (4)
$121+2$
Introduction to linear algebra, functions of several variables and differential equations. Will include partial differentiation and multiple integration. Prerequisites: Mat 12 remand 113.

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Continuation of Mat 212. Further topics in linear algebra, linear and first order systems of differential equations, vector field theory. Prerequisite: Mat $212{ }^{6}$ rrequryalenter Notopen tostode ext w
Mat 214
Calculus in (4)

Multivariaffive calculus:-Solid analytic geometry, partial differenttiation, multiple integration. Prerequisite: Mat 113.

## Mat 220 Linear Algebra (3)

Theory of finite-dimensional vector spaces, linear dependence and dimension, linear mappings, linear equations, matrices and determinants. Euclidean spaces. Normally taken at the completion $12 / 77$ of the calculus sequence.
Mat $2 \Sigma$ Linear Agebrocuad Differential Equictuvo (4) A
The natural mumberserand mathematiobllwhuction $\frac{2}{}$ factorization and divisibility for integers and polynomials; the complex numbers hew. and applications of the Fundariental Theorem-of Algebra. May not lecce be taken by students with credit in Mat 326. Recommended for

Mat 231 Transformation Geometry (3)


Classical theorems of Menelaus, Leva, Desargues and Pappus. Isometries, similarities and affine transformations for Euclidean geometry. Prerequisite: Mat 212.
Mat-299-Independent Study in Mathematics (1-3) Menteleotir May-be-mepeated-fox-eredit.
Mat 301 Theory of Interest (B) $(\backslash)$
The basic measures of interest, annuities, sinking funds, amortization schedules, bonds and installment loans. Prerequisite: Mat 172 ard Mat 113. xewirocryp shf $12.77(3)$

## Wat 311 Topics in Differential Equations (3)

Series solutions, special functions of mathematical physics, introduction to qualitative theory. Further selected topics. Not open to students with credit for Mat 310. Prerequisite: Mat 213 or Mat 223
$\sqrt{ }$ Mat 312 Basic Analysis (3) Lew clock v pun oo \&ffirf7?
Functions", real numbers,:eontinuityzunifomm dontinuitys uniform

- convergence, interchange -of order of limit operators. Prerequisite: calculus. sequence and linear. algebra.
Mat 320 Elementary Abstract Algebra (3) Newdeocip vples. The -integers, groups, rings, fields, polynomials. Prerequisite ' calcults sequence and linear algebra.

Mat 332 Foundations of Geometry (3)
Fed Axiomatic development of absolute geometry, theory of parallels, introduction to non-Euclidean geometry, isometries of the Bolyai(Lobacfieysky plane. Prerequisites: Mat 213 or Mat 8 gk a mind - Materiel.

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## Mat 333 Convex Geometry (3)

An introduction to geometric ideas in Euclidean n-space with emphasis on the notion of convexity. Topics are selected from the following: basic properties of convex bodies, Helly's theorem, geometric extremal problems, Minkowski geometry, geometry of numbers, packing and covering theorems, and integral geometry. Prerequisite: onecyeax-of-oalculus. Mat $\|$ S.
Mat 342 Elementary Topology (3) "Newideonjo i pren.i2(77?)
Point-set-topology, metric spaces. Prerequisites: calculus sequence and linear-algebra:

## Mat 350 Elementary Set Theory (3)

Sēts and maps, construction of real and complex numbers, essentials of cardinal and ordinal arithmetic.

Mat 362 Probability (3)
Introduction to probability theory and random variables. Elementary limit theorems. Prerequisite: Mat 212cor-Mat-214w fff 12.77 ?
Mat 363 Statistics (3)
Hypothesis testing, point estimations confidence intervals. Introdyction to the analysis of variance. Prerequisite: Mat 362.

Probability aned
Actuarial Statistics (1)
Praetice in_statístical_applisations-to-axtuarial scien Prerequisite:-Mat-363-or-taken-concurrently-with-Mat-363.

Mat 372 Elements of Game Theory and Linear Programming_(3)
Fundamental theorem of game theory for two-person zero-sum matrix games. Games in extensive form. Equivalence of linear programming problems to matrix games. Theory and application of the simplex method of solving linear programming problems.
17 Prerequisites: caleulus sequerre and-linear alyebra. Mat 215 mat223.

## Mat 380 Systems Theory (3)

Dynamical behavior of continuous and discrete systems. Observability, stability and transforms. Introduction to feedback control. Prerequisites: Mat-220-and-Mat-310-or-Mat-212 and Mät" 213 . Mat 213 m mat 223 .
Mat 401 a Numerical Analysis (a) (3)
Error analysis, finite differences, interpolation theory with both equal and unequal intervals (formulas of Newton, Gauss, Stirling, Bessel, Everett, Lagrange), theory of summation. Prerequisites: Mat=220madm30-or Mat 212 and Mat 2183 2.23. (add)

## Mat 401 b Numerical Analysis (b) (3)

Approximate differentiation and integration, difference equations, numerical solution of differential equations, iterative techniques, matrix methods, numerical approaches to linear systems of equations Prexequisite: Mat 401 a.

Ladd) Analejois and Theory of finteneot
Mat 402 Actuarial Numierical-Mezthods (1)
Neo practice in numerical-methodstas-used-in-aetuaxial-sciences. de $\alpha$ P Prerequisites - Mat 401 a or-Mat 401 b taken concurrently.

## Mat 403 a Life Contingencies (a) (3)

A treatment of the contingencies of a single life covering the following topics: Mortality functions, life annuities, life insurance functions, annual premiums, net level premium reserves, the expense factor, more complex benefits. Prerequisites: Mat 301 and Mat 362. Lade' \&ff12/77?

## Mat 403 b Life Contingencies (b) (3) Mat $403 a$

Expansion of the theory of tifementingeneson two or more lives in combination and on multiple causes of decrement. Topics include population theory, multi-life statuses, multi-life functions, reversionary annuities, multiple-decrement functions, primary and secondary decrements, applications of multipledecrement functions. Prerequisites: Mat 301 , Mat-362-and-Mat$403 \mathrm{a} . \quad$ Eff 12177 ?

## Mat 409 Vector Analysis (3)

Classical vector analysis presented heuristically and in physical terms. Topics will include the integral theorems of Gauss, Green and Stokes. Prerequisite: Mate 21470r Mat 212.
 Mat 410 Partial Differential Equations for Applications (3)

The partial differential equations of classical mathematical physics. Topics will include boundary and eigenvalue problems, Fourier series and other orthogonal expansions. Prerequisite: Mat Fourier series and other orthogonal expansions. Prerequisite: Mat

 uniform continuity and uniform convergence, integration and differentiation of functions in one and several variables. Prerequisite: Mat 312 or consent of instructor. Mat 411 a is prerequisite for Matu4lelwo

## Mat 412 Complex Variables for Applications (3)

The elementary functions, differentiation, conformal transformatons, power series, integral theorems, Taylor's theorems, Taylor's and Laurent's expansions, application of residues. Prerequisite: eq y $\%$ anduaurequenee. Wat 213 on 0


Group theory, rings, modules, tensor products, field extensions and Galois theory, valuation rings. Prerequisite: Mat 320 or con- $f f$ sent of instructor.
Mat 424 Advanced Linear Algebra (3) Lew cleocyo p ph.
Brieforeview of elementary yminear-algebra, duality, quadratic forms, inner produtuct spaces, and similarity theory of linear transfornations. Prerequisite: mat.. 220 or Mat 213 or consent of instructor $f$

## Mat 425 Number Theory (3)

A shared resource course with Mat. 525 m Divisibility; congruences, 77 quadratic reciprocity, diophantine equations, sums of squares, ? cubes, etc., continued fractions, algebraic integers. May not be taken -by students with credit for Mat 324. Prerequisites: Any 300 level" or higher course in algebra.

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Mat 426 Algebraic Equations and Geometric Constructions (3)
An inquiry into the relationships among ruler and compass constructions, solutions of polynomial equations and the theory of numbers. Prerequisite: one course in algebra or number theory at the 300 -level.

## Mat 432 Advanced Plane Geometry (3)

The advanced Euclidean plane geometry of the triangle and circle. Prerequisites: calculus sequence and linear algebra.

GMat 433 Complex Numbers in Geometry (3)
Complex number systems and their geometric interpretation. Moebius transformations, models of non-Euclidean geometries.
Prerequisite: Mat 332 or consent of instructor.
Mat 440 Differential Topology (3)
Manifolds, differential forms, De Rham's Theorem, duality. Prerequisite: Mat 312 or consent of instructor.

## Mat 441 Introduction to Differential Geometry (3)

An introduction to the geometry of curves and surfaces. Topics include torsion, Frenet formulae, metrics, curvature and classical theorems in these areas. Selected topics from modern differential


## Mat 452 History of Mathematics (3)

History of the development of mathematics, emphasizing the contribution of outstanding men and civilizations. Prerequisces: LVata 13

Mat 456 Foundations of Mathematics (3)
Axiomatics, infinite sets, axiom of choice, Zorn's lemma, ordinal numbers, the continuum, logical calculi. Intuitionism and other viewpoints on foundations. Prerequisites: oaleulusmsequence and Xinear algebra. Mnat 213nmat.223.
Mat 464 a and b Probability Theory $(3,3)$ newodecorkp onen Rigerous treatment of discretemprobabilitymeweory; distybtution theory, xandom walks and flutuation theory, rectrrent events and Markov chains. Prerequisites: calqulus sequence and linear algebra and consent"of instructor. Mat 464 ans prerequistemformat 464 b:

## $a+b$ <br> Hat 465 (Statistical Methods (3), ${ }^{3}$ )

Sampling-theonywegression and coxrelation, principlesmandolasss fication of experimental destgns, randomized and bloek designs analysis of varianee, non-parametric methods. Prerequisite: Mat
$220, \mathrm{Mat} 362$ and consent "of instructor.
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a and b Junior-Senior Analysis Seminar (3, 3
Study of topics in analysis, chosen at the discretion of the instructor. Prerequisite: consent of instructor.

## Mat 482 a and b Junior-Senior Algebra Seminar (3, 3)

Study of topics in algebra, chosen at the discretion of the instructor. Prerequisite: consent of instructor.


FACULTY: R. Albagli, J. Chadabe, A. Ciompi, D. Cobb, R. F. Cockrell, G. R. Ellis, P. Ennis, L. Farrell, M. Fuller, D. Gibson, I. Gilman, N. Gottschalk, K. D. Hartzell, Jr., R. Hester, P. Knott, B. Levy, M. Morgenstern, J. Morris, S. Osmond, K. Peterson, R. Rowe.

The objective of the Department of Music is to provide university students with opportunities to study music as an aspect of a liberal arts education, as knowledgeable listeners or trained participants. The department also provides preparation for graduate studies through broad training in musicanship and practicing the musical arts.

## Degree Requirements for the Major in Music

## General Program

B.A.: 36 credits to be distributed as follows: Mus 245, 246,330 a and $\mathrm{b}, 345,346$, and 14 credits in major music courses. All music majors must include at least 12 credits of courses at the 300 level or above. Explanatory supplement: General Program Music Major students will be accepted on the basis of admission requirements established by the department-tests, written and oral, after the student has been admitted to the university. Performance study may be available for credit by consent of the instructor and chairman.

## Departmental Programs

B.A.: 66 credits to be distributed as follows: Mus 245 , 246,330 a and $b, 345,346,176,177,276,277$ (or proficiency), performing groups, and $32-36$ credits in an area of concentration and related music courses as advised. The program is designed to give students a broad coverage of music study and an opportunity for concentration and intensive study in Composition, Electronic Music, History, Performance or Theory. This program permits a course of
study that will shape each student's individual objective. All music majors must include at least 12 credits of courses at the 300 level or above.

Explanatory supplement: Students accepted into this program must declare an area of concentration-Composition, Electronic Music, History, Performance or Theory.

Admission to this program will be established by the department, tests (written and oral) and performance audition after the student has been admitted to the university.

Major orchestral instrumentalists, and voice majors will be-required to- participate-in symphonic wind ensemble, chorus or orchestra for eight sessions.

Pianists may meet this requirement by four sessions in any ensemble.

Composition, History and Theory majors who achieve a satisfactory performance level may be assigned to Major Performance Study by consent of the instructor and chairman.

Performance majors will be required to take eight sessions of Major Performance Study and to give a satisfactory public recital.

Each student accepted into the Departmental Program in Music_will_be_assigned_to-a music-faculty-adviser.

## General Courses

## Intended for non-majors

Mus 100 Introduction to Music (3)
Understanding the art of music through directed listening emphasizing the many uses of musical material. Using numerous illustrations accenting the criteria which determine quality. Closed to students with credit in Mus 102.

## Mus 102 Masterpieces of Music (2)

Comparative analysis of major works representing different forms, styles, and periods. Approaching the musical elements through the detailed study of a particular masterwork of a significant composer each lecture. Closed to students with credit in Mus 100.
Mus 108 Keyboard Masters (3)
Understanding the art of music through directed listening to compositions written for harpsichord and piano. Examples are taken from the works of significant composers in historical order, starting prith the English virginalists and ending in the mid-20th century.

## Mus 110 Basic Music Theory (3)

Consideration of the rhythmic, melodic, and harmonic elements of music through writing, dictation and analysis of rhythm, modes,
intervals, keys, scales, triads in progression and form. Analysis of a variety of musical styles. Previous musical experience helpful but not necessary. Limited to students who are not music majors.

## Mus 111 Fundamentals of Writing and Performing Music (3)

 Ger 1 music of the lassical twatition and deproular song. Premous musical purience flestrable but required. Limide to students who
 $\sqrt{ }$ Mus 112 See Music Fundamentals Workshop

Creative musical projects assigned at the level of the individual student. Discussion and evaluation of creative work, including that by visiting musicians. Limited enrollment; open only to students foncurrently in Mus 111. Offered during the summer session only.
Mus 201 Musical Instruments (3)
The evolution of musical instruments in western culture. The classifications, acoustical principles, techniques, and contemporary developments, with examples from the literature and orchestration. Mus 205 (105) History of Music (3)

Contributions of the earlier periods of music with their influences on later developments. The study of musical literature, instruments, composers, and performers to the Classic period.
Mus 206 (106) History of Music (3)
The-development-of-musie-from-the-Classic-and-Romantic-periods to the present.

## Mus 207 (202) Composers (3)

Study of representative scores of one composer in regard to form, style and historical contribution. One major composer such as Bach, Mozart, Beethoven, Stravinsky is studied per session. Prerequisites: Mus 110 or Mus 245 or a reading knowledge of music and one of the following: Mus 100, Mus 102, Mus 205, Mus 206, or Mus 208. May be repeated for credit with consent of instructor.

## Mus 208 (107) Introduction to Opera (3)

Defining the medium, its premises and problems, its gradual formation through history and its function as a dramatic art form.
Mus 209 (204) The Solo Song (3)

-     - The-development of both sacred_and_secular vocal literature, including the folk "song, the art song, and the aria. Prerequisite: Mus.100, 205, 206, or 208.
$\sqrt{\text { Mus } 210(205)}$ Survey of Choral Music (3)
Both sacred and secular choral literature, including the oratorio, cantata, Mass, and" ${ }^{\text {other }}$ large choral forms. Prerequisite: Mus 100, 205, 206, or 208.
Mus 211 (206) The Concerto (3)
The development of the concerto grosso and solo concerto from the 17th century: onward. The classical forms and the variations which resulted, Prerequisite: Mus 100, 205, 206, or $245 .{ }^{\prime \prime}$

Mus 212 (207) Chamber Music (3)
The history of the musical literature for the small instrumental ensembles; the trio sonata, the divertimento, the string quartet, and other forms of chamber music. Prerequisite: Mus 100, 205, 206, or 245.

## Mus 213 (208) Survey of Symphonic Music

The study of symphonic literature. The growth of the orchestra, symphonic forms, the major symphonies. Prerequisite: Mus 100, 205,206 , or 245.
Mus 214 (209) American Music (3)
The study of American music from 1620 to the present. Prerequisite: Mus 205 or 206 or consent of instructor.
Mus 215 (210) Jazz (3)
A study of Jazz from its origin to current expression. Important musicians and influences are examined through recorded examples of Blues, Dixieland, Swing, Bop, Progressive Jazz, and Third Stream. Prerequisite: Mus $100,102,110,205$, or 206.
Mus 216 (118) Performing Technique (1)
Coaching of qualified students from the performing ensembles. Development of individual technical proficiency. May be repeated for credit. Prerequisite: consent of instructor.

## Courses Intended for Music Majors Composition

Mus 220 Introduction to Composition (2)
Techniques of musical composition, notational problems, an examination of creative work. Prerequisite: Mus 246 or consent of instructor.
Mus 315 Music and Science: An Interactive Study (3)
A non-technical consideration of structure and design in music and related scientific disciplines. Emphasis will be on methodologies extracted from the sciences for developing non-traditional approaches to music.
Pramequisite consent_of Inastructar.
Mus 320 Composition Seminar I (3)
Evaluation and discussion of individual creative work in instrumental media. Prerequisites: Mus 346 , and consent of instructor.
Mus 321 Composition Seminar II (3)
Evaluation and discussion of individual creative work in instrumental media. Prerequisites: Mus 346, and consent of instructor.
JMus 420 Advanced Compostion Seminar I (3)
Evaluation and discussion of individual creative/work in instrumental media. Prerequisites: Mus 320 and $-2.2$

## Mne322 Electronic Musii SeminarI (3) -mus 323 Electronic Music Seminen $\pi$ (3)

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Mus 421 Advanced Composition Seminar II (3)
Evaluation and discussion of individual creative work in instru-
 four and consent of instructor, Music


Keyboard music from the English virginalists through Haydn and Mozart. Form, styles, performing technique and the development of the instrument. Study based on scores, recordings and performances by students and instructor. Prerequisite: Mus 178 or pianists with consent of instructor.

Mus 236 Keyboard Literature II (2)
Keyboard music from Beethoven and Schubert to the present. Form, styles, recordings and performances by students and instructor. Prerequisite: Mus 178 or pianists with consent of instructor.

## Mus 330 a and b (230 a and b) Music History (3, 3)

An intensive study of the music of western civilization traced from the primitive sources to the present. Prerequisites: Music major and Mus 246 or consent of instructor. Mus 330 a is a prorequisite for Mus 330 b .

From the beginning of the Christian era through Palestrina inclouding chant, medieval song, early polyphony, the motet and allied forms, Ars Nova and the Renaissance, English and continental vocal and instrumental music. Prerequisite: Mus 330 or consent of instructor.
$\sqrt{\text { Mus }} 432$ (332) Music of the Baroque Period (3)
Study of the music of the period, approximately 1600-1750, from the invention of opera through the works of J. S. Bach and Handel. Prerequisite: Mus 330 or consent of instructor.

Mus 433 (333) Music of the Classical Period (3)
An intensive study of the music and the composers from 1730 to 1830, emphasizing the various forms and the emergence of the homophonic texture from the polyphonic techniques of the Baroque era. The significant works of Bach's sons, Haydn, Mozart, Gluck, Pergolesi, Beethoven, and others, Prerequisite:_Mus_330_or-consent of instructor.
Mus 434 (334) Music of the Romantic Period (3)
A study of the influence of romanticism upon 19th century music from Beethoven through Debussy, including the nationalistic schools, the literature of the principal media, the masterworks.
$\sqrt{\text { Prerequisite: Mus } 330 \text { or consent of instructor. }}$
Mus 435 (335) Music of the 20th Century (3)
A study of music in the present century showing -reactions to and progressions from the 19th century as reflected by the signifi-
cant composers and schools of composition. Prerequisite: Mus 330 or consent of instructor.

## Mus 440 a and $\mathrm{b}(340 \mathrm{a}, \mathrm{b})$ Seminar in Music History and <br> Literature (2, 2)

An intensive study of the basic reference materials and of selected areas of music history. Discussion of general historical and stylistic trends. Individual projects of musical research and investigation with emphasis on the technique of research in music history will be assigned. Prerequisites: Mus 330 and 345 . Mus 440 a is a prerequisite for Mus 440 b .

## Music Theory

$\sqrt{\text { Mus } 245 \text { (145) Theory and Practice of Music I (4) }}$
Fundamental materials of acoustics, melody, rhythm, harmony and musical structure in various styles. Intensive drill in aural perception, writing, keyboard harmony and sight singing. Prerequisite: Music major or consent of instructor. Five class hours per week.

## Mus 246 (146) Theory and Practice of Music II (4)

Further exploration of harmony, melody, elements of counterpoint and concepts of musical structure, including traditional harmony up to modulation. Writing experiments in various styles and continued development of the skills of aural peiception, sightsinging and keyboard harmony. Prerequisite: Mus 245 or equivalent. Five class hours per week.

Mus-254-a-and-b-Electronic Music (3,3)
An integrated approach to the techniques, theories, and aesthetics of electronic music, including essential electronics and acoustics, with a stress on developing studio skills as they apply to the voltagecontrolled synthesizer. Prerequisite: music major or consent of instructor.

Mus 345 (245) Theory and Practice of Music III (4)
Advanced study of harmony, principles of contrapuntal writing, 20th century practices and musical structure with an emphasis on the larger forms. Analysis of selected scores. Writing experiments and continued development of aural skills and sight reading. Prerequisite: Mus 246 or equivalent. Five class hours per week. Whus 346 (246) Theory and Practice of Music IV (4)

Continued advanced study of harmony and counterpoint. Emphasis on 20th century techniques. Related problems of aural percepception and intensive work in musical analysis. Prerequisite: Mus 345 or equivalent. Five class hours per week.

Mus 347 Orchestration I (3)
Study of basic instrumental techniques, principles of orchestration and scoring for various instrumental ensembles. Prerequisite: Mus 345.

Mus 348 Orchestration II (3)
Advanced scoring for both large and small ensembles with emphasis on contemporary instrumental usage. Study of appropriate literature. Prerequisite: Mus 347 or consent of instructor.
$\sqrt{\text { Mus }} 445$ (345) Analysis of Styles (3)
Technical analysis of the works of composers from Haydn to Debussy. Written assignments in those styles. Prerequisite: Mus 345.
Mus 446 a and $b$ ( $346 \mathrm{a}, \mathrm{b}$ ) Contemporary Techniques (3, 3 )
Analysis of 20 th century music from Debussy to the present. Prerequisites: Mus 330 a and b and 346 or consent of instructor for Mus 446 a. Mus 446 a or consent of instructor for Mus 446 b .

Whus 450 (350) Tonal Counterpoint (2)
Study of tonal counterpoint, primarily of the 18th and 19th centuries, through writing and analysis. Prerequisite: Mus 345.
$\sqrt{\text { Mus }} 451$ (351) Modal Counterpoint (2)
Study of the sacred style of the 16th century, as embodied in the motet and Mass, through analysis and writing in two and three voices. Prerequisite: Mus 246.

## Whus 457 Seminar in Music Theory (2-3)

The seminar topic for each session will vary and be announced in advance. May be repeated for credit provided any particular subject matter is not repeated. Among the topics will be: Readings in Music Theory, Individual Composers, Analytic Technique of Heinrich Sohenker, Harmony in the Late 19th and Early 20th Géntury, Tonal Practice in the 20th Century, and Serialism.

## $\sqrt{M u s} 459$ Senior Project in Music Theory (4)

Research on topics approved by the theory faculty leading to a senior paper in music theory. For qualified music majors. Prerequisites: Mus 445, Mus 457, and either Mus 446 a, 446 b , 450 , or 451.

## Performance Study

## A

Mus 172 Voice Class (1)
Study of the fundamentals of vocal production through vocalises and songs. Classes are limited to small groups to allow individual vork. Admission only with consent of instructor.

(Description under General Courses in music.)
Mus 260 Conducting I (2)
An introduction to the elements of conducing, including scorereading, baton technique, and aural perception. Emphasis will be on choral and orchestral literature of the 18th and 19th century. Concurrent participation in a university ensemble is required. Prerequisite: Mus 246 or consent of instructor.

## Mus 263 Elements of Singing Pronunciation (3)

An introduction to the principles and practice of standard singing pronunciation of French, German, and Italian. Basic concepts of phonetics, intensive practice with examples from the standard repertoire and references to the best recorded models. Intended mainly for singers and keyboard players interested in vocal coaching. Prerequisite: Limited to music majors who have had at least one year collegiate study or the equivalent, of French, German, or Italian.

## Mus 360 Conducting II (2)

A continuation of Mus 260 with emphasis on rehearsal techniques, including music of the 20th century. Prerequisite: Mus 260.

## Mus 371 Woodwind Instruments (2)

Performance of the woodwind instruments: the basic techniques and the fundamental problems involved in playing and teaching the flute, the single reeds and the double reeds. Prerequisite: Music major.

## Mus 372 Brass Instruments (2)

Performance of the brass instruments; the basic techniques and the fundamental problems involved in playing and teaching the French horn, trumpet, trombone, baritone, and tuba. Prerequisite: Music major.

## Mus-373-String-Instruments-(2)

Performance of the string instruments: the basic techniques and the fundamental problems involved in playing and teaching the violin, viola, cello, and contrabass. Prerequisite: Music major.

## Mus 387 Opera Workshop (1-3)

A practical study of the methods and techniques of musictheatre leading to public performances. Activities include acting, vocal coaching, and body movement. May be repeated for credit. Prerequisite: consent of instructor.

The study and performance of repertoire for piano. Aspects of technique; interpretation and performance practices will be included. May be repeated for credit. Offered during the summer session only. Prerequisite: consent of instructor.

Mus 482 Jazz Workshop (3)
The applications of American jazz to actual performance. Exploreing techniques of ensemble playing, styles, improvisation and teaching. Visiting artists will participate. Offered during the summer session only. Prerequisite: consent of instructor.
Mus 468 Vocal Chamber music $(1-2)$

## B

## Secondary Performance Study

The study of piano or orchestral instruments to meet the secondary requirement in performance study. Limited to music majors with the consent of the department chairman.
Mus 176 Secondary Performance Study I (1)
Mus 177 Secondary Performance Study II (1)
Prerequisite: Mus 176.
Mus 276 Secondary Performance Study III (1)
Prerequisite: Mus 177.
Mus 277 Secondary Performance Study IV (1)
Prerequisite: Mus 276.

## Major Performance Study

Individual study of voice, piano, orchestral instruments. Limited to music majors with consent of the department ghairman.
Mus 178 Major Performance Study_I(3)
$\sqrt{\text { Mus } 179 \text { Major Performance Study II (3) }}$
Prerequisite: Mus 178.
Mus 278 Major Performance Study III (3)
Prerequisite: Mus 179.
Mus 279 Major Performance Study IV (3)
Prerequisite: 278.
Mus 378 Major Performance Study V (3)
Prerequisite: Mus 279.
MMus 379 Major Performance Study VI (3)
Prerequisite: Mus 378.
VMus 478 Major Performance-Study-VII-(3)
$\sqrt{ }$ Prerequisite: Mus 379.
Mus 479 Major Performance Study VIII (3)
Prerequisite: Mus 478.
Performance Study is available in the following subject areas: Piano; Harpsichord; Trumpet; Voice; Flute; Oboe; Clarinet; Bassoon; French horn; Trumpet; Trombone; Tuba; Percussion; Harp; Violin; Violoncella, String bass.

## Mus 180 Chamber Ensembles (1)

Performance of chamber music reppertoire. Open to music majors with consent of instructor. May be repeated for credit.

## Mus 084 Repertory Chorus (0)

Development of reading and aural skills through survey of choral /literature. Open to singers on non-credit basis. May be repeated.

Mus 284 University Chorale (1)
Study and performance of choral literature with emphasis on
large works. Admission by audition. May be repeated for credit.
Prerequisite: consent of instructor.

## Mus 384 University Singers (1)

Highly select chorus to perform extensive and complex repertoire. Admission by audition. May be repeated for credit.
Prerequisite: consent of instructor.

## Mus 086 Repertory Band (0)

Development of reading and performing skills through reading of band and wind ensemble repertory. Open to performers on noncredit basis. May be repeated.

## Mus 186 University Wind Ensembles (1)

Woodwind, brass, and percussion players organized into both large and small ensembles to study and perform music from the Renaissance to the 20th century. Open to all students by audition. May be repeated for credit.

Mus 088 Repertory Orchestra (0)
Development of reading and performance skills through reading of symphonic repertory. Open to performers on non-credit basis. May be repeated.

## Mus 188 University Symphony Orchestra (1)

Study and performance of symphonic repertory. May be repeated for credit. Prerequisite: admission by audition.

## Additional Major Course Areas

Mus 390 The Traditions of Harpsichord and Clavichord Making (2)
The traditions of harpischord and clavichord making, traced through the European centers of activity from the 16 th century to the present. The evolution of keyboard instrument making as seen from the maker's point of view. Lectures, slides, mechanical examples, and museum visitation. May be taken concurrently with Mus 392. Prerequisite: Mus 330 a and b or consent of instructor.

## Mus 391 The Traditions of Plano Making (2)

The traditions of piano-making from the decline of the harpsichord to the present. Comparative examination of the instrument and its construction from Mozart's time to the 20th century approached from a musical and technical point of view. May be taken
concurrently with Mus 392 . Prerequisite: Mus 330 b or consent of instructor.

Mus 392 Keyboard Workshop Seminar (1)
A seminar in the handwork methods involved in keyboard instrument making. Actual work in the construction, rebuilding, regulation, and tuning of keyboard instruments covered in Mus 390 and 391. Enrollment limited. May be repeated for credit. Prerequisite: consent of instructor. Initial enrollment must be concurrent with Mus 390 or 391.

## Mus 497 Independent Study (1-4)

Intensive study in areas of specific interest to the music major. This restricted offering represents a culmination of concentration in one of the designated programs and serves as a basis for further study at the graduate level. The project report is completed under the direction of a staff member. Consent of the department chairman required. May be repeated for credit.

## DEPARTMENT OF PHILOSOPHY

FACULTY: W. Cadbury, R. Creegan, S. Davis, R. Fullinwider, R. Garvin, J. Gould, Jr., W. Grimes, Jr., R. Howell, J. Kekes, W. Leue, T. Martland, R. Meyers, H. Meyn, H. Morick, W. Reese, K. Stern, J. Thomas, C. Whitbeck.

The Department of Philosophy-offers-diversified-and flexible programs leading to the B.A., M.A., and Ph.D. degrees. Through lectures, seminars, tutorials, guided research, undergraduate and graduate colloquia, a student philosophy club, inter-disciplinary and special studies programs, and visiting philosophers, a challenging and balanced context for philosophical development is provided for major and non-major alike.

## Degree Requirements for the Major in Philosophy

## General Program

B.A.: At least 30 credits in Philosophy, including one -and only one introductory course (Phi $110,112,114$ or 116 ), 210, 212, 310, 312, and from the following groups at least one course from each group and at least two courses from one group.

Group I (Systematic) Phi 336, 412, 415, 418, 422, 432, $510,512,515,516,518,520,522,538,540,542$
Group II (Historical) Phi 311, 314, 315, 328, 329, 334, $530,542,544,546,548,550,552,554,556$
Group III (Axiological) Phi 318, 320, 322, 324, 425, 526, 528, 558

## Phi 110 Introduction to the Problems of Philosophy (3)

A survey of representative problems in some of the major areas of philosophy; topies such as free will, morality, justice and social order, knowledge and truth, God and religion, art and beauty.

Phi 112 Introduction to Reasoning and Analysis (3)
A study of selected philosophical problems with emphasis placed on the methods and techniques for the analysis of concepts and arguments, on the recognition and discrimination of deduction and induction, cause and effect, rational decision-making, and on the resolution of confusions, ambiguities and informal fallacies.
Phi 114 Values in a Changing World (3)
-A-study-of-selected-philosophical-problems- with ${ }^{-}$emphasis-placed ${ }^{-}$ on the understanding and appreciation of alternative ideals of individual and social life and on the relevance of these ideals to current pressing human problems.

Phi 116 Our Philosophical Heritage (3)
A search, by an analysis of our philosophical past, for the roots of such current human problems as the functions and limits of science in guiding human life, the place of religion in human experience, and quests for freedom and identity, and the present conflicts among loyalties and values.

Phi 210 Introduction to Logic (3)
An introduction to classical and modern logic with an emphasis on the theory and application of truth functions. Introduction to quantification; and discussion of the structure and properties of formal systems of logic.

## Phi 212 Introduction to Ethical Theory (3)

An introduction to the dimensions of ethical experience, the factors in value judgments, and alternative theories and methods of reasoning about such notions as right and wrong, obligations, moral codes, moral conflicts, and responsibility.

## Phi 214 Comparative Religion (3)

A survey of institutions, practices, and beliefs in the major world religions.

## Phi 216 Existential Thought in Literature and Religion (3)

Exploratory and critical studies of existentialism as a cultural movement of protest, criticism, and vision, with concentration on the writings of such authors as Pascal, Kierkegaard, Nietzsche, Dostoevsky, Berdyaev, Unamuno, Kafka, and Tillich.

## Phi 310 History of Ancient Philosophy (3)

A critical study of the philosophies of representative thinkers of the West from the pre-Socratics to Plotinus. Prerequisite: a 100 or 200 level course in philosophy.

## JPhi 311 History of Medieval Philosophy (3)

A critical study of the philosophies of representative thinkers of the West from Plotinus to Descartes. Prerequisite: a 100 or 200 level course in philosophy.

## $\gamma_{\mathrm{P}}$ <br> Phi 312 History of Early Modern Philosophy (3)

A critical study of the development of modern thought from its Medieval and Renaissance background and concentrating on some of the principal European philosophies from Descartes through Kant. Prerequisite: a 100 or 200 level course in philosophy.
Phi 314 History of Nineteenth Century Philosophy (3)
A critical study of the philosophies of some representative Continental, British, and American thinkers from the Kantian period to the end of the century. Prerequisite: a 100 or 200 leevl course in philosophy.
$\sqrt{\text { Phi }} 315$ Contemporary Philosophy (3)
A critioal study of contrasting philosophical movements in the 20th century, emphasizing divergent tendencies in the United States; Britain, and on the European continent. Prerequisite: a 100 or 200 level course in philosophy.
$\sqrt{\text { Phi }} 318$ Social Ethics (3)
The application of ethical theories to the analysis of problems of conduct encountered in business, the professions, and the political process. Social criticism and its standards. Prerequisite: a 100 or 200 level course in philosophy.

## Phi 320 Political and Social Philosophy (3)

The philosophical bases for social and political institutions and practices. Such issues as the following: the nature of the state; justice-and-law; rights-and-matural-xights;equality; social utility and public interest. Prerequisite: a 100 or 200 level course in philosophy.
$\checkmark$ Phi 322 Philosophy of Religion (3)
Philosophical analysis of selected religious concepts and programs, based upon the writings of representative philosophers and theologians. The Judeo-Christian tradition will provide the chief focus of interest. Prerequisite: a 100 or 200 level course in philosophy.
$V_{\text {Phi } 324 ~ A e s t h e t i c s ~(3) ~}^{\text {(3) }}$
Philosophical analysis of concepts and sentiments pertaining to creation, appreciation, and criticism of the arts in the generic sense of the term. Prerequisite: a 100 or 200 level course in philosophy. $V_{\text {Phi }} 325$ Philosophy of Law (3)

A study of the nature and function of law, the relation of law to morality, standards of judicial reasoning, and the limits of law. Prerequisite: a 100 or 200 level course in philosophy.

## Phi 328 American Philosophy I (3)

A historical survey of philosophy in America up to the Civil War with an emphasis on the relation between philosophy and American culture. Prerequisite: a 100 or 200 level course in philosophy.

## Phi 329 American Philosophy II (3)

A critical survey of "the Golden Age" of American philosophy with an emphasis on Peirce, James, Royce, and Dewey. Prerequisite: a 100 or 200 level course in philosophy.

## Phi 334 Asian Philosophy (3)

An intensive introductory and critical study of representative Philosophies of such Asian countries as China, India, Iran, and Japan. Prerequisite: a 100 or 200 level course in philosophy.

## Phi 336 Existentialist Philosophies (3)

Critical study of existentialist thinking as approached through the writings of representative authors such as Heidegger, Sartre, Jaspers, and Merleau-Ponti. Prerequisite: a 100 or 200 level course in philosophy.

Phi 338 Philosophy of Medicine (3)
An introduction to the philosophy of the health sciences and medical ethics. Examination of the historical and contemporary concepts of disease and their relation to such concepts as "symptom," "syndrome," and "etiology" and the definitions of "person" and "human rights," and their bearing upon such a question as the justification of euthanasia. Prerequisite: consent of instructor.

Phi 412 Metaphysics (3)
A systematic examination of such philosophical concepts as existence, essence, causality, purpose, value, mind, freedom, unity. Prerequisites: Phi 210 and a 300-level course in philosophy.

## Phi 415 Philosophy of Language (3)

An investigation of the structure and properties of language with regard to philosophical issues. Problems of meaning, reference, analyticity, truth, or ontological commitment, will be examined in the-context-of-the-contemporary-theories-of-meaning-and-linguistic structure. Prerequisites: Phi 210 and a 300-level course in philosophy.

## Phi 418 Philosophy of Science (3)

A critical survey of basic issues in philosophy of science, such as the nature of laws and theories, verifiability and confirmation, explanation and prediction, statistics and probability. Prerequisites: Phi 210 and a 300-level course in philosophy.

Phi 420 Senior Seminar in Philosophy (3)
This course includes tutorial conferences, guided research, and the defense of a seminar paper on some historical or systematic topic.

## Phi 422 Theory of Knowledge (3)

A systematic study of theories of knowledge, including such topics as theories of perception, the character and value of logical systems, theories of the nature of truth and of the nature of proof. Prerequisites: Phi 210 and a 300 -level course in philosophy.

## Phi 425 Contemporary Ethical Theory (3)

Examination of selected normative and meta-ethical theories, with emphasis on issues of interest in contemporary discussions of values and the nature of valuation. Prerequisites: Phi 212 and a 300-level course in Philosophy.

Phi 432 Symbolic Logic (3)
An examination of the principles underlying valid deductive inference. Construction of a single system of sentential and first-order quantificational logic. Discussion of the structure and properties of formal systems of logic. No prerequisite, but Phi 210 is recommended.

Phi 440 Topics in Philosophy (3)
Consideration of problems selected on the basis of faculty and student interest. May be taken more than once with different content. Consult fall and spring schedules for specific topics.
Prfrequisite: a 300 -level course in philosophy.
Phi 450 Philosophy Practicum (4)
This course provides the opportunity for qualified seniors with a strong philosophy background to receive undergraduate credit for teaching experience. The student is enabled to teach other students under controlled situations and under the supervision of faculty. The' course may be repeated once, but only four credits may be counted toward satisfaction of the philosophy major requirements. $\checkmark$
Phi 497 Independent Study and Research (1-4)
Guided research and writing on a selected problem in philosophy on a tutorial basis. May be repeated more than once with different content. Prerequisites: a 300 level course in philosophy and the approval of the individual faculty member acting as project supervisor and of the departmental undergraduate studies committee.

## DEPARTMENT OF PHYSICS

FACULTY: C. L. Andrews, H. Bakhru, R. Benenson, H. Chessin, B. Chi, S. Chui, J. Corbett, N. Cue, T. P. Das, J. Garg, W. Gibson, A. Inomata, R. Lanni, A. Levitas, B. Marsh, A. Oliver, K. Ratcliff, T. S. Renzema, G. W. Reynolds, Jr., N. Rosenzweig, L. Roth, C. Scholes, W. Scholz, J. Smith, H. Story, C. R. Sun.
The objective of the department is to provide students a solid foundation in both classical and modern physics. Students are prepared either to undertake graduate study in physics, to apply physics principles and techniques successfully for advanced work in other disciplines, to enter industry usefully, or to teach in the secondary schools. Along with courses in classical mechanics, electromagnetic theory, atomic and nuclear physics, and thermal physics, students learn modern electronic techniques, principles of quantum mechanics and applications. Elective courses in other sciences and independent study with faculty members in the active research fields of the department are encouraged as part of the practical emphasis. Courses in
environmental problems, applications of nuclear physics, and physics in the arts bring physics concepts to the nonmajor.

## Special Programs or Opportunities:

One-to-one student faculty interaction is possible and is encouraged by the department. Computer use at all levels of instruction is afforded by means of teletype terminals in the Physics Building. Very modern equipment is available in all laboratories. Opportunities for valuable experience, training, and occasionally financial support exist in the form of undergraduate assistantships in the research and teaching laboratories. The Society of Physics Students sponsors popular talks, tours to nearby laboratories and social events. It offers tutorial services, slide rule and computer clinics and has its own library. It conducts tours of our facilities for students and the general public. It conducts course and teacher evaluations and also supplies information on opportunities after the B.S. degree. The department has a chapter of Sigma Pi Sigma, the national physics honor society.

## Degree Requirements for the Major in Physics

## General Program

B.S.: (Combined major and second field sequence totaling 65 credits): an introductory sequence of Phy 120, 121, $124,125,220,221,224,225$; Phy $260,315,321,332,344$, 403, 421, 431; Mat 112, 113, 212; Chm 121 a and b, 122 $a$ and $b$ and three credits advised from the fields of science and mathematics.

The department renumbered several courses two years ago. Numbers in parentheses represent the old numbering system and are included for students' convenience.

## Teacher Education Program

B.S.: Combined major and second field sequence totaling 65 credits): an introductory sequence of Phy 120,121 , 124, 125, 220, 221, 224, 225; Phy 321, Phy 250 or 315 or 403 , and eight credits of electives in physics at the 300 level or higher. Bio 101 a and b or 102 a and b ; Chm 121 a and b ; Chm 122 a and b; Mat 112, 113, 212 and six credits selected from Asy 123, Atm 300, Atm 407, and Geo 200.

Phy 105 a and b General Physics $(3,3)$
Mechanics, thermodynamics, electricity, magnetism, optics, relativity, atomic and nuclear phenomena. Three class periods each week. Prerequisite: Three years of high school mathematics. Coréquisites: Phy 106 a and b.
Phy 106 a and $b$ General Physics Lab $(1,1)$
Laboratory experiments to complement the topics being studied in Phy 105 a and b. One laboratory period each week. Corequisites: Phy 105 a and b.
'Phy 107 a and b Problem Solving: General Physics $(1,1)$
Applications of the principles and methods studied in General Physics. Assignments will be selected with the aim of aiding the student in developing a more thorough understanding of the subject mátter of General Physics. Individual assignments can be arranged for students with special needs or interests. Corequisites: Phy 105 a and b .
Phy 120 (Phy 111) Introductory Physics (3)
A study of fundamental physical phenomena. Topics include kinematics and dynamics of particles and rigid bodies. Three class periods each week. May be taken either session. Prerequisites: Mat 112 or concurrent registration.
Phy 121 Introductory Physics I Lab (1)
Laboratory experiments to complement the topics being studied in Phy 120. One laboratory period each week. May be taken either session-Corequisite:-Phy - 120 .
Bhy 122 Problem Solving: Introductory Physics 1 (1)
Application of the principles and methods studied in Introductory Physics I (Phy 120). The assignments will be selected with the aim of aiding the student in developing a more thorough understanding of the subject matter in Phy 120. Individual assignments cant be arranged for students with special needs or interests. Offered gery session. Corequisite: Phy 120.
Phy 124 (Phy 112) Introduciory Physics II (3)
A study of fundamental physical phenomena. Topics include wave motion, heat and thermodynamics, and kinetic theory of gases. Thiree class periods each week. May be taken either session. Prerequisites: Mat 113 or concurrent registration, Phy 120.
Phy 125 -Introductory-Physics-II-Lab-(1)
Laboratory experiments to complement the topics being studied in/Phy 124. One laboratory period each week. May be taken either * session. Corequisite: Phy 124.

## Phy 126 Problem Solving: Introductory Physics II (1)

Application of the principles and methods studied in Introductory Physics II (Phy 124). The assignments will be selected with the aim of aiding the student in developing a more thorough understanding of the subject matter in Phy 124. Individual assignments can be arranged for students with special needs or interests. Corequisite: Phy 124. Offered every session.

Phy 220 (Phy 213) Introductory Physics III (3)
A study of fundamental physical phenomena. Topics include electricity, magnetism, and optics. Three class periods each week. May be taken either session. Prerequisite: Phy 124.

## Phy 221 Introducfory Physics III Lab (1)

Laboratory experiments to complement the topics being studied in Phy 220. One laboratory period each week. May be taken either session. Corequisite: Phy 220.

## Phy 224 (Phy 214) Introductory Physics IV (3)

A study of fundamental physical phenomena. Topics include relativity and quantum theory with applications to atomic, nuclear, and solid state physics. Three class periods each week. May be taken second-session-only- Prerequisite:-Phy 220 .

Phy 225 Introductory Physics IV Lab (1)
Laboratory experiments to complement the topics being studied in Phy 224. One laboratory period each week. May be taken second session only. Corequisite: Phy 224.
Phy 227 Acoustics and Aural Arts (3)
Physical principles of production, transmission and reception of sound. For non-scientists. Live and reproduced sound in music, in nature, noise pollution. Fidelity: stereo in multi-channel systems. Lecture/demonstration meetings and individualized learning.

## Phy 228 Acoustics: Projects (1-2)

Laboratory or other special investigation of selected topic(s) in aqoustics. Activity and credit arranged with instructor. Prerequisite or corequisite: Phy 227 or introductory college physics.
Phy 230 Physics of Light and Art (3)
Physical principles and techniques used by physicists as applied to the visual arts. Newton's Laws applied to mobiles (L), bridges, dancers; symmetry in physics and arts, optics (L) and the camera (L), waves and holography (L), color effects (L), lasers, light quanta. Techniques: surface coating and computer graphics (L). $\mathrm{L}_{\mathrm{i}}=$ demonstrations plus laboratory. Non-mathematical course designed for non-majors.
Qphy 231 Constructive and Destructive Nuclear Energy (3)
The history of the nuclear reactor and A-bomb development, both human and technical, decisions regarding A-bomb use, principles of the H-bomb and ballistic missiles, electric power from fission reactors, prospects of controlled thermonuclear power, and medical use of nuclear particles and isotopes. Non-mathematical; for scientists and non-scientists. Two hours per week of lecture; one hour for discussion of technical or moral questions.
Phy 250 (Phy 217) Alternating Current and Electronics (3)
Alternating currents, electron tubes, and transistors. Electronic circuits including rectifiers, amplifiers, oscillators, and logic circuits. Theory developed and practical experience achieved by means of laboratory projects built by the student. Two class-laboratory periods per week. May be taken first session only. Prerequisite: one year of college physics or consent of instructor.

# $J$ <br> Phy 251 Principles of Bio/Medical Electronic Instrumentation I (4) 

Principles of modern electronic instrumentation techniques as applied to the bio/medical field. Topics include electrocardiography, blood pressure, respiration rate and temperature. Modules such as operational amplifiers, multivibrators, power amplifiers, etc., are studied individually and then assembled with appropriate transducers into working measuring instruments. Practical laboratory work is emphasized. Two class-laboratories per week. Prerequsite: one year of Physics or permission of instructor.

## Phy 260 Waves (3)

Study of basic wave concepts with emphasis on similarities and analogies between different wave phenomena. Topics include free and forced oscillations, interference, diffraction, polarization, geometrical optics, matter waves. Schroedinger wave equation. Three class periods each week. May be taken second session only. Prérequisite: Phy 220.
Why 302 (Env 302) (Phy 301) Urban and Environmental Physics Problems (3)
A physicist's approach to the collection, evaluation, and interpretation of data and opinions on selected urban and environmental problems. Topics will include mass transportation systems, comparison of various energy sources such as nuclear and fossil fuel, and effective utilization of natural resources. Three class periods eaf week. May be taken either session. Prerequisite: Algebra.
Phy 305 Physics Principles in Nuclear Medicine (3)
Basic physics in Nuclear-Medicine;-radioaetive-nuclides; radionuclide scanning; radiation chemistry; biological effects of radiation, radiopharmaceuticals; clinical radiation pathology; radiation hazards and safety; waste disposal. Three class periods a week. May be taken first session only. Prerequisite: Phy 105 b or Phy 224 or equivalent.

Phy 307 Acoustics (3)
Phenomenological and mathematical analyses of the generation, transmission and reception of sound waves. Basic principles and applications. Three class periods a week. Prerequisites: Phy 220 and Mat 212 or consent of instructor.

## Phy 315 Electronics (3)

Transistors and their characteristics; electronic circuits, field effect transistors and applications; amplifiers, low and high frequency response; operational amplifiers; consideration of control-circuit-design;-fast-switching-and-counting-devices; integrated circuits and their designs. Two class periods and one three-hour laboratory each week. May be taken first session only. Prerequisite: Phy 224 or Phy 260.
Phy 316 Electronics: Projects (3)
Independent projects involving laboratory work in the study of electronic circuits using linear and/or digital devices. (Each student is expected to undertake a project which requires originality and broadens knowledge of the area.) Special attention is paid to counters, registers, encoding, decoders; and digital applications. May be taken second session only. Prerequisite: Phy 31.5.

## Phy 321 Intermediate Mechanics (4)

Fundamentals of Newtonian mechanics, conservation theorems, central force motion, gravitation, the special theory of relativity, rigid-body problems, kinematics of two-particle collisions, motion in a non-inertial reference frame, Lagrange equations, Hamilton's equations. Four class periods each week. Prerequisites or corequisites: Phy 224 or Phy 260, Mat 212.

## Phy 332 Intermediate Electricity and Magnetism (4)

Electrostatics and magnetostatics: sources, fields in various materials and configurations. Maxwell's equations: their bases and application induction and the behavior and propagation of fields in guides and various unbounded media. Four class periods each week. Prerequisite:-Phy-321-or-consent-of-instructor.

## Phy 344 Introductory Quantum Mechanics (3)

An introduction to the quantum mechanical descriptions of simple physical systems. Topics include the particle-wave quality of matter, the uncertainty principle, the Schroedinger equation, Hermitian operators, angular momentum, one dimensional harmonic oscillator, the hydrogen atom and molecule, perturbation theory frhee class periods per week. Prerequisite: Phy 321.

## $\sqrt{\text { Phy }} 401$ History of Physics (3)

Designed to give a perspective on the development of physics through a study of the sources. Three class periods each week. May be taken first session only. Prerequisite: 12 credits of college physics.

Phy 403 Intermediate Physics Laboratory I (3)
Selected experiments to complement the intermediate courses; includes laboratories in the areas of electronics, electricity and magnetism, and modern physics. Methods of physical measurements and error analysis are emphasized. The student is given the opportunity and shown the need to use the computer in data analysis. Special projects can be arranged for advanced students. Two threehour laboratory periods each week. May be taken either session. Prerequisite: Phy 250 or Phy 332 or consent of instructor.

Phy 404 Intermediate Physics Laboratory II (3)
An extension of Phy 403 in which measurements are carried out on experiments which have not been performed by the student as part of Phy 403 and for which equipment is available. A portion of the term will be devoted to project-type experiments, either in the development of a portion of a new experiment or improvement of an existing one. Two three-hour laboratory periods each week. May be taken either session. Prerequisite: Phy 403.

## Phy 421 Modern Physics 1 (3)

Introduction to atomic, nuclear and particle physics. Topics include hyperfine structure in hydrogen, atomic structure and spectra; two nucleon system, bulk properties of nuclei, nuclear models and reactions, radioactivity, classification of elementary particles, symmetries, conservation laws, models. Three class periods each week. May be taken first session only. Prerequisite: Phy 344.


Introduction to physics of molecules and solids. Topics include molecular structure, molecular spectra, quantum statistics, thermal properties of solids, band theory, magnetism, phonons in solids, masers and lasers. Three class periods each week. May be taken second session only. Prerequisite: Phy 421.

Phy 431 Thermodynamics and Statistical Physics (3)
Thermodynamic systems and variables; the laws of thermodynamics; thermodynamic potentials and applications; ideal and real gas relations; changes of phase, introduction to probability theory; elementary kinetic theory of gases; micro- and macro-states of simple quantum-mechanical systems; Fermi-Dirac, Bose-Einstein and Maxwell-Boltzmann statistics. Three class periods each week. May be taken second session only. Prerequisites: Mat 212 and Phy 224.

Phy 440 Projects Laboratory (3)
Measurements at the level of Phy 403 are carried out using apparatus and techniques developed as part of the course. The course is unstructured and requires considerable independence on the part of the student but allows considerable time freedom. Following suggestions of the instructor, the student carries out one or more measurements of physical quantities in fields of physics of mutual interest. Written reports are required. Nominally six hours per week,-May-be-taken-either-session.-Prerequisite:-Phy-403-or-consent of the instructor.

## Phy 460 Radiation Physics (3)

A survey of the types of nuclear reactions commonly observed including elastic scattering, fast and slow neutron-induced; different types of high energy particle reactions; heavy-ion and photonuclear reactions; the techniques and terminology of radioactive decay, absorption and attenuation measurements, dose rates, build up rates, shielding principles and biological effects of radiation; methods of producing activation and activation analysis, fission detection methods, dosimetry and health physics. Three class periods each week. May be taken second session only. Prerequisite: consent of instructor.

Phy 497 (Phy 498) Independent Study in Physics (1-3)
The student will pursue independent study under the direction of a faculty member with whom he/she has made arrangements. After one or more hourly meetings per week, the student will read and discuss specialized material beyond that normally covered in a course, or carry out experiments and/or calculations in which independence is required. A written report will be submitted on the work of each session. Not limited to seniors. May be repeated for credit.

## DEPARTMENT OF PSYCHOLOGY

FACULTY: J. Bowen, S. Brown, D. Doty, R. Eisenberger, M. Eson, G. G. Gallup, Jr., N. Greenfeld, R. Hicks, A. Israel, B. Layton, A. Luchins, J. Mancuso, N. B. McCutcheon, R. Oesterreich, E. Riley, W. Simmons, J. Suls, J. Tedeschi, R. Teevan, H. Tennen, J. Tucker, C. Waterman, W. Whitten II, H. J. Wilkinson.

The objective of the department is to provide undergraduate students with a broad, general background in scientific psychology. The program is designed to prepare students-for graduate study in psychology as well as a diversity of other fields requiring knowledge of psychological principles. The department expects its students to become well-versed in the theories, research, and applications of the discipline.

The department offers a full program leading to the B.A.; a graduate program leading to the Ph.D. with several major areas of concentration and a clinical training program; and, in cooperation with the Department of Educational Psychology and Statistics in the School of Education, the University Certificate in School Psychology.

## Special-Programs or Opportunities:

The department offers opportunities for independent study and research beginning in the sophomore year. Students involved in research activities have supervised access to the department's animal behavior laboratory, social psychology laboratory, and off-campus professional agencies. The department sponsors an undergraduate student association and a local chapter of Psi Chi, the national undergraduate psychology honorary.

## Degree Requirements for the Major in Psychology

## General Program

B.A.: The program in Psychology is a combined major and second field sequence requiring a minimum of 51 credits: 27 credits in Psychology including Psy 101, Psy 211, Psy 212 and 18 credits of Psychology electives including 12 credits of courses numbered 300 or above; and 24 credits in the interdepartmental second field including a minimum of six credits in Mathematics, a mini-
mum of six credits in Natural Sciences (Biology, Chemistry, Physics), a minimum of six credits in Social Sciences (excluding Psychology) and six additional credits distributed among these three areas to yield a concentration of nine credits in a single department. Csi 201 and Phi 210 máy be substituted for Mathematics credit.

## Psy 101 Introduction to Psychology (3)

The basic methods and points of view in the scientific study of human behavior. Topics include biological bases of behavior, personality organization, intelligence, motivation, emotions, learning, and social relations.

## Psy 203 Psychology of Child Development (3)

The genesis of various behavior forms; social, emotional, and intellectual developments in contemporary society; the relationship between childhood experience and personality development. Prerequisite: Psy 101. A

## Psy 204 Applied Psychology (3)

The application of psychological principles to business, industry, and political and social institutions. Prerequisite: Psy 101.
Psy 209 Psychology Testing (3)
The methods of psychological assessment, including their historical background and an emphasis on evaluation of the reliability apd validity of psychological tests. Prerequisite: Psy 101.

## Psy 211 Introduction to Experimental Psychology (3)

The empirical study of the following psychological processes: sensation, perception, learning, emotions, and motivation. Two lectures, one lab each week. Prerequisite: Psy 101.

Psy 212 Statistical Methods in Psychology (3)
Methods of analyzing quantitative data in psychology and the behavioral sciences. The relation of each of the various methods to the design of experiments. Prerequisite: Psy 101.

## Psy 214 Biological Bases of Sensation (3)

An introduction to basic neurophysiology followed by a study of the biological bases of sensation and perception and language function. Not recommended for biology majors. Optional laboratory for one credit (Psy 315). Prerequisites: Psy 101 and Bio 101 a and b of consent of instructor.

## Psy 270 (Soc 260) Social Psychology (3)

The relation between the individual and the group, the influence of culture and of institutions on human personality, the nature and types of leadership, factors in the development of social attitudes, the psychology of mass movements and of social decisions.
prerequisite: Psy 101 or Soc. 115.

## Psy 297 Directed Study in Psychology (3)

The course provides the opportunity for a sophomore student to work on a research project under the supervision of a faculty mem-
ber. Open to majors and non-majors with consent of department chairman. May be repeated, once, for up to a total of six credits. (Majors may apply only six credits of total credits earned in 297, ( 397 and 497 to 27 credits required in psychology). Prerequisite: Psy 101.

## Psy 310 History of Psychology (3)

A critical analysis of basic writings which have contributed to the historical development of psychology as a science. Prerequisite: Psy 101.

## Psy 314 Biological Bases of Behavior (3)

The psychophysiology of sleep and arousal, reward and punishment, biological drives and learning and memory. Optional laboratory for-one-credit-(Psy-315).-Prerequisite:-Psy 101 ${ }^{-}$and -Psy 214 or Bio 410 or Bio 417 .

## Psy 315 Biological Bases of Behavior Laboratory (1)

Instruction in gross neuroanatomy, electrical recording and surgical techniques will be followed by student projects such as brain stimulation and lesions in animals or EEG studies in humans. Prerequisite or corequisite: Psy 214 or Psy 314.

Psy 327 Personality (3)
Biological and social determinants of personality and its development; methods of studying personality; the various systems of psychology and their interpretations of personality structure.
Prerequisite: Psy 101.
Psy 338 Abnormal Psychology (3)
A-survey-of-the-behavior-disorders, including the psychoses, psychoneuroses, mental deficiencies, and other forms of psychopathology. Prerequisites: Psy 101, and 203 or 327.
Psy 340 The Psychology of Human Sexuality (3)
An in-depth coverage of research and theory on: biological and social causes of sex differences in behavior, attraction and love, marriage and alternatives, sexual behavior, personality variables relating to sexual responsiveness, sexual dysfunction, sexual deviafions, effects of erotica, and birth control. Prerequisite: Psy 101.
$\checkmark$ Psy 380 Learning (3)
Analysis of basic problems in learning. Consideration of data resulting from human and animal experimentation. Prerequisite: six credits in psychology.
$\sqrt{\text { Psy }} 382$ Perception (3)
A consideration of how man gains knowledge of the world through his senses, and of the organization and stability of man's perceptual world. Prerequisite: six credits in psychology.
Psy 384 Motivation (3)
Various theories of motivation will be evaluated in the light of relevant evidence. Prerequisite: Psy 101.
$\sqrt{\text { Psy } 385 \text { Evolutionaly Psychology (3) }}$

Psy 397 Directed Research in Psychology (3)
The course provides the opportunity for a junior student to work on a research project under the supervision of a faculty member. Open to majors and non-majors with consent of department chairman. May be repeated, once, for up to a total of six credits. (Majors may apply only six credits of total credits earned in 297, 397 and 497 to 27 credits required in psychology.) Prerequisite: Psy 101.
Psy 450 Selected Topics in Psychology (3)
Selected topics from the current literature bearing on issues which define the specified fields. Specific areas to be announced at time of offering. May be repeated once for credit. Prerequisite: Psy 101 and consent of instructor.
\Psy 497 Independent Study and Research (1-6)
Survey of the research literature and/or conduct of a research project on a selected methodological, theoretical, or applied problem.' Each student must have a faculty advisor. Open to majors and non-majors with consent of department chairman. May be repeated, once, for credit. (Majors may apply only six credits of total credits earned in Psy 297, Psy 397, and Psy 497 to the 27 credits required in psychology. Prerequisites: Psy 101 and 12 additional credits in psychology. Psy 211 and Psy 212 recommended.

DEPARTMENT OF PUERTO RICAN STUDIES
FACULTY: E. Acosta-Belén, E. Christensen, J. E. Irizarry, J. A. Silén

The curriculum of the Puerto Rican Studies Department has been designed to provide students with an opportunity for intensive interdisciplinary exploration of many different areas of the Puerto Rican experience as a minority group in the United States. In addition, it provides an integrated broad-based knowledge of the island, and its relation to the Caribbean, the rest of Latin America, and the United States. Courses deal intensively with many aspects of the life of the Puerto Ricans-cultural, political, social and economic processes, language, literature,_art, $\bar{m} \overline{s i c}$, and education. These areas will be studied from the perspective of contemporary forms: cultural pluralism, bilingualism, the immigrant's United States experience, as well as the historical attempt by the Puerto Rican people to achieve an individualized national personality.

Students majoring in Puerto Rican Studies may wish to spend a term in Puerto Rico under a program sponsored by SUNY Buffalo. This program affords qualified students an opportunity to spend a term in Puerto Rico, to engage
in independent study, workshops, formal classes, and field work relating to Puerto Rican culture and institutions. The program is staffed by leading Puerto Rican writers, artists, and scholars. Prior permission of the chairperson is required.

## Degree Requirements for the Major in Puerto Rican Studies

## General Program

B.A.:- A- total of 33 -credits in-Puerto Rican-Studies: 18 credits of required course work to include Prs 101, Prs 143, Prs 150 , Prs 329 , Prs 346 , Prs 490 , plus at least three additional credits 300 level or above. Twelve additional credits in Puerto Rican Studies as advised by the faculty of the department. Courses that are offered by other departments that have been officially cross-listed with the Puerto Rican Studies Department will be accepted to fulfill this requirement.

## Other Degree Requirements

A second major or second field as advised by the faculty of the department.

Upon completion of the program requirements, candidates should possess a reading and writing knowledge of Spanish.
$\checkmark$ Prs 101 History of Puerto Rico (3)
A survey of Puerto Rican history from the pre-Hispanic era to the present. Emphasis on transition from domination by Spain to present status.

## Prs 143 Survey of Puerto Rican Literature (3)

A study of the major literary trends in Puerto Rico. The course deals with literature written in both Spanish and English.
Prerequisite: reading knowledge of Spanish.
Prs 150 Puerto Rican Culture (3)
A survey of contemporary Puerto Rican culture. Problems of Puerto Rican identity on the U.S. mainland as well as patterns of Puerto Rican migrations to urban centers. Prerequisite: An introductory course in either Anthropology, Sociology, Psychology, or History, and consent of instructor.

## Prs 200 Puerto Rican Political and Social Writers (3)

Study of major Puerto Rican essay writers; special consideration of the political and social realities of Puerto Rico reflected in their thought. This course will be conducted in Spanish.


A survey of Puerto Rican art from pre-columbian times to the present. Emphasis will be placed on the Taino and African elements of Puerto Rican art and on contemporary art of protest.
Prs 231 (Alas 231) Dynamics of Racism (3)
(Same as Ans 231)
Prs 250 Puerto Rican Politics and Power Structure (3)
An examination of Puerto Rican political parties. The emergence of power groups in Puerto Rico and the U.S. and their effects on political change. Prerequisite: Prs 150 or Pos 120.
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Prs 282 (Soc 282) Minority Groups (3)
fame as Soc 282.
.Prs 289 (Soc 289) Special Topics in Ethnicity (3)
Same as Soc 289.
Prs 301 (Alas 301) Puerto Rico and the Caribbean (3)
A comparative study of the socio-historic development of Puerto Rico and the major Caribbean islands from the colonial period to the present, with special reference to the slavery systems, platatimon societies, colonial policies, and the rise of nationalism in the Caribbean basin.
Prs 329 (Soc 379) Urban Puerto Rican Family
PRS 330 Puerto Preanimanituration

A psychodynamic analysis of the formation of self-concept and processes of identification as related to the Puerto Rican experience and the anthropological make-up of the Puerto Rican people.
Pŕrerequisites: Prs 150 and Prs 329.
1.
(S30 (Soc 380) Sociology of Poverty
Same as Soc 380.
Prs 400 (las 400). Current Latin American Ideas (3)
Same as Ias 400.
'Prs 401 History of the Puerto Rican Labor Movement (3)
A study of the development of the Puerto Rican labor movemont from its 19th century origins to the present. Prerequisite: Prs 101 or Prs 150.
Prs 414 (Sn 414) Literature of the Hispanic Caribbean (3)
A study of selected major writers of Cuba, the Dominican Republic, and Puerto Rico of the 19th and 20th centuries. Special consideration of literature as a reflection of situations and problems peculiar to the hispanic Caribbean. Conducted in Spanish. Prerequisite: Sn 123.

## Prs 415 Puerto Rican Literature of the 20th Century: Prose (3)

A study of modern and contemporary Puerto Rican prose writers with emphasis on the short story and the novel. Prerequisite: Prs 143.

An examination of internal structures of the Puerto Rican community in the U.S. and their relationship to structures outside the community. Current problems concerning the Puerto Rican community will be studied and analyzed. Special emphasis on housing, public education, welfare, community health and race relations. Prerequisite: Prs 150 or Soc 115.

## Prs 431 (Aas 431) Third World Concept (3)

Same as Aas 431.

## Prs 448 (Soc 448) Social Change in Latin America (3)

Same as Soc 448.
Prs 450 (Aas 450) - Minority Children in the U.S. School System (3)
A study of the effects of the U.S. school system on the cultural, psychological, and linguistic make-up of minority children, with emphasis on the Puerto Rican child. An analysis of bilingualism, bidialectalism, and cultural pluralism as a means of dealing with the conflicts created within the present school system. Prerequisite: Prs 150.

## Prs 490 Senior Seminar in Puerto Rican Studies (3-6)

Critical examination and discussion of major contemporary topics in the area of Puerto Rican Studies. Emphasis on the development of research and bibliographical techniques. Prerequisite: majors in senior year. Can be repeated by seniors only, for up to six credits.

## Prs 491 (Ant 481) Research Projects (3-6)

An introduction to basic research skills required to answer ques-
tions on human behavior, with special emphasis on cross-cultural interaction. Students will be involved in a specific research project and this will provide them with the basic research methods to include data collection, processing, and analysis. Prerequisite: Junior or Senior standing or consent of the instructor.

## Prs 497 Independent Study (3-6)

Independent study in an area of special interest to the student under the supervision of the sponsoring faculty member. May be repeated for up to six credits. Prerequisites: the consent of instructor and department chairperson.

# DEPARTMENT OF RHETORIC AND COMMUNICATION 

FACULTY: W. Carleton, T. Conley, K. Kendall, L. Lichtig, M. Rudden, L. St. Clair, R. Sanders, D. Switzer, S. Taylor, P. Tompkins, R. Wilkie.
Study in Rhetoric and Communication reflects the general goals of liberal and humanistic education. The department offers a broad range of courses which focus on describing, analyzing, and explaining human communication. These courses examine different settings, forms, and media of communication from a variety of perspectives.

The department's courses are organized into four major areas of study, as follows:

Communication Arts: Rco 201, 203, 204, 206, 208, 21.2, 214, 303, 304, 308, and 312.

History and Criticism: Rco 235, 237, 238, 335, 336, 337, 430 , and 439.

Rhetorical Theory: Rco 262, 362, and 462.
Communication Theory: Rco 265, 367, 368, 369, 465, and 470 .

In addition, the department offers an introductory course, Rco 100, which provides students with insights into matters of concern in each of the four areas of study.

## Degree Requirements for the Major in Rhetoric and Communication

## General Program

B.A.: A minimum of 36 credits in the Department of Rhetoric and Communication including Rco $100,235,262$, and 265, and at least 12 credits in courses on or above the 200-level.

## Rco 100 Explorations in Rhetoric and Communication (3)

An introduction to the study of rhetoric and human communication. Lectures and discussions exploring various characteristics, functions, and modes of rhetoric and communication in contemporafy situations.
Reo
Interpersonal Communication (3)
An introduction to those aspects of communication which typify interpersonal relationships. Included are experientially acquired insights into, and theoretical considerations of, interpersonal communication.

## Rco 203 Speech Composition and Presentation (3)

An introduction to the composition and presentation of speeches. Guided practice in topic selection, organization, and the oral presentation of various kinds of speeches.

## Rco 204 Group Communication (3)

The theory and practice of small group interaction. Examination of both group dynamics and cognitive processes, as they relate to group deliberation.

Rco 206 Parlimentary Procedure (2)
A practical introduction to parliamentary procedure, wtih experience in chairing meetings and rulings on parliamentary questions.

RCO 208 Rhetorical Interpretation of Literature I (3)
Theory and practice in determining and conveying the meaning of literary works. Special emphasis upon reading literary works in terms of their rhetorical design (i.e., their intention, structure, and effect on the audience).

## Rco 212 Argumentation and Debate (3)

Study of and practice in the methods of argument. Special emphasis upon skills needed in oral argumentation.

## Rco 214 Communication Through Mass Media (3)

Theory and practice of creating radio and television broadcasts, with a consideration of the relevant technical features of these media. Prerequisite: Rco 238, consent of instructor, and no previous production experience.

## Rco $29^{9} 5^{\circ}$ Rhetorical Criticism (3)

Introductory study of the rhetorical approach in criticism, with consideration of the critical methods developed by such writers as Aristotle, Baird, Black, and Burke. Lectures and guided practice in writing and evaluating rhetorical criticism.
Roo-237(Gw)-Publio-Address-in-Hisiory(3)- Deletefall 77
An examination of historieally-signiffoant rhetortcal-documents, from earliest times to the present.

An introduction to radio, television, film, and selected popular arts considered as rhetorical forms. Consideration of the history and special properties of each medium, with emphasis on approaches to research and criticism.

Rco' 2 股 ${ }^{-2}$ Introduction to Rhetorical Theory (3)
An examination of the writings of major theorists, from Isocrates to figures of the twentieth century.

## 3655 Introduction to Communication Theory (3)

A survey of empirical approaches to the study of human communication. Consideration of major research findings, methods, and conceptualizations in such areas as persuasive communication, group communication, and mass communication.

## Rio 303 Advanced Speech Composition (3)

Study and exercises in the methods and procedures of speechwriting. This course presumes a mastery of basic public speaking skills. Prerequisite: Roo 203 or consent of instructor.
Rio 304 Conference and Group Leadership (3)
Advanced study of small group deliberation, with special emphasis upon theories of group leadership as they apply in business and professional group communication settings. Prerequisite: Roo 204 or consent of instructor.

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Roo-308-Rhetoricat Interpretation of Literature $-1+(8)$
Advanced study of the means of determining and conveying the meaning of literary works. From term to term, the oeurse-focus will vary, to consider different genres, periods, and problems. May pe repeated for a total of nine credits with changes in topic. Prerequisite Reo-808-0r-eonsent-ef-instructor.
Rco-310-Radio-Broadoasting-Produetion-(3)-
Fundamentals of radio production, with emphasis upon the ce- $\triangle$ alive process involved in giving aural form to program ideas. Guided practice in the use of studio and control room equipment. -

## Roo 312 Advanced Argumentation and Debate (3)

Advanced study of the theory and practice of rhetorical argument. Special attention to theories of argument as they relate to oral debate. Prerequisite: Rio 212 or consent of instructor.
Reo-3अ-Fetevision Broadcasting Production (3) deletetele 77
Techniques of telexision-produetion-with-pactice-in writing,
producing, directing, staging, and lighting. Prerequisite:_Rco 238 br $e$ consent of instructor.
Roo 335 Studies in the History of Public Address (3)
Study of a selected period, region, genre, or figure in historical public address; e.g., Rhetoric of the American Revolution, Civil War Oratory, Churchill's speeches. May be repeated for a total of nine credits with changes in topic. Prerequisite: Roo or consent of instructor.
(330)

## Roo 336 Studies in Contemporary Public Address (3)

Study of a selected region, genre, or figure in contemporary publid address; e.g., Black Rhetoric, campaign oratory, speaking in the British Parliament. May be repeated for a total of nine credits with changes in topic. Prerequisite: Roo hat or consent of instructor.
Roo 337 The Rhetoric of Propaganda-Nfovements (3)
Consideration of the theories of mass persuasion, with application to examples of the use of propaganda in selected movements.
Prerequisite: Rc
Re o 362 (Cw 362) Contemporary Rhetorical Theory (3)
An examination of current rhetorical concerns, as embodied in the writings of such theorists as I. A. Richards, Richard Weaver, Kenneth Burke, and Chair Perelman. Prerequisite: Roo or consent of instructor.

## Rio 367 Theories of Interpersonal and Small Group Communication (3)

An examination of the theories, research methods, and representative research findings related to experimental and observational studies of communication in interpersonal and small group settings. Prerequisite: Roo 201 or 204, and Roo 865 or consent of instructor.

## Roo 368 Empirical Studies of Persuasion-(3)

Study of empirical approaches to attitude and behavior change brought about by communication. Prerequisite: Rco 265 or consent of instructor.

## Rio 369 Theories of Organizational Communication (3)

Theoretical_models _and _empirical studies_ of communication within complex organizations. In -depth case study of one or more organizations. Prerequisite: Nco

## Roo 397 Independent Study and-Research in Rhetoric and Communication (1-3)

Directed reading and conferences on selected topics. Course may be repeated for a total of six credits. Prerequisite: consent of instructor and department chairman.

Heo-430-Television and Film Documentary (3)
An examination of the development and refinement of the filmed documentary, with emphasis on the uses of documentary to inform and-to-perstrade-Rrerequisite-Reo-238-9i-Axt_290.

Rio 439 Seminar in Rhetorical Criticism (3)
Study of a particular tonic or method of rhetorical_criticism. A major research paper will be required. May be repeated for a total of nine credits with changes in topic. Prerequisite: consent of instructor.

Rio 462 Studies in Rhetorical Theory (3)
Study of a selected topic in rhetorical theory; e.g., the nature of the enthymeme, Ciceronian rhetorical theory in the Renaissance, rhetorical ethos. May be repeated for a total of nine credits with changes in topic. Prerequisite: consent of instructor.

## Roo 465 Studies in Communication Theory (3)

Study of a selected topic in communication theory; e.g., nonverbal communication, consistency theory, mass communication. May be repeated for a total of nine credits with changes in topic.
Prerequisite: consent of instructor.

## Rio 470 Methods of Communication Research (3)

Study of research strategies, design of experiments, and conduct of observational studies of human communication. Preparation of a research proposal. Prerequisite: Rco 265 or consent of instructor.

# PROGRAM IN RUSSIAN AND EAST EUROPEAN STUDIES 

(Interdisciplinary)
FACULTY: H. Andersen, A. Andreyewsky, H. Baran, T. Barker, J. Burian, K. Chen, T. Clyman, L. Fields, G. Frangos, M. Frinta, W. Heiser, E. Hoffman, A. Iwanska, S. Katz, N. Kisseleff, R. Patterson, K. Shaffer, A. Shane, J. Symons, J. Szoverffy, S. Temkin, C. Tucker, J. Zacek, W. Zenner, M. Zych.
The interdisciplinary major-second field with a concentration in Russian and East European Studies offers students the opportunity to receive expert guidance in acquiring a broad, relevant experience in this field, to develop necessary language skills for this field, to choose between a concentration in literature and one in history and civilization, and, finally, to acquire a comprehensive view of Russian and East European civilization instead of the narrower perspective of a single discipline.

## Degree Requirements for the Interdisciplinary

## Major-Second Field with a Concentration in Russian and East European Studies

## B.A. History Track

Rus 253; 24 credits in history including His 353 a and b , His 354 a and b , His 481 and 9 elective credits in history including one course chosen from His 452 , His 458 a and b, His 554 a or b ; 18 credits in language. Students beginning a language at the 100 or 200 level must take all 18 credits in one Slavic language. Students certified by the department of Slavic Languages and Literatures as having achieved proficiency in a Slavic language before having completed - 18 -credits-may-elect the ${ }^{-}$remainder of the ${ }^{-}$requirement from a second language; 6 credits of approved related courses from disciplines other than history; and Res 498. Total credit requirements: 54 credits.

## B.A. Language and Literature Track

Rus 253; 27 credits of language and literature including 14 credits in Russian language above Rus 201, Rus 311, and 3 credits in Russian literature, and 7 credits in elec-
tives offered by the Department of Slavic Languages and Literatures (preferably in courses other than Russian); 15 credits in History including His 353 a or His 353 b, His 354 a or His 354 b, His 481, 6 credits of approved history electives; 6 credits of approved related courses from disciplines other than Slavic Languages and Literatures; and Res 498. Total credit requirements: 54 credits.

Senior research project done under the direction of a faculty member participating in the Russian and East European study program. Project must be approved by the Committee on Slavic and East European Studies. Prerequisite: Reading knowledge of a Slayic language.

## DEPARTMENT OF SLAVIC LANGUAGES AND LITERATURE




#### Abstract




## Studies (3)

FACULTY: H. Baran, T. Clyman, H. Goldblatt, N. Kisseleff, M. Lazic, R. Patterson, E. Scatton, A. Shane.
Proficiency in the foreign language and a mastery of the literature are treated both as an end in themselves and as a means to better acquaint the student with the foreign country, its culture, and ultimately himself. In addition to a variety of language and literature courses taught in the language, the department also offers a series of literature courses in English translation which make Slavic literatures, including the great treasury of Russian literature, accessible to all undergraduate students regardless of language proficiency. Extracurricular opportunities of practicing the foreign language are afforded by language clubs and language tables.

## Degree Requirements for the Major in Russian

## General Program

B.A.: A minimum of 35 credits of Russian above Rus 201, including Rus 202, 253, 301, 302, 311, and two additional courses from each of the following three groups. Group I (Language): 208, 303, 306, 307, 407.
Group II (Literature): 334, 435, 438.
Group III (Literature in Translation): 254, 255, 256, 257, $259,341,342,353,354,356,357,358,359$.
No more than nine credits for courses in translation (Group III) may be applied toward fulfillment of the 35 credits.

## Teacher Education Program

B.A.: 35 credits of Russian above Rus 201, including Rus 202, 253, 301, 302, 303, 311, at least one additional course from each of the three groups listed above, and Lin 206. No more than nine credits for courses in translation (Group III) may be applied toward fulfillment of the 35 credits.

All students wishing to enter elementary, intermediate, or advanced language courses must take the placement examination administered by the department. Previous experience has indicated that students with one year of high school Russian will usually place in Rus 101, two years in Rus 102, three years in Rus 201, and four years in Rus 202. Students are reminded that placement is contingent upon examination results and consultation with a department adviser.

## Russian

## Rus 10 a Elementary Russian for Graduate Students (0)

An intensive study of the basic structure of Russian, supplemented by/graded readings. This course is limited to a reading objective
Rus 10 b Elementary Russian for Graduate Students (0)
Continued study of the structure of Russian. Careful reading of materials chosen from a wide variety of subject areas. This course is limited to a reading objective. Prerequisite: Rus 10 a or the equivalent.

## Rus 101 Elementary Russian (5)

Beginner's course with audio-lingual approach; fundamentals of the language structure and sounds; emphasis on correct pronunciafion and oral expression. Five classes, two laboratories each week.

Rus 102 Elementary Russian (5)
Beginner's course with audio-lingual approach. Fundamentals of the language structure: the introduction of graded readings. Five glasses, two laboratories each week. Prerequisite: Rus 101 or equivalent.

## Rus 150 Russian Masterpieces in English Translation (3)

Reading of important literary works of nineteenth and twentiethcentury Russia, chosen for their intrinsic value and significance in the development of Russian literature and thought. Course may not be used to fulfill the requirements of the major in Russian. Conducted in English. Offered in alternate years.

Rus 160 Russian Poets in English Translation (3)
Study of major works by Russia's greatest poets of the 20th century such as Blok, Mayakovsky, Pasternak, Akhmatova, and
others. Conducted in English. Course may not be used to fulfill the requirements of the major in Russian. Offered in alternate years.

Rus 201 Intermediate Russian (5)
Completion and review of basic Russian grammar with emphasis (on the active skills of speaking and writing. Five classes each week. Prerequisite: Rus 102 or equivalent.

## Rus 202 Intermediate Russian (5)



Intensive practice in conversation based on everyday subjects and in reading and composition based on a variety of contemporary materials. Prerequisite: Rus 201 or equivalent.

## Rus 208 Scientific Russian (3)

Scientific and technological terminology. Reading and translation from contemporary books and journals in the fields of the physical, biological, and social sciences. Prerequisite: Rus 201 or consent of instructor.

## Rus 253 Russian Civilization (3)

The cultural and ideological development of Russia from the inheritance of the Byzantine Empire to the establishment of Soviet power. Audiovisual materials are used to familiarize students with particular aspects of Russian culture. Conducted in English.
Rus 254 Soviet Society and Culture (3)
An interdisciplinary study of contemporary Soviet Russian society and culture. Audio-visual materials are used extensively to provide students with a graphic image of the USSR. Conducted in English.
$\sqrt{\text { Russ } 255}$ Russian Science Fiction in English Translation (3)
The development of science fiction in Russian and other selected Slavic countries with readings in writers such as E. Zamiatin, A. Tolstoy, Strugatsky Brothers, S. Lem and K. Capek. Conducted in English. Offered in alternate years.

## Rus 256 Russian Literature in Revolt and Expatriation (3)

A study of leading Russian writers who clashed with their Church and Government and the societal and literary norms of their day. Readings from the works of such writers as Avakum, Chaadaev, Pushkin, Tolstoy, Bunin, Solzhenitsyn and Brodsky. Conducted in English. Offered in alternate years.
Rus 257 The Comic in Russia (3)
Types of the comic in Russian culture and literature. Topics include: the carnival element in folklore, the comedies in Griboedov, Gogol, and Chekhov, the humor of Dostoevsky, and the comic novel in the Soviet Union. Conducted in English. Offered in alternate years.
Rus 259 Russian Drama in English Translation (3)
From the comedies of Fonvizin and Griboedov satirizing the Russian social scene to the twilight melancholy of Chekhov and the theater of 20th-century Soviet Russia, the course surveys major trends in Russian drama and analyzes major works. Conducted in English. Offered in alternate years.

Rus 301 Advanced Russian (3)
The study of advanced grammar including word formation with intensive practice in speech and writing. Prerequisite: Rus 202.

## Rus 302 Advanced Russian (3)

The study of advanced grammar with intensive practice in speech and writing, and the reading of cultural texts. Prerequisite: Rus 301.

## Rus 303 Russian Phonology (3)

Introduction to articulatory phonetics and phonemics with intensive drill in pronunciation and intonation; extensive use of tapes fand records. Prerequisite: Rus 202 or consent of instructor.

## Rus 306 Advanced Conversation (3)

Intensive conversational practice and discussion based on current. events and contemporary texts. Prerequisite: Rus 202.

## Rus 307 Contemporary Russian Press (3)

Reading of Russian language newpapers and periodicals.
$\checkmark$ Rus 311 Introduction to Genres (3)
An introduction to literary terminology and basic prose genres of modern Russian literature. Textual exposition and literary analysis of individual works representative of specific genres of movements. Prerequisite: Rus 202.

Rus 334 Russian Short Story (3)
A historical survey of the Russian short story from its eighteenthcentury origins to the present. Representative readings from Karam-
zin, Pushkin, Gogol, Turgenev, Chekhov, Bunin, Babel, and others. $V^{\text {Prerequisite: Rus } 202 .}$

Rus 341 History of Russian Literature in English Translation I (3)
History of Russian literature from its beginnings to 1861. Conducted in English. Offered in alternate years.

## Rus 342 History of Russian Literature in English Translation II (3)

History of Russian literature from 1861 to present. Conducted in
English. Offered in alternate years.
Rus 353 19th Century Russian Novel in English Translation (3)
The development of the Russian novelistic tradition from Pushkin, Lermontov, and Gogol through Tolstoy and Dostoevsky, examined against the social and historical background of the times. Conducted in English. Offered_in alternate-years.

## Rus 354 20th Century Russian Novel in English Translation (3)

The modern Russian novel of Critical Realists, Symbolists, and Socialist Realists, including the masterworks of Bely, Gorky, Sholoskhov, and Stalin Prize winners. Conducted in English. Offered in alternate years.

Rus 356 (Cwl 356) Tolstoy in English Transiation (3)
A study of Leo Tolstoy's literary evolution and contributions in fiction ${ }^{\text {s with }}$ attention to his moral quest for self-perfection, views on women's liberation, civil disobedience and rejection of Church.

Representative novels, short stories, and essays will be read. Conducted in English.

Rus 357 (Cwl 357) Dostoevsky in English Translation (3)
A critical study of Dostoevsky, his life, times, and works and influences as a novelist, psychologist, religious philosopher, and sofial theoretician, with special reference to problems of the present time. Conducted in English.
Rus 358 Solzhenitsynte) in English Translation (3)
In-depth reading and discussion of the literary, historical, psycho-
logical, and other aspects of the work of the contemporary Russian writer Solzhenitsyn. Conducted in English.

Rus 359 Chekhov in English Translation (3)
An examination of Chekhov's stories and plays with emphasis on social, psychological and philosophical insights. Special attention to Chekhov's role in the development of the short story and drama. Conducted in English. Offered in alternate years.

Rus 397 Independent Study (2-6)
Directed reading and conferences on selected topics. May be repeated for credit. Prerequisite: consent of instructor and department chairman.

Rus 407 Literary Translation (3)
Introduction to translation theory and practice in translating Russian literary texts into stylistically equivalent idiomatic English. Prearequisite: Rus 302 or consent of instructor.


Rus 435 Russian Poetry (3)
An introduction to Russian versification and a historical survey /of Russian verse with emphasis on the Golden and Silver Ages of the early 19th and early 20th centuries. Prerequisite: Rus 202

## Rus 438 Russian Drama

A historical survey of the Russian theater and the development of Russian drama from its origins to the present. Readings in 19th and 20th century plays. Prerequisite: Rus 202.

Graduate courses on the 500-level in the Department of Slavic Languages and Literatures are open to qualified seniors (see Bulletin of College of Arts and Sciences for course descriptions).

## Polish

Pol 101 Elementary Polish (4)
Beginner's course with audio-lingual approach; fundamentals of language structure and sounds; emphasis on correct pronunciation. Four classes, two laboratories each week.

## Pol 102 Elementary Polish (4)

After completion of structural study, emphasis is given to reading in conjunction with a continuation of the audio-lingual method. Four classes, two laboratories each week. Prerequisite: Pol 101 or equivalent.
Pol 201 Intermediate Polish (3)
Review of grammar and syntax, followed by literary readings in conjunction with a continuation of the audio-lingual method. Three classes, one laboratory each week. Prerequisite: Pol 102 or equivapent.
Pol 202 Intermediate Polish (3)
Continued literary readings in conjunction with a continued emphasis on the audio-lingual method. Three classes, one laboratory Each week. Prerequisite: Pol 201 or equivalent.

## Pol 256 Masterpieces of Polish Literature (3)

An introduction to major Polish writers with a critical study of outstanding works representative of literary trends examined in the byoader context of Polish cultural development. Knowledge of Polish yot required. Offered in alternate years.
Pol 397 Independent Study (2-6)
Directed reading and conferences on selected topics. May be repeated for credit. Prerequisite: consent of instructor and department chairman.

## Slavic

Sla 101 Elementary Serbo-Croatian (4)
Beginner's course; fundamentals of language structure and sounds with emphasis on oral practice of the basic grammatical structure. Serbo-Croatian as a spoken and written language.

## Sla 102 Elementary Serbo-Croatian (4)

Beginner's course; fundamentals of language structure and sounds with emphasis on oral practice of the basic grammatical structure. Serbo-Croatian as a spoken and written language. Prerequisite: \$la 101.

## Sla 150 Ukrainian Language and Culture (4)

An intensive introductory course, with emphasis on the rapid acquisition of the fundamentals of grammar-and-conversational practice. Readings in Ukrainian culture and civilization.

## Sla 257 20th Century Slavic Literature (3)

An introduction to major contemporary writers of Poland, Czechoslovakia, Yugoslavia, and the Ukraine such as Gombrowicz, Capek, Andric and Stefanyk.

## SOCIAL STUDIES PROGRAM

Kendall Birr, Director

The Social Studies Program offers two plans leading to provisional certification as a Social Studies teacher in the secondary schools of New York State. Both plans require the same basic 42 credit program in Social Studies, but differ in the choice of a second field. The first program (Second Field in other than Social Studies) permits the development of a second field in any approved subject offered by the university. The second program (Combined Mājor and Second Field in Social Studies) permits a concentration in one of the Social Studies. An M.A. program leading to permanent certification is available to provisionally certified teachers.

## Degree Requirements for the Major in Social Studies

## Teacher Education Program

B.A.: (Major in Social Studies) (Second Field in other than Social Studies): 42 credits including six credits in American History, six credits in European History, and six additional credits of History; Eco 100 a and b; Gog 101 or 102, and three additional credits of Geography; Soc 115 and three additional credits of Sociology or Anthropology; and six credits of Political Science as advised.
(Combined Major and Second Field in Social Studies): 54 credits including six credits in American History, six credits in European History, and six additional credits of History; Eco 100 a and b; Gog 101 or 102 and three additional credits of Geography; Soc 115 and three additional credits of Sociology or Anthropology; six credits of Political Science as advised; and twelve additional credits in one of the following Social Studies: Anthropology, Economics, Geography, Political Science or Sociology.

Students with a Second Field in History should complete the requirements through the Teacher Education Major offered by that department.

This program also requires 21 credits in Education courses of which three credits are in Teaching Methods for Social Studies (E Sst 401) and nine credits are in Student Teaching (E Sst 490).

## Other Degree Requirements

The College of Arts and Sciences requires that all majors must include 12 credits in courses numbered 300 and above.

## Sst 400 Selected Problems in the Social Studies (3)

A critical analysis of selected problems of concern to historians and social scientists. The approach is historical, with an attempt to integrate the major theories and techniques of the social studies as applied to some of the problems of the modern world. For seniors in the Teacher Education Program during their professional session.

## DEPARTMENT OF SOCIOLOGY

FACULTY: R. Farrell, R. Felson, R. Forer, A. Foster, A. Higgins, A. Iwanska, M. La Gory, M. Levy, N. Lin, A. Liska, P. Meadows, J. Nelson, A. Richardson, M. Richter, Jr., H. Steadman, R. Ward, P. Wheeler, W. Yoels.

The revised undergraduate program offers students a broad, diversified set of courses in the various substantive areas of the discipline. These curricular areas are listed below, and courses falling within each area may be identified by the middle number which corresponds with the appropriate curricular area number (e.g., Soc 430, Origins of Sociology, from curricular area \#3, Theory and Systems). Students may use the area and course designations to select a program most suitable for their own personal and vocational goals.

| Number | Curricular Area Content |
| :---: | :--- |
| 1 | General |
| 2 | Research Methods and Methodology |
| 3 | Theory and Systems |
| 4 | Social Organization and Change |
| 5 | Institutions |
| -1 | Social Psychology |
|  | Urban Sociology |
| 8 | Social Deviance and Disorganization |
| 9 | Special Courses |

Because of the extensive renumbering of courses, course numbers from the old numbering system are listed in parentheses and are included for the students' convenience.

Study of the principles of play selection, production planning, and performances for young people. Participation in all aspects of production work through mounting, rehearsing, and performing of plays for touring to area schools, community centers, and other service qgencies. Prerequisite: consent of instructor.
Thr 440 Advanced Acting (3)
The application of acting principles to complex and extended gharacter development. Prerequisite: consent of instructor.
$V_{\text {Thr }} 441$ Seminar in Comedy (3)
A study of comic dramas and theories of comedy from the Greeks to the present.
Whr 442 Seminar in Tragedy (3)
A study of tragic dramas and theories of tragedy from the Greeks $t$ the present.
Thr 455 Seminar in Theatre History (3)
Gonsideration of a particular research topic in theatre historyp each semester. Prerequisite: consent of instructor. PHR 480 DRAmA in PRODUCTIONS $(3)$ ad 0 Summer Program of Theatre Study in Britain
The Department of Theatre, in cooperation with the Association for Cultural Exchange in England, offers an eightweek summer_study/tour-program-in-Great-Britain-Six weeks of the period are devoted to course work in London and in other important theatre centers in Britain while two weeks are free for touring. The academic program is drawn from the following courses. The program is not offered every year.
Vhr 305 Creative Drama in England (3)
Philosophies and techniques of innovative British developments in the creative use of drama in the community generally and for young persons in particular with practical applications in schools and community theatres. Direct and filmed observations; discussions of the approaches of Slade, Way, Heathcote, and others; visits to leading studios and Theatre-in-Education units. Offered only in Great Britain in connection with the university's-summer-program-of theatre study ab̄road.

- Hr 320 The British Dramatic Tradition (6)

An investigation of those social and cultural factors that have most affected the evolution of drama in Britain from its Medieval origins to the Second World War and of the impact of these forces upon the most influential British playwrights. Offered only in Great Britain in connection with the University's Junior Term of Theatre Studies in Great Britain.

Thr 326 The Dramatic Art of Pre-Restoration England (3)
Investigation into the complex literary, aesthetic, religious, and architectural influences shaping the form of the living theatre in the important English dramatic epochs prior to 1660. Research materials drawn from major British libraries, museums, and monuments and from actual productions. Offered only in Great Britain in connection with the university's summer program of theatre study abroad.

Thr 339 Dramatic Media in Contemporary Britain (6)
A comparative study of divergent dramatic forms-theatre, radio, television, film-examining the specific technological innovations, design concepts, conventions, and acting techniques of these forms. Offered only in Great Britain in connection with the University's Junior Term of Theatre Studies in Great Britain.

## Thr 345 Theatre Workshop (3)

Theoretical and practical training in interpretative acting techniques for the traditional and contemporary British play. Intensive work in voice, movement, improvisation, and scene study with studio productions of selected scenes. Offered only in Great Britain at the Central School of Speech and Drama, London, by members of the Central School staff in connection with the university's summer program of theatre study abroad.

Thr 390 The Contemporary British Theatre (3)
An evaluation of current trends in British playwriting and dramatic production drawn from class discussions, lectures by leading British theatre practitioners, and direct observation of approximately twenty_significant plays_currently being-produced-in-London, Stratford, and other theatre centers in Great Britain. Offered only in Great Britain in connection with the university's summer program of theatre study abroad.

# School of Business 

William K. Holstein, Dean
Donald D. Bourque, Associate Dean
Gerald W. Parker, Assistant Dean
Helen Pelersi, Assistant to the Dean
FACULTY: T. Anderson, D. Arnold, D. Bishko, I. Bonawitz, D. Bourque, W. Bray, C. Buss, H. Cannon, T. Dandridge, W. Diamond, R. Dillon, H. Farley, J. Fisk, J. Fonseca, R. Forbes, A. Frankle, A. Hierl, J. Hlavacek, J. Hoagland, W. Holstein, B. Ismail, R. Kaiser, R. Klages, F. Kolmin, H. Lee, J. Louderback, J. Meehan, J. Miller, R. Minch, L. Mohan, W. Nemeroff, B. Oliver, J. O'Connor, H. Pazer, E. Petri, I. Sabghir, P. Seagle, M. Sewall, W. Sheehan, H. Smith, L. Solnick, A. Sweetser, D. Williams, L. Wright.

ADJUNCT FACULTY: T. Bravos, R. Frey.
The School of Business offers degree programs at the undergraduate and graduate level which prepare students to enter managerial and professional careers. All programs are accredited by the American Assembly of Collegiate Sehools-of-Business.

At the undergraduate level, the School offers Bachelor of Science degrees in Accounting and in Business Administration. Admission to the school at the undergraduate level is by formal application and is open to the best qualified students who have completed 56 or more degree applicable credits with five of the following courses or their equivalent (1) Acc 211, (2) Eco 100 a, (3) Eco 100 b, (4) Msi 215, (5) Msi 220, (6) Psy 101 or Soc 115. Contact the Office of the Associate Dean for information and forms necessary for application.

At the graduate level, the school offers a Master of Business Administration (M.B.A.) and Master of Science in Accounting (MS). The M.B.A. is a two year program open primarily to non-business undergraduates. A combined BS/MBA program (five years) is available to business students (Preprofessional Program) and a similar program is available to selected non-business undergraduate majors. The M.S. program is a one year program for those students with undergraduate degrees in accounting and a two year program for those with non-accounting undergraduate de-
grees. Consult the School of Business graduate bulletin for details on graduate programs and courses.

The following undergraduate courses offered by the School of Business are considered liberal arts and sciences courses for purpose of degree requirements for the B.A. or B.S. degrees: Law 200, 220, 320, 427; Mgt 341, 343, 354; Msi 215, 220, 435; Mkt 351. Only six credits from these courses may be treated as liberal arts credits by accounting or business majors.

In the School of Business, course grading is based upon comprehension of specific course content as well as the ability- to effectively communicate orally and in writing. Junior standing is normally required to take courses numbered 300 and above. Business core courses numbered 200 are a general prerequisite for courses in the School numbered 300 or above.

All courses listed in this section are preceded by the school's letter 'B'.

## ACCOUNTING PROGRAMS

Two accounting programs prepare students for careers in professional accounting. The accounting major is open to juniors entering the School of-Business. The Departmental Program is a very selective program open only to a small number of freshmen. Both programs are registered with the Division of Professional Education, State Education Department and meet the educational requirements to become a Certified Public Accountant.

## Degree Requirements for the Major in Accounting

Bachelor of Science


Social and Behavioral Sciences

- Psy 101 Introduction to Psychology. 3
- Soc 115 Introduction to Sociology . . 3
- Eco 100 a \& b Principles of Economics .... 6

Eco 300 Intermediate Theory I:
Microeconomics ........ 3
Eco Elective three credits from:
Eco 301 Intermediate
Theory II:
Macroeconomics .... 3
Eco 350 Money
and Banking ..... 3
Eco 355 Public
Finance ......... 3 3
Mathematics and Computer Science
Calculus (Mat 106, 107, 112, or 116) ............ 3
, Csi 203 Data Processing ........... 3
Behavioral Science for Organizations ........... 3
Liberal Arts Electives . . . . . . . . . . . . . . . . . . . - $\quad \frac{24}{60}$

Business Core Requirements:
/ Acc 211-222 Financial and Managerial
Accounting ............. 6
' Msi 215* Computer Applications in
Business ................ 3

- Law 220 Business Law .............. 3
- Msi "220* Introduction to Business

Statistics ................ 3

- Fin 300 Financial Management .... 3
- Fin . Elective in Finance ....... 3
- Mkt 310 Marketing Principles and Policies ......... 1....... 3
v Law 321 Law of Business
' Msi 330* Operations Research
Applications ............ 3
Mgt 481 Problems in Business Policy. 3
\Msi 322 Statistics for Business
Research ................ 3
${ }^{*}$ Msi 230a and b may be substituted for Msi 215, 220, 330.

Additional Accounting Requirements:
Acc 311-312 Financial Accounting $\begin{aligned} & \text { Theory ................ } 6\end{aligned}$
Acc 331 Cost Accounting ........... 3
Acc 411 Advanced Accounting ..... 3
Acc 441 Income Tax Accounting ... 3
Acc 461 Auditing .................. 3
Electives in Accounting ... 6


## DEPARTMENTAL PROGRAM IN ACCOUNTING

A program open to selected students wishing to concentrate in professional accounting starting in their freshman year.

## Degree Requirements for the Departmental Program in Accounting

## Bachelor of Science



TOTAL LIBERAL ARTS

Business Core Requirements:
Acc 211-222 Financial \& Managerial Accounting ............. 6
Mkt 310 Principles of Marketing ... 3
Mgt 341 Behavioral Science for Organization ........... 3
Fin $300 \quad$ Financial Management .... 3
Fin - Finance Elective .......... 3
Law 220 Business Law .............. 3
Law 321 Law of Organizations ..... 3
Mgt $481 \quad$ Problems in Business Policy 3
Msi 322 Statistics for Business ..... 3

Accounting Requirements:
Acc 311-3.12 Financial Accounting Theory ................. 6
Acc 331 Cost Accounting .......... 3
Acc 411 Advanced Accounting .... 3
Acc 441-442 Taxation ................... 6
Acc 461 Auditing ................... 321.

Unrestricted Electives
Total Business and Accounting 9
Total credits (minimum) ............. . $\overline{120}$

## BUSINESS ADMINISTRATION PROGRAM

The programs in Business Administration, combining a major-second field sequence, are designed for students planning careers in general management, management science, marketing, and finance.

## Degree Requirements for the Major in Business Administration

## Bachelor of Science



Approved Concentration:
Management, Marketing, Finance,
Management Science, or Combined ..... 15-18
Business Elective ........................... 3
Unrestricted Electives ....................... 9-12
Total credits (minimum) ............. $\quad 120$

[^11]
## PREPROFESSIONAL PROGRAM

This program is designed for outstanding students who wish to obtain the M.B.A. degree in five years. A formal application to the coordinated senior year should be submitted during the second term of the junior year. Students must submit a Graduate Management Admission Test score as a part of their application. Those interested in this program should consult with the Director of the M.B.A. program concerning their eligibility for the program. A similar program has been developed for those in Mathematics interested in obtaining a B.S. and M.B.A. in 5 years.

Liberal Arts Requirement:

## Credits

60
Students should complete the following Liberal Arts courses to be considered for admission to the program: A Eco 100 a and b (6), A Mat 107 (3), A Psy 101 or A Soc 115 (3).

| Business Core Requirements: |  | Credits |
| :---: | :---: | :---: |
| Msi 322 | Statistics for Business |  |
|  | Research | 3 |
| Mkt 310 | Marketing Principles and Policies | 3 |
| Law 200 | Legal Environment of |  |
|  | Business | 3 |
| Msi $215{ }^{*}$ | Computer Applications in Business | 3 |
| Msi 220* | Introduction to Business |  |
|  | Statistics . . | 3 |
| Acc 211 | Financial Accounting | 3 |
| Fin 300 | Financial Management | 3 |
| Acc 222 | Managerial Accounting | 3 |
| Msi 330* | Operations Research |  |
|  | Applications .... | 3 |
| Mgt 341 | Behavioral Science for Organizations | 3 |

*Msi 230 a and b may be substituted for Msi 215, 220, 330.
Additional Business Requirements:
Bus 527 Labor Relations ..... 1
Bus 522 Organizational Decision Making ..... 1
Bus 511 Organization Theory ..... 1
Bus 515 Bayesian Statistics ..... 1
Bus 523 Forecasting ..... 1
Bus 582 Business Simulation Models ..... 1

|  | 6 |
| :---: | :---: |
| Total | 36 |
| Unrestricted_Electives*** | 9 |

Second Term of M.B.A. Program ..... 15
Second Year of M.B.A. Program ..... 30 ..... 45
Total credits (minimum) ..... 150

## Accounting

## Acc 211 Financial Accounting (3)

Basic principles of accounting theory and practice, nature of assets and equity; income measurement and statement preparation.

Acc 222 Managerial Accounting (3)
Emphasis on the uses of accounting data by management. Budgeting, cost concepts and analysis, accounting systems, price level changes, cost-volume-profit relationships and funds flow analysis. Prerequisite: Acc 211.

## Acc 311 Financial Accounting Theory I (3)

An intensive study of basic accounting theory and practices with emphasis on balance sheet accounts and their interrelationship with income statement accounts with appropriate reference to applicable APB and FASB opinions. Prerequisite: Acc 222.

## Acc 312 Financial Accounting Theory II (3)

Accounting theory relating to the measurement of assets, liabilities, and capital structure; their presentation in statements of financial position and their interrelationship with income statement accounts. Analysis of changes in financial position and review of applicable APB and FASB opinions. Prerequisite: Acc 311.

## Acc 331 Cost Accounting (3)

Cost accounting theory and practice including job order, process and standard cost systems. Joint and by-product costing.
Prerequisite: Acc 222, Msi 215 and 220.
*Suggested electives Msi 361 and Eco 350.

## VAcc 411 Advanced Accounting (3)

Problems in accounting for price-level changes, estate administration and trusts, statement of affairs, receivership accounting, and pdrtnerships; introduction to consolidations. Prerequisite: Acc 312.
Acc 413 Advanced Accounting-Consolidations (3)
Problems involving intercompany profits, changes in equity, reciprocal affiliations, international accounting, and alternative treatments of acquisitions (purchase vs. pooling). The impact of SEC reporting and financial disclosures of multientity corporations. Prerequisite: Ace 411.

## Acc 415 selected Topics in Accounting Theory (3)

A critical examination of selected topios in accounting theory through intensive study of current literature and official releases of professional and regulatory bodies. Prerequisite: Acc 312.

## Acc 441 Income Tax Accounting I (3)

Concepts of taxation and of taxable income. Interpretation and application of present tax laws as they pertain to taxpayers. Tax savings and planning. Prerequisite: Acc 211 and Senior Standing or permission of instructor.

## Acc 442 Income Tax Accounting II (3)

Theory and practice of taxation as applied to partnerships, corporate entities, and fiduciaries. Prerequisite: Acc 441.

## Acc 451 Governmental Accounting (3)

A study of accounting for-all-levels-of-government and related institutions; application of basic principles and modern concepts of double entry; incorporation of budget accounts into the accounting system. Prerequisite: Acc 211.

Acc 461 Auditing (3)
A fundamental analysis of auditing and its contribution to financial reporting, with primary emphasis upon the independent public accountant's attest function. The application of audit tools, i.e., systems flowcharting, statistical sampling, and EDP, is integrated with the coverage of audit working papers. Problems of legal liability are introduced and analyzed. Prerequisites: 12 credits of accounting and senior standing.

Acc 481 Financial Information Systems (3)
Analyzing, designing, implementing and evaluating computerbased -and-noncomputer-based financial information systems. Blending and combining accounting, computers, information, management and organization and the systems approach into a unified body of knowledge and practice. Prerequisites: Acc 222 and Msi 215 or equivalent.

Fin 300 Financial Management (3)
Emphasis on the management of funds flow within the corporate framework. Topics include the management of working capital and the evaluation of long-term investment decisions including mergers and acquisitions. Course provides a comprehensive introduction to managerial finance. Prerequisite: Acc 222.

## Fin 301 Corporate Financial Policy and Strategy (3)

The overall orientation of Fin 300 is continued with this course but the focus is on the long-term operation of the firm and on episodic events. Topics include a continuation of capital budgeting with added emphasis of financing for growth, bargaining for funds, and-the-capital-structure. This-is a case course supplemented with keadings, decision analysis, and computer simulation. Prerequisites: Fin 300 and Msi 330.
Fin 333 Investment Management (3)
The principles and techniques of security analysis and investment timing; the formulation of investment policies for individuals and institutions. Prerequisite: Fin 300.

## Fin 375 Money and Capital Markets (3)

This course provides an analytical framework for understanding the dynamics of financial markets and the role of financial intermediaries in allocating funds in these markets. The use of flow-offunds analysis in interest-rate determination is developed, and some emphasis is placed upon the structure and impact of the monetary process, including the role of the Federal Reserve. Managerial aspects of commercial-banking-will-be-introdueed-through-case-studies and a bank-simulation model. Prerequisites: Fin 300 and A Eco 100 b.
Fin 436 Securities Analysis and Portiolio Management (3)
Intensive study of the methods, standards, and techniques of appraising stocks and bonds. Principles governing the management of investment funds and portfolios are developed through case studies. Prerequisite: Fin 333 or permission of instructor.
Fin 455 Corporate Risks and Responsibilities (3)
A study of the preventive mitigation of losses resulting from asset destruction, devaluation, and obsolescence, and from exposures arising from long-term performance contracts. Identification of and protection against wholly or partly transferable risks such as casualties; defalcations; and public, product, and service liabilities, Methods of assuring survival and growth of the organization and development of policies to implement the corporation's social fesponsibilities.
Fin 475 Management of Financial Institutions (3)
Attention is devoted to a managerial approach to the problems of various financial intermediaries, including savings and loan associations, insurance companies, mutual funds, and investment banking firms. The interrelationship between these intermediaries and the nature and structure of specific markets, such as the bond market, the stock market, and the mortgage market, are considered in depth. Prerequisite: Fin 375.


The basic legal concepts around which our society is structured will be stressed. The primary objective of the course is to acquaint students with legal concepts and their applications in modern businéss society. Students should become familiar with concepts, legal procedures, terminology and legal principles in operation.

Law 220 Business Law (3)
The legal principles underlying business relations, including contracts, commercial paper, significant articles of the Uniform Commercial Code and government and business.

## Law 320 Environmental Law (3)

An overview of legal problems in environmental management with emphasis on principles of effective resource management in an industrial society. Prerequisite: Law 200 or Law 220 or consent of instructor.
/Law 321 Law of Business Organization (3)
The legal concept of agency, partnership, corporations and bankfuptcy, Uniform Partnership Act and Business Corporation Law.
Law 421 Law of Property (3)
The law of real and personal property, including mortgages and conveyances, landlord and tenant relationships. Prerequisite: Law 220.
$\checkmark$ Law 422 Trust and Estate Law (3)
Covers presentation of material concerning living and testamentary trusts; analysis of the requirements of a will, including its preparation, execution, and probate; administration of estates of individuals dying with and without wills.
Law 427 Seminar in Business Law (3)
Basic legal reports used in New York State are analyzed. Landmark cases are examined and topics of major interest are discussed.

## Management

## Mgt 341 Behavioral Sciences for Organizational Administration (3)

A theoretical and experiential foundation for constructive administration and leadership is developed through an improved understanding and application of the behavioral sciences. Individual, dyadic, group and inter-group bēhavior are explored within the contest of organizational structure, change and development.
Prerequisite: A Psy 101 or A Soc 115. Students with backgrounds in Organizational Psychology or Organizational Behavior admitted only with the consent of the instructor.

## Mgt 343 Human Resources Management (3)

Study of human resources in work organizations, emphasizing social psychological perspective. Manpower planning, personnel selection, management development, and compensation processes. Related theories of individual and group motivation and behavior. Prerequisite: Mgt 341.


A broad study of American labor-management relations aimed at developing the ability to understand and interpret contemporary labor developments. Particular emphasis on: the growth of labor organizations; comparison of craft and industrial unions; and governmental policy as expressed through legislation as well as administrative and judicial actions.

## Mgt 380 Comparative Administration (3)

Study of management processes in various types of organizations, including manufacturing, public and service institutions. Organizational design, planning, control, human resources management and decision-making with comparable approaches in an intra- and crosscultural framework. Prerequisite: Mgt 341.

Mgt 441 Rewards and Motivation Systems (3)
An examination of processes for relating organizational membership, productivity and rewards both extrinsic and intrinsic. This course will focus on methods for evaluation and comparison of employees at all organization levels. Prerequisite: Mgt 343.

## Mgt 443 Manpower Planning (3)

Study of the quality, quantity and utilization of human resources in the public and private sectors of the economy, relating the human resources within organizations to external work force characteristics, manpower forecasting and organizational planning. Prerequisites: Mgt 343 and Mgt 354.

## Mgt 455 Collective Bargaining (3)

Analysis of the collective bargaining process through the study_of cases dealing with contemporary developments and basic issues such as adjustment to technological change, promotion of labormanagement cooperation, discipline, job assignment and senority. Prerequisite: Mgt 354.

## Mgt 480 Contemporary Problems in Management (3)

Intensive study of contemporary problems. Topics are drawn from managerial problems of technology, organizational design and change, analysis of organizational effectiveness, conflict resolution, management of professional and multinational organizations, and ghrrent issues in individual, group and organizational behavior. Prerequisite: Mgt 343.

## Mgt 481 Problems in Business Policy (3)

Development of an overall management viewpoint, integrating various specialized functions of internal organization with the external economic, social, political and technological environment. Case analysis in strategy formulation and implementation. Business Game. Prerequisite: senior standing required.

## Management Science

## Msi 215 Computer Applications in Business (3)

Concepts of computer systems; hardware and software; the role of computers in business. Systems and program flowcharting; matrix algebra operations; the use of canned programs. Emphasis on programming business-oriented applications in the BASIC language. Not open to students with credit in A Csi 201 or equivalent.
$V_{\text {Msi } 220}$ Introduction to Business Statistics (3)
Fundamentals of statistical analysis oriented toward business problems. Elementary probability theory, frequency distributions, central measures and dispersion, sampling distributions. Classical and Bayesian decision-making, estimation and tests of hypotheses. Prerequisites: Intermediate Algebra or A Mat 100. Not open to students with credit for A Eco 220 or A Mat 108.

## Wisi 230 a \& b Quantitative Foundations for Business (3, 3)

An accelerated course encompassing all the materials covered in Msi 215, 220 and 330. Prerequisites: permission of the instructor based on satisfactory mathematics SAT score or grade in calculus. Msi 230 a is a prerequisite for Msi 230 b .

Msi 322 Statistics for Business Research (3)
A survey of many statistical techniques in a business setting. Probability and sampling distributions. Tests for multiple means and variances. Regression and correlation. Non-parametric methods. Prerequisites: A Mat 107, Msi 220, and Msi 215 or their equivalents.
Msi 330 Operations Research Applications I (3)
Use of operations research models to solve problems in production and distribution. Included will be linear programming, transportation methods, scheduling algorithms, network models, inventory models and forecasting models. Computer based solutions will be employed. Prerequisites: A Mat 107 and Msi 215 or their equivalent.

Misi 331 Operations Research Applications II (3)
Use of analytic models in selected functional areas-finance, marketing, human resources. Topics include calculus-based techniques, simulation, decision-making under uncertainty, heuristic and dynamic models. Prerequisites: Msi 220 and 330 or their equivalent.

## Msi 361 Economics of Business Decisions (3)

A study of the application of economic analysis to problems of business decisions. The topics include cost and demand functions, production functions, market structure, price determination, capital budgeting and optimization of operations under conditions of uncertainty. Special attention is given business forecasts and their relation to policy development and change. Prerequisites: A Eco 100 , Msi 220 and Msi 330.

## Msi 412 Operations Management (3)

Description and study of the methods of planning and controlling operations. The general applicability of the principles of management science to production and service organizations. Prerequisites: Msi 220, Msi 330 and A Mat 107 or equivalent.

## Msi 434 Advanced Deterministic Models (3)

Special topics in linear progxamming, nonlinear progxamming, dynamic programming and deterministic inventory theory with applications in the functional disciplines. Prerequisites: Msi 330 and Msi 331.

## Msi 435 Advanced Probabilistic Models (3)

Special topics in queuing theory, replacement theory, probabilistic inventory theory, Markov chains, simulation and stochastio programming with applications in the functional disciplines.
Prerequisites: Msi 322, Msi 330 and Msi 331.

## Marketing

## Mkt 310 Marketing Principles and Policies (3)

An analytical survey of problems encountered by firms in marketing goods and services; takes a marketing management approach to the solving of problems related to the structure and operation of our marketing mechanism and the functioning of its various parts.
Prerequisite: A Eco 100 a.

## Mkt 312 Marketing Research (3)

Rescarch process as an aid in decision-making in marketing man-agement.-Specific attention is paid to the planning of research and gathering and intepretation of data. Prerequisite: Mkt 310 and Msi 220.

Mkt 351 Buyer Behavior (3)
Analysis of the theoretical foundations of buyer behavior. Emphasis on decision-making processes incorporating fundamental psychological functions, sociological interactions, and consideration of consumer and industrial buyer decision-making as it applies to marketing management. Should be taken concurrently with Mkt 312. Prerequisites: Mkt 310 and A Psy 101 or A Soc 115.

## Mkt 411 Marketing Management (3)

Marketing policies and strategies with special emphasis placed on the integration of product planning, pricing, distribution, promotion, and service in management decisions. The case approach is Utilized extensively. Prerequisite: Mkt 351.

## Mkt 430 Sales Management (3)

Organization of the sales department, developing and training a sales force, sales planning and forecasting, quotas, territories, performance standards, and analysis and control of selling costs.
Prerequisites: Mkt 312.

The development of mass communication strategy. Emphasis on integration of advertising and public relations activities with the firm's over-all marketing efforts. Prerequisites: Mkt 312 and Mkt 351 or consent of instructor.

## Mkt 436 Channels of Distribution (3)

Provides an integrated overview of alternative linkups of producers and middlemen, the institutions involved, and the strategies and control of their relationships and key functions performed by them in their role as channel members. Both theory of channel structure and relationships and management decisions necessary for effective organization are stressed. Prerequisite: Mkt 312.

## Mkt 442 Marketing Research Design (3)

Exploration in depth of the application of experimental designs to the explanation of marketing phenomena. Topics covered proceed from simple classical design of proof through Latin square and factorial experiments. Associated data analysis methods are considered. Student design of research is emphasized. Prerequisites: Mkt 312 and Mkt 351 or consent of instructor.

## Mkt 446 Models in Marketing (3)

Applications of analytic models and decision-sciences techniques to marketing management problems. The design and application of models are examined through case examples and conversational computer programs. Programming language skills are not a presequisite. Prerequisite: Mkt 312.

## Mkt 452 Topics in Consumer Behavior (3)

An in-depth study of several areas of contemporary consumer behavior research. The course involves analysis and comparison of related field and laboratory research: the price-quality controversy, attitude measurement and change, physiological measurement, persốnality, diffusion and communication theories, consumer dynamics. Prerequisite: Mkt 351.

## Mkt 476 International Marketing (3)

Extension of business activities into international markets, curtural, economic and political influences on global business operatons. Prerequisite: Mkt 310. ordinarily falling within the purview of the school. Each project must have a director responsible for its coordination, and sufficient faculty time available for its needs. Application, including a detailed project prospectus, to be made -to the appropriate committee of the school. Approval of relevant areas may also be required when appropriate. Project -approval may be continued for a second term, but further continuation will require acceptance by the ap pro-priate-6ommittee of the school.

Bus 495 Independent Study in Business I (1-3)
An individual study plan in a selected area as approved by the fnstructor and the dean in conference with the student. Written and oral progress reports required. Open only to qualified students, wazae be-repeated-fex-eredit-on-different-topiest $Q$
Bus 496 Independent Study in Business II (1-3)

An advanced or expanded individual study plan in a selected area as approved by the instructor and the dean in conference with the student. Written and oral progress reports required. Successful completion of Bus 495 required.

# School of Criminal Justice 

Vincent O'Leary, Dean<br>John E. Morgan, Assistant Dean

FACULTY: W. Brown, F. Cohen, R. Hardt, N. Hindelang, J. Kress, D. Newman, G. Newman, F. Redl, L. Sherman, H. Toch, R. Warren, L. Wilkins.

All aspects of crime and society's reaction to crime are the concern of the School of Criminal Justice. Considered are the nature of crime and the social or personal patterns that produce or define it; the logic behind the choice of the conduct that will be handled by criminal justice process as only one of the many social control mechanisms; organization and operation of criminal justice system agencies (police, prosecution, courts, correction and rehabilitation, and the special purpose control agencies); and the strategies and personal and technical skills required to implement change in the criminal justice system. Not only are criminal justice systems studied as entities, but emphasis is placed on the relationships between the various elements of the systems.

In addition to filling the ever-increasing demand for persons qualified to do research on and to teach about crime and the criminal justice system, graduates will find positions in all of the operating agencies of the system. Some will prefer line responsibilities, and others staff positions, either in the agencies themselves or with federal officials, governors, mayors, and others having frequent contact with elements of the criminal justice system. Private agencies will also find useful persons with a thorough knowledge of how the system operates.

The School of Criminal Justice offers graduate programs leading to the degrees of Master of Arts and Doctor of Philosophy.

A graduate student in the School of Criminal Justice must meet the requirements and standards of the school and of the Office of Graduate Studies of the State University of New York at Albany and be governed by their regulations.

For a complete description of the programs and courses leading to the master's and doctor's degree, see the current School of Criminal Justice Bulletin.

In response to student demand, the School of Criminal Justice is offering the following five undergraduate courses.

All undergraduate courses offered by the School of Criminal Justice are considered liberal arts and sciences courses for purposes of degree requirements for the B.A. or B.S. degrees.

Courses listed in this section are preceded by the school's petter "C".
Crj 300 Introduction to the Nature of Crime and its Control (3)
A multi-disciplinary analysis of criminal and delinquent behavior. Special attention will be given to the definition, nature and scope of crime-and-delinquency-in the-United States and the explanations which evolved to account for these phenomena; the course will include historical analyses of criminological thought and strategies of social control, with special emphasis on the law, which underpin qurrent (and past) penal codes and correctional practices.

## $\checkmark$ Cri 301 Introduction to the Criminal Justice Process (3)

An analysis of the decisions made in the process whereby citizens become suspects, suspects become defendants, some defendants are convicted and in turn become probationers, inmates and parolees. This is done by analysis of operational practices at the major criminal justice decision stages. Innovative programs and the dilemmas of change in policing, diversion, court administration, sentencing and community correctional programs will also be analyzed.

## Crj 304-Juvenile Deelinquency and Juvenile Justice

A description of the distribution of delinquency, stressing both official and unofficial data as well as a multi-disciplinary overview of major theories of delinquency control. Against this background, the course will analyze the justice system's response to delinquency. A major point of emphasis will be police, courts, and correctional ppactices in dealing with youthful offenders as well as proposals for the reform of those practices.

## 401 The Correctional Process, Prisons and Community Alternatives

An interdisciplinary analysis of trends in the functions and administration of institutional and community processing of the convicted offender. Special attention will be given to current corrections alternatives, issues of screening and classification, and the legal norms and constraints effecting correctional practice. Contemporary reform proposals will be examined. Prerequisites: Crj 300 or 01.

Cri 499 Seminar in Criminal Justice (3)
Seminar will cover a variety of topics in the criminal justice system. Contents of this course will vary at each offering.

## School of Education

Gilbert D. Moore, Dean

In cooperation with the College of Arts and Sciences, the School of Education offers an undergraduate Teacher Education Program leading to provisional certification as teachers in the secondary schools of New York State.

Students who wish to enter the Teacher Education Program normally enroll in one or more professional courses during the sophomore year. However, formal application to the School of Education is usually made during the session preceding junior status. Students who expect to complete 56 credits satisfactorily (C average or better unless otherwise specified) by the end of the session in which application is made, are eligible for consideration. Students whose applications are not accepted will not be permitted to register for "methods" and student teaching.

Because it has been necessary to establish enrollment ceilings for certain teaching majors, satisfying the minimum requirements does not guarantee admission to the program.

## Undergraduate Professional Requirements*

Undergraduate-students-completing a program-in-Teacher Education must complete their major requirements, E Tch 402 or, in the School of Nursing, N Nur 410, and the foling professional sequence:

1. A course identified with the TeachingLearning Process

3 credits
2. A course identified with the study of School and Society

3 credits
3. Professional elective (s) [may be additional course from (1) or (2)]

3 credits
4. The Teaching of Secondary School (sub$j e c t$ ) (the 401 series-commonly referred to-as"methods")

3 eredits
5. Student Teaching in (subiect) $(490$ series,
including a concomitant seminar) $\ldots$ credits

Minimum-Total . . . . . . . . . . . . . . . . . . . . . . . . . 21 credits

[^12]The "methods" course (401 series) is normally taken during the junior year. It cannot be scheduled later than the first session of the senior year.

One term of the senior year is called the "Professional Session." One half of that session is devoted to full-time student teaching. The other half of the session is given over to professional courses and may include a special course in the major field of study.

This program, recently begun, permits the studentwith advisement-to plan a professional sequence which meets his particular needs and interests. At the same time it preserves a structure of preparation which assures the student of the opportunity to master the knowledge and skills requisite to effective performance as a teacher in the secondary schools.

To assist the student in making appropriate selections, the following explanations are offered:

1. The Teaching-Learning Process-includes courses contributing to the student's understanding of adolescent development, the process of learning, appropriate instructional objectives and strategies for achieving them.
Examples of current offerings: E Psy 200 Psychological Foundations of Education; E Psy 440 Evaluation; E Tch 305 Directed Activities in Teaching; E C \& I 405 Individualizing Instruction in the Secondary School; E Cmu 401 Educational Communications Concepts I (See Note 1).
2. School and Society-includes courses contributing to the student's understanding of the American educational system-its development, purposes, organization, and services.
Examples of current offerings: E Fdn 300 Social Foundations of Education; E Fdn 301 Issues in American Education; E C \& I 400 The Program of the Secondary School; His 420 Vocation in American Society; E Soc 411 Education and Social Stratification (See Note 1.)
3. Professional Elective(s)-includes courses which extend the student's knowledge and skills in specific areas related to his proficiency as a teacher. The student may expect to choose from offerings concerned with reading instruction, counseling and
personnel services, educational communications, education of exceptional and disadvantaged, school administration, and psychology of learning.
Note 1. An official listing of all acceptable courses, by category, will be included in an annual advisement bulletin available to advisers and students.

## Student Teaching

R. Andersen, Coordinator<br>A. Lento, Associate Coordinator

FACULTY: J. Crowley, M. Huffmire, J. Kiepper, B. Mohan, B. O'Brien, M. Robinson, D. Schenck, W. Short, M. Tavarozzi, W. Whitney.

The placement of all student teachers is done by the office of the Coordinator of Student Teaching.

The majority of student teaching assignments take place in the schools of the greater Capital District area although at times centers are arranged on Long Island, in Westchester, in northern and central New York.

Students expecting to do student teaching should consult with the coordinator's office in the first session of the junior year. Teacher-Education students in the Junior-Year Abroad programs should inform the student teaching office of their plans during the second session of their sophomore year. The undergraduate student will enroll in one of the 490 Series of Student Teaching. Undergraduate students in mathematics have the option of applying for the Albany Mathematics-Science Teaching Project (AMST). Those who are accepted will enroll in the E 492 Series Methods and Student Teaching. Science majors must apply for the AMST program. Students wishing more information should contact the chairperson of the Department of Instruction.
The_Student Teaching Office-places-applicants-in-schools where they can perform most effectively. This job requires close attention to the academic preparation and personality of the applicant as well as to his wishes for grade levels and type of school. Once the student is assigned, the staff gives him frequent and critical supervision.

At Albany, the student teaching program has been used for experimental patterns in student teaching and in supervision. One of the new ideas emphasized is the field centered, performance-based practicum in teaching.

Registration for Student Teaching during the academic year 1977-78 will take place on the following dates in the School of Education rooms 332 and 333, during the Fall session 1976:

| Major | Dates |
| :---: | :---: |
| English | November 18 and 19 |
| Social Studies | November 29 and 30 |
| Business Education | December 1 and 2 |
| Mathematics | December 3 |
| Languages | December 6 and 7 |
| Science | December 8 |
| Speech Pathology | December 9 and 10 |

## Education Courses

All courses listed are preceded by the school's letter $E$ unless otherwise noted.

The following undergraduate courses offered by the School of Education are considered liberal arts and sciences courses for purposes of degree requirements for the B.A. and B.S. degrees: Bus 351; Che 350, 353, 356; Pec 360; Fdn 300, 301, 405, 497; His 419, 420; Phl 330; Sau 202, 205, 210, 420; Soc 410, 411.

## SPECIALIZED METHODS COURSES

## Eng 401 The Teaching of Secondary-School English (3)

Objectives, motivation, selection of content and materials, organization of classroom procedures, and evaluation of instruction, observation and participation in teaching. Prerequisite: acceptance by School of Education to Teacher Education Program, or consent of Department of Instruction. Two class hours, one laboratory period weekly.

## Flt 401 The Teaching of Secondary-School Foreign Languages (3)

Objectives, selection of materials, classroom procedures, and evaluation. Observation of and participation in a secondary school arranged. Prerequisite: oral/aural facility in target language and acceptance by School of Education to Teacher Education Program, or consent of Department of Instruction.

## Lat 401 The Teaching of Secondary-School Latin (3)

Objectives, motivation, selection of materials, classroom procedures, and evaluation of instruction in Latin. Prerequisite: acceptance by School of Education to Teacher Education Program, or consent of Department of Instruction.

Reports and experimental projects methods of teaching and evaluation of instruction, Selection and procurement of materials of instruction; observation and participation-arranged. Prerequisite: acceptanoe-by School of Education to Teacher Education Program, or consent of Department of Instruction.

Sst 401 The Teaching of Secondary-School Social Studies (3)
Objectives, content, methods and evaluative procedures with emphasis on course organization, lesson planning and conceptual teaching. Observation and participation arranged. Prerequisite: acceptance by School of Education to Teacher Education Program or consent of Department of Instruction.

Mich 402 Teaching about the Nature and Abuse of Drugs, Alcohol and Tobacco (2)
Methods of Teaching about Drugs, Alcohol and Tobacco Abuse including an examination of the nature of these addictives with special emphasis on the hazards and implications for the teenagers and the secondary school. 103 Drug (ese Society (01-0L) Clomp Mat 492 Methods and Student Teaching (Mathematics) (12) (12/77)
Sci 492: Methods and Student Teaching (Science) (12)

## Sst 492 Methods and Student Teaching (Social Studies) (12)

A-field-eentered,-performance-based-practicum-in teaching.- Combines theoretical inquiry, demonstration of knowledge skills, performance skills, and experience related to teaching in appropriate school settings. Normally requires the equivalent of eight weeks of full-time work in the schools. Prerequisites: Admission to teacher education program and permission of instructor.

## STUDENT TEACHING COURSES

490 Student Teaching (9)
Student teaching is a practicum in professional education wherein the student learns by practicing under supervision the theoretical bases of the discipline and the teaching of that discipline. Student teaching is the culminating course for the undergraduate student seeking state provisional certification. Courses in the student teach-
ing-series listed below. Prerequisites: acceptance by the School of Education to the Teacher Education Program, an acceptable grade (minimum of "C" or " S ") in the appropriate 401 series course, an average of " C " or equivalent in all education courses taken prior to student teaching, and registration with the Office of the Coordinator of Student Teaching.
Bus 490 Student Teaching (Business)
Eng 490 Student Teaching (English)
${ }_{\alpha}$ Fire 490
Student Teaching (French)

Ger 490 Student Teaching (German)
Itá 490 Student Teaching (Italian)
Lat 490 Student Teaching (Latin)
Mat 490 Student Teaching (Mathematics)
Rus 490 Student Teaching (Russian)
Sau 490 Student Teaching (Speech Pathology and Audiology)
Spn 490 Student Teaching (Spanish)
Sst 490 Student Teaching (Social Studies)
Mat 492 Methods and Student Teaching (Mathematics) ( $1 \lambda$ )
Sci 492 Methods and Student Teaching (Science) (12)
Sst 492 Methods and Student Teaching (Social Studies)

## Education Elective Courses

(Acceptable in the Professional Sequence)
Adm 422 School Organization for the Classroom Teacher (3)
Principles and problems of school organization and function.
Processes and methods of local leadership and participation by the classroom teacher, including an understanding-of-human relations. The relationship of the classroom teacher to professional personnel fand others.

C\&l 400 The Program of the Secondary School (3)
Origins and present status, analysis of curriculum problems and trends. Process of curriculum change and the teacher's role in it. Students study patterms and materials in their fields of teaching and fonstruct teaching units. Open only to students during the professional term of the senior year.

## C\&l 405 Problems and Procedures for Individualization in the Secondary School Classroom (3)

Ways of individualizing instruction and encouraging independent study in the secondary school with an emphasis on instructional planning, strategies and techniques for directed study, tutoring, and independent study. One classroom session per week plus completion of modules, laboratory work, and independent study required.
Prerequisite: educational psychology and methods of instruction in specific subject area or equivalent.

## C\&i 411 Programs and Resources for Teaching Exceptional Children (3)

An examination of current programs and instructional techniques focusing on the gifted, retarded, auditory handicapped, visually handicapped, special health problems, emotionally disturbed and
the speech handicapped. Definitions and characteristics, developmint of resources and teaching materials, field study.
$V$ Cal 414 Aesthetic Development in the Secondary School
Consideration of the aesthetic dimension of the secondary-school curriculum, intended as an aid to non-specialists in the arts. Development of instructional materials and exploration of appropriate teaching procedures for promoting adolescents' aesthetic developmont.

## C\&1 423 Group Procedures and Techniques in Teaching (3)

An experience-based exploration of ways to promote learning through an application of group process theory and techniques. Emphasis on such skills as: communication, cooperation, discussion, feedback, decision-making, problem solving, self-evaluation. Provision for creative designing of teaching strategies.

## C\&1 425 Major Issues in Teaching the Disadvantaged (3)

Antecedents of the present status of disadvantaged students. Analysis of current programs and materials. Design of teachable material for classroom use.

## C\&1 431 Common Goals of School Subjects (3)

Study of certain curricular aspects which are common to various secondary-school subjects. Such topics as creativity, values, mental health, and moral development will be considered. Topics may change from quarter to quarter.

## Principles and Procedures in School Program Development (3)

Teachers' role in curriculum decisions and instructional procedures in program selection, initiation, conduct and evaluation.

Cru 401 Educational Communications Concepts I (3)
Educational communication via media; taxonomy, characteristics, sources, selection and evaluation of media.

## Cru 402 Educational Communications Concepts II (3)

Introduction to design of messages and simple graphic production tềchniques. Preparation and production of a variety of media.

Cmu 425 Educational Motion Picture Productions:

## Fundamentals (3)

Theory, principles, and-teehniques-of-producing-and-evaluating educational motion pictures for specified audiences. Prerequisite: consent of department.
Cru 435 Educational Television: Production and Direction (3)
Techniques involved in the production of educational television programs. Prerequisite: consent of department.

## Cmu 450 Mass Communication and Education (3)

Implications of mass communication for education; communication revolution; mass media; propaganda; effects of technology on education. Prerequisite: consent of the department.

Cps 421 Introduction to Counseling and Personnel Services (3)
Aims, philosophy, scope and organization of guidance roles of non-specialists and specialists in pupil-personnel; pupil needs in the contest of economic and cultural influences.

## / Esl 001 English Practice for International Students (0)

Designed to give the international student whose native language is not English intensive analysis of and practice in conversation pâtterns, oral and written comprehension, and varied writing skills, to aid him in his regular academic program.

## Fdn 300 Social Foundations of Education (3)

Inquiry into educational policies, purposes and ideas based upon the resources and insights of the humanities and the social sciences. Not open to students with credit for Fdn 200 or $\mathrm{F} \overline{\mathrm{dn}} 301$.

## Fdn 301 Issues in American Education (3)

Study of the structure and function of American education in the light of contemporary problems. Not open to students with credit for Fdn 200 or Fdn 300.

## Fdn 405 Women and Education

A study of women and education using sociological historical sources. An examination of the relationship of women to institutions of education and the new criticisms of the conventional roles of women in education.

Fdn 497 Independent Study in Foundations (3-6)
Independent reading, study, and research in foundations of edu-cation--Prerequisite:-consent-of-department.

## His 419 A Social History of Childhood and Childcaring Institutions in America (3)

A socio-historical examination of the changing status of children and young people in American society with a oritical evaluation of the social institutions and legitimating ideologies which serve to socialize the young for entry into adult society. Intended for juniors and seniors in the teacher education program and for other students interested in the social sciences or in careers in the helping professions.

## His 420 The Meaning of Vocation in American Society (3)

A study of the ways in which the meaning of vocation and/or profession is comprehended in different historical eras. Emphasis is on the social definition of vocation and its effects on educational methods and goals. Several vocations will be studied with special attention to the role of the teacher as a profession. Intended as an elective for juniors and seniors in the teacher education program and for students generally in the university interested in the historical study of education.

## PhI 330 Classics in Philosophy of Education (3)

A study of the classical works that have been written in philosophy of education. Close analysis will be used to examine these major books to see how they express significant and persistent view-
points about philosophy of education. Intended as an elective for juniors and seniors in the teacher education program and for students in the university interested in philosophy and education.
Psy 200 Introduction to the Psychological Process of Schooling (3)
A critical analysis of the psychological process of schooling. An interpretive survey of the literature and research in learning, motivation, development, and intelligence and their impact on American education and society. Observation and participation in school and community agencies are required. Two class periods. Two laboratofy discussion periods. Intended for Sophomores and juniors.
Psy 360 Behavior Problems in the Classroom (2)
Practical techniques and materials for handling the child in the "regular" classroom and in other group settings who has some degree of learning and/or emotional and/or social problems.
Psy 400 Instructional Psychology (3)
An intensive investigation of theories and research in learning and motivation as they apply to classroom instruction. Open to students in the teacher education program. Others by permission of the department.

## Psy 420 Child and Adolescent Development (3)

Theory and research in social, emotional, physical, and intellectual development and its application to instruction. Emphasis on the late childhood through middle adolescence. Open to students in teacher-education. Others-by permission of the department.

## Psy 440 Evaluation (3)

Selection, construction, interpretation of tests and reports. Open only to students during the professional term of the senior year.

## Psy 460 Seminar in Educational Psychology (3)

Selected topics and issues in human learning, motivation, deyelopment and instruction. Open to seniors with permission of the department.
Psy 480 Educational Psychology: Independent Study (3-6)
Designed for students who wish to complete E Psy 400 and/or E Psy 420 as a competency-based, self-instructional program. Regular evaluation and conferences with mentor required. Open to students in teacher-education. Others permission of the department.

## Rdg 402 Reading in Secondary Schools (3)

An introductory study of the theory and practice of reading instruction in secondary schools. Examination of the contexts in which reading occurs, of the various philosophical approaches to secondary reading instruction, and of the major practices and procedures typically employed in reading instruction. There will be opportunities to observe secondary reading programs in the Albany area.

## Soc 300 Introduction to the Sociology of Education (3)

An introduction to the sociology of education. An emphasis on the impact of institutions and various educational problems.

Soc 410 Problems of Urban Education (3)
A critical study of selected classical and modern sociological writings on urbanism and an exploration of the impact of the city setting on educational institutions. Intended as an elective for junigrs and seniors in the teacher education program and for other students in the university interested in the study of sociology and education.

## Soc 411 Education and Social Stratification (3)

An historical and sociological examination of social inequality with particular emphasis on the effect of educational institutions in the creation, maintenance, or attenuation of social stratification.
Prerequisite: A three hundred level foundations of education course or-consent- of -the-instructor.

## Tch 305 Directed Activities in Teaching (3)

For students interested in on-site participation as a teacher's assistant. Seminar on activities of teaching. Requires two half-day sessions each week. Open to students prior to student teaching. Permission of chairperson required for students who have completed student teaching. Prerequisite: consent of Department of Instruction.

## Education Elective Courses

## (Not to be applied to the Professional Sequence)

## C\&1 301 Methods of Procedures in Instructions (3)

Review, analyses, demonstration tryout, appraisal of instructional techniques. Application of theories and research in teaching. Organization, techniques and technology, lesson planning-instruetional system management, diagnosis, individualization, evaluation. May be used in the professional sequence if takén before the specialized methods course.

## Cps 301 Methods-Resident Assistants (2)

Resident Assistants often find, as a result of their position on the residence staff, that they develop stronger motivation to explore theoretical constructs and to develop a broader base of skills in the areas defined below. This motivation reaches beyond typical job expectations, and is, instead related to the R.A.'s own desire for self development. Optimally, this R.A. seeks to bring his own motivations into congruence with his future growth. This course is intended to provide a more specialized program for these R.A.'s beyond the in-service program currently offered to all R.A.'s.

## Cps 302 Methods-Resident Assistants (2)

The student is involved in a group work situation where he will experience his inter-personal relationships, how they affect others, and how he can be more effective in dormitory groups. Emphasis is placed on self-awareness and skill development. Readings deal with group skill, personal development, and awareness of differing values and behaviors that can be seen in students. Student projects focus on research that stimulate knowledge primarily in the following areas: values, attitudes, behaviors, campus crime, conflict resolution, pregnancy and abortion, conflict management. No prerequisite.

## $\sqrt{ }$

## Cps 303 Methods-Resident Assistants (2)

The student continues skill development in dealing with student life in the dormitories. The goal is expansion of personal characteristics and acquiring skills not covered in Cps 301 or Cps 302 . The student is able to choose from a number of options that are presented in seminar form. Relevant reading of the literature along with a experiential format during class time can be expected for most options. Prerequisites: Cps 301, 302.

Edu 300 Independent Study (1-4)
An independent study course with variable credit. Contingent upon the consent of instructor(s) willingness to function as adviser(s) and the Dean, School of Education or his designate(s). The credits may be apportioned in whole or in part as major credit, second field credit, or elective credit as appropriate and as determined by the student's major department.

## Edu 301 Independent Study (5-15)

An independent study course with variable credit designed to provide large blocks of time for independent study projects. Contingent upon the consent of instructor(s) willing to function as adviser(s), and the Dean, School of Education or his designate(s). The credits may be apportioned in whole or in part as major credit, second field credit, or elective credit as appropriate and as determined by the student's major department.

## Edu 390 Community Service Projects (1-15)

Special projects involving community activities and collateral study, to be approved as designated by the Dean, School of Edugation.

## DEPARTMENT OF BUSINESS EDUCATION

FACULTY: C. Blanchard, R. Blodgett, R. Fairbank, R. Knouse, M. McKenna, D. Mulkerne, C. Petitijean, H. Safford, W. Savage, B. Wakin.

The objective of the Department of Business Education, which was formed in September 1970, is to administer undergraduate and graduate programs for the preparation of business and distributive educators. The department offers professional and content courses in business, office, and distributive subjects.

The undergraduate programs lead to a Bachelor of Science degree and provisional certification to teach either business or business and distributive education subjects in secondary schools of New York State. The programs feature a major sequence in business subjects with a second field in education.

## Special Opportunities:

The Department of Business Education in the School of Education has available for students second fields in Secretarial Administration and Systems Administration. Secretarial Administration includes such courses as shorthand, typewriting, and secretarial administration. Suggested courses for Systems Administration include data processing, office administration, and office systems and procedures.

Students will find that they can combine study in a specialized skill with a major in arts-and-sciences. These combinations can lead to interesting opportunities in a variety of positions.

Students who are interested in these second fields should consult with their advisors or with the Department of Business Education.

## Degree Requirements for the Major in Business Education

## Admission

Qualified students may be admitted upon the satisfactory completion of a-minimum-of-56-credits of appropriate undergraduate study at SUNY at Albany, a two-year college, or other college. The student is expected to have completed at least 18 high school units, including at least two years of mathematics (elementary algebra and plane geometry, or equivalents). At least two units of laboratory science are desirable.

A SUNY at Albany lower-division student who is advancing to a business education program is expected to have completed a substantial portion of the liberal arts and sciences requirements and to have started his study in business with appropriate lower-division courses, especially in accounting and office subjects.

A two-year college transfer student is generally limited to a maximum of 64 hours of transfer credit in courses appropriate to the teacher-education program. To minimize scheduling problems, at least 30 credits of transfer course work in the liberal arts and sciences is desirable, including a term each of English composition, literature, speech, natural science, psychology, and sociology, and two terms of economics. Deficiencies in high school preparation in
subjects such as science and mathematics should be made up at the two-year college. Lower-division courses in business appropriate to teacher education programs should be completed at the two-year college in subjects such as accounting, business statistics, data processing or computer science, finance, law, marketing, retailing, communication, shorthand, and typewriting. Study in professional education (e.g. student teaching, methods, foundations) should be deferred to the upper-division level.

Appropriate experience in business is required for certification and may be completed either before or after admission to the program.

## Requirements

All B.S. degree programs require a minimum of 120credits, distributed as follows:
Liberal arts and sciences:

## Electives*

45Required as part of major:
Economics ..... 6
Communications (E Bus 351) ..... 3
Law (B Law 200 or 220) ..... 3
Statistics (B Msi 220 or A Mat 108) ..... 15
Total liberal arts and sciences ..... 60
Mājor requirements:
Core:
Accounting ..... 6
Advanced Typing ..... 3
Data Processing (E Bus 360) ..... 3
Data Processing (E Bus 462) ..... 3
An additional business course, as advised ..... 3 ..... 18 and an ..... 3
1
3
3
Approved concentration such as the following:
Accounting
Accounting ..... 6-9
Law ..... 3-6
As advised ..... 3-6
Distribution
Marketing and Distribution ..... 12
As advised ..... 6
Office
Shorthand and Transcription ..... 9
Secretarial Administration ..... 3
Office Administration ..... 3
As advised ..... 18
Total major requirements ..... 36Professional Education** (second field)Education as advised, including methodsand student teaching18
Free electives ..... 6
Total degree credits (minimum)*** ..... 120
"Elective study in the liberal arts and sciences preferably is distributed over several areas, fields, or subjects, and preferably includes at least one course each of English, composition, speech, literature, natural science, psychology, and sociology.
**In addition to the 18 credit professional sequence, New York State certification requirements mandate competency in drug abuse education. Student must, therefore, elect one of the following courses as part of their total undergraduate experience: E Tch 402, N Nur 410.
***A minimum of one year of appropriate work experience, or equivalent lesser amount of college-supervised work experience, is also required for State certification.

The department offers a variety of courses in business and office subjects and in professional business and distributive education.

## Business and Office*

## Bus 015 Typewriting (0)

Basic keyboard mastery; introduction to business letters, tabulations, and manuscripts. No degree credit.

## Bus 110 Shorthand (3)

Principles of Gregg shorthand, Diamond Jubilee system. Development of reading and writing skills at the pre-typewritten transcription level. Open only to students with little or no previous Gregg shorthand. Laboratory hours arranged.

## Bus 211 Advanced Shorthand (3)

Continuation of E Bus 110. Development of speed and accuracy in reading and taking dictation; introduction to typewritten transscription. Laboratory hours arranged. Prerequisite: E. Bus 110, or equivalent as determined by a placement test.

## E Bus 212 Transcription and Word Processing (3)

The refinement and integration of the arts of word processing, emphasizing the extensive knowledge needed for teaching competency. Designed for business education majors.

## Bus 215 Advanced Typewriting (3)

Development-of_professional skill in preparing office papers and technical material, including statistical matter, under time standards. Prerequisite: E Bus 015, or equivalent as determined by a placement test.

## Bus 270 Mathematics of Business Finance (3)

Financial problems of bank discount and negotiable instruments, cost of credit, partial payments, taxes, depreciation, amortization, phnuities, sinking funds, security transactions.
Bus 319 Administrative Secretarial Problems (3)
Development of the high level of competency in the administrative aspects of secretarial careers needed by business teachers through advanced case problems and simulated office situations. Designed for business education majors.

## E Bus 351 Business ${ }^{\text {Communication (3) }}$

Theory, principles, and-practices_of effective written and oral communications: correspondence, formal and informal reports. Requfired for all business education majors.

## Bus 360 Data Processing 1 (3)

Concepts of processing data for the business teacher, including analysis of principles and current practices in utilizing manually operated business equipment and record management systems. Required for all business education majors.

[^13]E Bus 424 Experience in Office and Distributive Occupations (3)
Cooperative on-the-job training. Part-time work under university supervision, and class meetings twice weekly. Open only to business education majors to meet certification requirements. Prerequisite: consent of department.

## E Bus 440 Office Administration (3)

An overview of the administrative service functions of the modern office in relation to the total organization; managerial principles, concepts, and guidelines applicable for planning, organizing, staffing, controlling, and implementing the office service function, Designed for business education majors.
E Bus 445 Office Systems and Procedures (3)
Development and application of office methods, procedures, and systems. Data control and audit; systems organization and management; fact-gathering and recording systems; fact-analysis and documentation; data systems. Designed for business education majors.

E Bus 462-562 Data Processing II (3)
Essential knowledge for the business teacher in processing data by means of the computer and unit record equipment. Flowcharting; preparation of input data; operational characteristics of equipment; introduction to programming. Required for all business education majors.

## E Bus 495 Independent Siudy in Business, Office, and Distributive Occupations (1-3)

Individualized bibliography and study plan for intensive reading in a selected area approved by the instructor. Written and oral progress reports required. Open to superior seniors in the business education program only, with consent of the department.

DEPARTMENTS OF HEALTH, PHYSICAL EDUCATION, AND RECREATION Women

FACULTY: M. Baum, J. Clark, E. Cobane, C. DeLamater, L. Hoar, P. Mann, B. Palm, I. Rhenish, P. Rogers.

## Men

FACULTY: R. Burlingame, R. Ellis, R. Ford, J. Garcia, M. Hathaway, J. Koelmel, R. Lewis, K. Munsey, R. Sauers, W. Schieffelin, A. Werner, R. White.

## Physical Education Program

The programs in physical education, intramurals, clubs, and inter-collegiate athletics provide a broad experience of instruction, recreation, and competition in a variety of activities. It does not offer a major.

Activity courses are one credit (30 instructional-activity hours), and may meet for a part of a term or for the full term. A student may apply six credits of physical education, 100 and 200 level courses, for credit towards graduation.

Program offerings emphasize individual sports, aquatics, and rhythmic activities. In many activities, instruction is offered at both the beginning and intermediate levels. The appropriativeness of the student's skill level is judged by the instructor.

Coaching registration courses are offered to all nonphysical education certified prospective teachers wishing to coach in secondary schools.

## ACTIVITY COURSES

Pec 120-299 Physical Education Activity (1)
Skills, knowledge and appreciation of the particular activity.
Pe"c 120-129 Aquatics: Beginning
Pec 130-139 Goal Centered Activities
"Peg 140-159 Individual Spórts: Beginning
Réc160-169 Dance: Beginning
Rec 170-179 Team Sports
Pee 200-299 Intermediate, Advanced and Special Skills

## THEORY COURSES

## Pec 300 Recreation Leadership

Use of leisure, the nature of play and its value, and program planning for activities in varied recreational organizations.

Officiating Courses (1)
Theory and practice in,officiating each sport.

| Pec 301 | Basketball |
| :--- | :--- |
| Pec 302 | Basketball |
| Pec 303 | Baseball |
| Pec 304 | Soccer |
| Pec 305 | Softball |
| Pec 306 | Volleyball |
| Pec 307 | Track \& F |
| Pec 308 | Swimming |
| Pec 309 | Football |
| Pec 330 | Lacrosse |

Study of causes of accidents and practice and procedures for handling sick and injured.

Pec 360 Introduction to Dance (2)
The basic evolution of dance, the types of dance, important personalities in the field of dance and their philosophies of dance.
Pec 362 Modern Dance Technique and Composition (2)
Analysis and practice of form, rhythm and movement compositimon. Practice and development of skill in the construction of varipus dance forms; solo and group.

## Pec 393 Assistant Instructor (1)

Assist_in_instruction_of_activity_course, -including- planning, -in-- struction and evaluation.

## Pec 400 Principles and Problems of Coaching (3)

Study of the philosophy and psychology of contemporary sport for it relates to coaching responsibilities in secondary education.
Pec 402 Prevention and Care of Athletic Injuries (3)
Accepted procedures in recognizing, preventing, and caring for common injuries-with laboratory experience. Prerequisite: consent of instructor.


Theory and practice in coaching each sport. $\sqrt{ }$ Pec 410 Football Pec 411 Soccer
$\sqrt{ }$ Pec 412 Basketball
$\sqrt{\text { Pec } 413 ~ W r e s t l i n g ~}$
Pec 414 Swimming
$\sqrt{\text { Pec } 415 ~ T r a c k ~}$

- Pec 416 Baseball
$\sqrt{ }$ Pec 417 Lacrosse

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PECGII8 THRU +TE COACH SOFT
Pec 419 Volleyball
Pec 420 Women's Gymnastics

Evaluation and analysis of a person's physical fitness. The development of program options and understandings for personal adult fitness assignments, written reports and class discussions. The human resource is one of our natural resources.

## Pec 450 Women and Sport (3)

Historical and current perspective on women's role in sport; curtural, ethnic and economic factors; past and present leaders, societal attitudes.

## Health Education Program

This program is designed to deal with current personal problems of the student, problems that are likely to arise with marriage and family living, and with personal safety and emergency care.

## Che 350 Crucial Health Problems (2)

Accidents, drugs, emotional problems, sexuality, social diseases.
Che 353 Family Health Problems (2)
Family planning, pregnancy, nutrition, compatibility, diseases, geriatrics.

## Traffic Safety Program

## Richard D. Ellis, Director

The State Education Department requires that all applicants for provisional approval to teach secondary school and adult continuing driver education (1) be certified in or eligible for secondary school teaching, (2) have an acceptable driving record, and (3) have completed Tsp 450 and Tsp 451; in addition to these prerequisites, undergraduate applicants enrolled in university programs leading to secondary certification will have preference. Permanent approval is granted after the successful completion of Tsp 552, a graduate level course that is open to qualified seniors. Recommended prerequisite: Tsp 350, Principles of Accident Prevention.

## Traffic Safety Education Courses

Visp 051 Driver and Traffic Safety Education (0)
A complete program of classroom and laboratory instruction for students without drivers' licenses; taught by students enrolled in Tsp 451.
Tsp 350 Principles of Accident Prevention (3)
History and development of the interdisciplinary derived factors and theories of accident causation and prevention; including the areás of motor vehicles, home, work, recreational and consumer

## Tsp 450 Trafic Safety Education (3)

Analysis of the traffic accident problem; knowledge, attitudes and skill factors essential for safe and efficient operation of motor vehfoles; survey of materials and methods in both classroom and lab ratory instruction.
Tsp 451 Traffic Safety Education (3)
Classroom and laboratory teaching techniques for the driver and traffic safety educational program; supervised student teaching. Prerequisite: Tsp 450 and consent of department.

## DEPARTMENT OF SPEECH PATHOLOGY AND AUDIOLOGY

FACULTY: P. Bianchi, P. Boomsliter, E. Brayton, C. Fasulo, R. Ferguson, C. Harris, S. Hart, R. Hewitt, J. Liebman, C. Marchewka, D. Miller, C. Pelone, C. Rosenthal, M. G. Ross, R. Solomon, J. Muller-Vogt, W. Watson, C. Westby, J. Wood.

The purpose of the Department of Speech Pathology and Audiology at the State University of New York at Albany is to prepare students to effectively serve people with communication handicaps. The department offers two programs leading to a B.S. degree in Speech Pathology and Audiology. The Teacher Education Program provides the opportunity for one session of clinical practice and one quarter of student teaching and yields provisional New York State Certification as Teacher of the Speech and Hearing Handicapped. The General Program requires two sessions of work in the clinical setting; it does not yield State certification. Both programs provide the basic preparation for the fifth year degree program necessary for American Speech and Hearing Association certification.* The curriculum is an integrated and sequential program which-is-designed-to-be-eompleted-in-four-academic-years. Transfer students or students electing the program in their junior year must plan on five sessions to complete the program.

Since the department's main focus is in the development of the outstanding clinicians, the academic and clinical aspects of the program are rigorous. Clinical placements are made in the University Clinic, which services the SUNYA community; Northeastern New York Speech Center, which serves children and adults with speech, language, voice, and hearing disorders; and in local hospitals and centers of the handicapped. Student teachers are placed in public schools in the Albany area and other areas of New York

[^14]State. Due to the location of these placements and the itinerant nature of the public school speech and language clinician, students require the use of a car during their student teaching quarter.

Students interested in majoring in Speech Pathology and Audiology should understand that clinical and student teaching placements and supervisory staff are limited and that it may not be possible to accommodate all who wish to enter the major. Students whose overall qualifications appear to offer greatest promise of success in the professional opinion of the department will be selected. Students seeking admission to the department will be asked to demonstrate' basic competencies in reading, writing, and speaking skills. A personal interview with faculty of the department is also required.

## Degree Requirements for the Major in Speech Pathology and Audiology *

## General Program

B.S.: A minimum of 65 credits, 47 credits for the major and-a-second-field-of-18-credits-as-advised-by-the-department or in Psychology to include: A Psy 101, A Psy 203 or E Psy 420, A Psy 214 and nine credits as advised (suggested courses A Psy 270, 327, 338, 380, 382; E Psy 360, 520, 521, 560).

Sau 201, 202, 205, 210, 250, 321 a and b, 327, 351, 420; four credits of Sau 370; two credits of Sau 371; Rco 203; six additional credits as advised in Speech Pathology and Audiology; a professional sequence consisting of Sau 470 and 427.

## Teacher Education Program (Teaching the Speech and Hearing Handicapped)

B.S. Degree: 40 credits in the major to include: Sau 201, $202,210,250,321$ a and b, 327, 351, 420; two credits of Sau 370; one credit of Sau 371; two of the following: Rco 203, Rco 204, Rco 208, Thr 207 (or 302); six additional credits as advised in Speech Pathology and Audiology; a second field of 18 credits as advised by the department or in Psychology to include: A Psy 101, A Psy 203 or E Psy
*No degree will be awarded in this program after August, 1979.

420, A Psy 214 and nine credits as advised (suggested courses A Psy 270, 327, 338, 380, 382; E Psy 360, 520, 521, 560); and a professional sequence of 19 credits consisting of: an educational course identified with the Teach-ing-Learning Process (3), an education course identified with the study of school and society (3), and a professional term which includes E Sau 470, 427 and 490.

Sau 003 Spoken English for Foreign Students (0)
Instruction and practice in the sounds and patterns of conversational American English for the foreign student; intensive work in ear training and in such features of spoken English as juncture, stress, sequence, and the dialogue patterns of the language in connected speech. Admission only by permission of the instructor. Does not carry degree credit.

## Sau 201 Structure and Functioning of the Speech Hechanism (3)

The basic anatomy of the ear, the larynx, and the other bodily organs subserving speech. The principles of vital functions as they are modified to make speech possible.

Sau 202 The Rhonetics of American English (3)
Basic principles of descriptive phonetic study, non-instrumental phonetic investigation and representation of pronunciation using the International Phonetic Alphabet; ear training; practice in phohetic transcription.

Sau 205 Voice and Diction (3)
A study of the principles of voice and speech production, including breath control, resonance, variety and expressiveness, articulation, and pronunciation. Emphasis on the improvement of the student's voice and speech.

Sau 210 The Linguistic Study of Speech Development (3)
Linguistic analysis and interpretation of the normal learning sequence underlying individual speech. Stress upon acoustic differentiation as exemplified in American-English dialect patterns, in intonation, and in disordered speech.

## Sau 250 Audiometric Testing (3)

Principles of measurement in psychoacoustics. The equipment, techniques and interpretation of auditory measurement, including practice with pure tone, speech, and other audiometric testing methods.

## Vau 320 Essentials of Speech Correction (4)

Sensory and motor factors in speech learning: characteristics of disordered speech; appropriate remediation techniques. Prerequisite: Sau 201. Not open to majors in Speech Pathology and Audiology.

## Sau 321 a Speech Correction (3)

The study of developmental processes affecting acquisition and development of language and the effect of deviations in producing disordered language. Prerequisites: Sau 201, Sau 202, and Sau 210.

Students must earn a grade of $\mathbf{C}$ or better to be eligible for clinical practice.
Sau 321 b Speech Correction (3)
The diagnostic and therapeutic aspects involved in devising programs for a variety of speech and language disorders; special emphasis on the developmental processes of behavior, the therapeutic process and application of appropriate methodology; observation of clinical procedures in the Albany area. Prerequisite: Sau 321. Students must earn a grade of C or better to be eligible for clinical practice.
Sau 327 Clinical Methods (2)
Methods of evaluation of articulation, language, motor coordination and social development. Opportunities for observation and evaluation of therapy sessions, preparation of lesson plans and case summaries, and the establishment of short range goals will be provided. Activities for articulation and language remediation will be discussed and demonstrated. This course is a prerequisite to E Sau 370. Prerequisites: 201, 202, 210, 321 a-taken concurrently y/th 321 b . Students must earn a grade of C or better to be eligible for clinical practice.
Sau 351 Auditory Training and Speech Reading (3)
The equipment and methods which contribute to the improvement of receptive skills of speech and hearing of handicapped persons; relation to the type and severity of the handicap and to the age, language level, and linguistic capacity of the individual.
Prerequisite: Sau 202 and 250.

## Sau 355 Hearing Loss and Problems of Hearing (3)

The function of the ear in normal and abnormal states. Differential diagnosis in hearing loss; personality and hearing deficit; speech fifficulties associated with hearing loss. Prerequisite: Sau 250.
Sau 370 Clinical Practice in Speech Pathology and Audiology (2-8)
Supervised therapy with functional and organic voice, articulation, hearing, and language disorders in the University Speech Clinic and in other area agencies; weekly group discussions and conferences with the instructor. Sau 371 must be taken concurrently. Open only to majors. Prerequisites: Sau 321 a and b, Sau 327. An acceptable grade, minimum of C , is required and an overall of C in all Speech Pathology and Audiology courses taken prior to/clinical practice.
$\sqrt{ }$ Sau 371 Seminar in Clinical Relationships in Speech Pathology and Audiology (1)
Discussions of therapist-client behavior and related topics central to the processes of clinical improvement in speech, hearing, and language. Must be taken concurrently with Sau 370. Open only to majors. May be repeated for credit.

Independent Study in Speech Pathology and Audiology (2-4)
Individual study on a topic of special interest not treated in courses currently offered. May be repeated for a total of six credits. Prerequisite: plan of study approved by chosen professor and department chairman.

## Sau 420 Theory of Speech Improvement (2)

The relations of speech performance to social and linguistic factors in the child's environment. Methods for compensating for environmental deprivations. Techniques and methods for improving speech development in and through school and community situations.

## Sau-440-Elementary Psycho-Acoustics (3)

Topics from psycho-acoustics and allied fields which explain and exemplify the special conditions of language perception. The approach is instrumental and experimental but not mathematical. Prerequisites: Sau 201 (or equivalent study) and one course in descriptive phonetics.

## Sau 470 Program Organization in Speech Correction and

 Audiology (2)A consideration of the organization and administration of clinical and public school programs in speech correction and audiology. Open only to seniors majoring in Speech Pathology and Audiology.

## Sau 471 Clinical Methods II (2)

An advanced study of clinical methods used in the treatment of communication disorders in children in the clinical and school settings. Open only to seniors majoring in Speech Pathology and Audiology.

Sau 490 STUDENT TEACHING (see Student Teaching courses).
College of General Studies
Hilton M. Power, Dean
Kay C. Hotaling, Assistant Dean
James M. Lewis, Assistant Dean

The College of General Studies provides continuing education opportunities for adults in the Capital District who wish to develop their cultural and intellectual horizons or their professional and occupational competency. Professionals, semi-professionals, tradespeople, craftspeople, former dropouts and retired people are among the more than 5,000 adults who attend the college's credit and noncredit programs. Credit and noncredit courses, seminars, conferences and workshops are offered during the days, evenings and Saturdays on both the Uptown and Downtown Campuses.

Noncredit programs are open to all adults. No grades are awarded, no academic records compiled, and no examinations are given.

The College of General Studies works directly with community, professional and cultural organizations, business, industry, and units of local and state government to make available-the-full-resources of the university through cooperative development of courses, conferences, workshops, institutes and seminars to meet their specialized educational needs.

## Credit Program

Through simple procedures adults are admitted and assisted in registering for undergraduate day, evening, and Saturday credit courses offered by the University. Individual academic advisement is available through the counseling staff of the College of General Studies. Anyone with a high school or equivalency diploma may take courses for credit. Adults who have attended college previously may register as well as those who have not yet attempted college level courses.

Students who hold the bachelor's degree may also register through the College of General Studies in undergraduate credit courses, but these courses may not be applied for graduate credit. No graduate courses are offered in the College of General Studies. Students who wish to enroll in
graduate courses must apply through the graduate admissions office of the appropriate school or college of the university.

A student on academic probation at a previous college or university or one who was academically dismissed, may not enroll in courses through the College of General Studies until one year has elapsed. In addition, any former State University of New York at Albany degree candidate who has not received a baccalaureate degree, is not permitted to enroll in the College of General Studies and should refer to the section in this bulletin on "Readmission Procedure."

College of General Studies students are non-matriculated (non-degree). This means they have not been formally admitted to the University as a candidate for a degree. All the course credits earned while as a General Studies student may be applied to a Bachelor of Arts or Bachelor of Science program once the student has been accepted as a degree candidate. The course credits may also be transferred to other institutions according to their transfer credit policies.

A student who wishes to earn a degree at the university should refer to the procedures described in this bulletin in the section on Undergraduate Admissions, Once-aceepted as a degree candidate, a student may continue to pursue the degree program on a part-time basis.

Students not holding a bachelor's degree enrolled in the College of General Studies are permitted to pursue a maximum of three courses. Students who wish to register for more than a three course load must petition the Dean of the College of General Studies. Those holding a bachelor's degree are not limited in the number of courses which they may take. A veteran may enroll in a full load of 12 credits upon approval by a member of the counseling staff of the College of General Studies.

Individuals may formally or informally audit undergraduate courses on a space available basis through the College of General Studies. Persons over sixty are encouraged and assisted by the College of General Studies to audit courses. Please see "Undergraduate Regulations" in this bulletin for further description of auditing courses.

The offices of the College of General Studies are located in Draper Hall, Room 101, on the downtown campus, 135

Western Avenue in Albany. Most credit classes are held on the new campus, 1400 Washington Avenue.

Members of the counseling staff of the College of General Studies are available throughout each session to advise and counsel adult students. Interviews are arranged between 9:00 a.m. and 4:00 p.m. Monday through Friday. During registration periods the counselors are also available in the evening and on Saturday. The evening and Saturday hours are announced in the College of General Studies bulletin of late afternoon, evening and Saturday credit courses.

Descriptive brochures and detailed information about offerings are available from the College of General Studies, SUNY at Albany, 135 Western Avenue, Albany, N.Y. 12222. For credit course information telephone (518) 4728495; for noncredit information telephone (518) 472-8494.

## Office of International Programs

Charles W. Colman, Director

## Study Abroad Programs

International study is conducted at all levels of the undergraduate program. Education at the university level is by definition universal in nature and therefore internatonal. In order to strengthen the international dimension of all disciplines and to foster a cross-cultural approach, the university makes an international experience available as a part of almost every major.

The State University of New York offers opportunities to study in most of the major cultural or geographical regions of the world. Students at Albany register for Albany residence credit for any of the study abroad programs administered by any of the SUNY campuses. A complete listing of the programs and detailed information about them are available in the Office of International Programs, Social Sciences 322. Students in the academic year programs will normally register for $15-18$ credits per session. Registration for the courses is through the College of General Studies.

The Summer Intensive Language Program Abroad, designed primarily for freshmen, offers an innovative orientation to university study. Entering freshmen may begin their university studies abroad in France, Germany, Italy, and Spain. During the summer's intensive studies of langage and culture, a student may earn an average of four to six credits. Conducted during July and August, the program will allow for a short period of orientation and travel. It also prepares the student for entrance into academic year study abroad programs during later years at the university.

Listed below are the programs administered by State University of New York at Albany on behalf of the State University of New York system.

## SUMMER INTENSIVE LANGUAGE PROGRAM ABOARD

- G-Ins-101-Atbany=-France
.G-Ins-102-Albany-Germany
delete 12/77 GIns 103 Albany-Haty

G-Ins-104-Albany M- Spain $_{7}$


Summer study in French, German, Italian, or Spanish is offered at schools located in countries where the language is spoken natively. It is open to university students at all levels who have complated at least one year of language at the college level or two years at the high school level or the equivalent and who wish to increase their language skits, in the four to six weeks of immersion in the language and culture of another country. Credit is determined by means of proficiency examinations which each student takes at the beginning and at the end of the program. While no specific credit.can-be-guaranteed, students should average four to six credits.

## ACADEMIC YEAR PROGRAMS ABROAD

The academic year programs administered by State University of New York at Albany offer students a wide variety of disciplines. Undergraduates normally register for 30-36 credits during the academic year. Open to advanced undergraduates.

Current program sites are: Jerusalem/Tel Aviv, Israel; Madrid, Spain; Moscow, USSR; Nanyang, Singapore*; Nice, France; Würzburg, Germany.
V Ins 304 a and b Albany-Madrid (15 or 30)
Students_may_enroll-for-any-of-the-courses-offered-by-the-program at the International Institute. Courses are offered in Spanish language, literature, art, history, geography and philosophy.
Prerequisites: junior standing, two years of Spanish at the college level, above average scholastic record, and survey course of Spanish literature. Exceptionally well qualified sophomores may also participate. Students are strongly urged to enroll for the academic year but may register for either term alone.
G ins 305 a and b Albany-Nanyang* (up to 30) Levi dee cuypth Studies. Prerequisites: junior -standing or above, above average scholastic record; Ghtrinese language: no prior knowledge of the language is-Tequired; Chinese Studies: three years of Mandarin Chinese nr-moxe-Program runs for tull academic year.
G Ins 306 a and b Albany-Nice (36).
Qualified students may choose any courses offered at the Universty of Nice. Prerequisites: junior standing, and above average scholastic record. Students must have completed an advanced grammar course or the equivalent. Students who are planning to take courses in French literature must also have taken a two semester survey course in French literature. SUNYA French majors

[^15]will obtain information concerning additional prerequisites from the French Department. Program includes pre-session and academic year.
G Ins 309 a and b Albany-Würzburg (36)
Qualified students may enroll in any course offered at the University of Würzburg. Prerequisites: junior standing, above average scholastic record, two years of college German or equivalent. German majors must also have completed a survey of German literathere. Program includes pre-session and academic year.
G Ins 311 a and b Albany-Israel (36)
Study is offered at the Hebrew University in Jerusalem or Tel Aviv University in Tel-Aviv. Three tracks are offered at both universities including one which permits a program tailored to ${ }^{-1}$ the needs of the student. Prerequisites: sophomore standing or above (Because of prerequisites, sophomores may not qualify for Tracks 1 and 2 of the program at the Hebrew University), above average scholastic aptitude. Proficiency requirement in Hebrew language will depend on the program chosen. Program includes summer Ulpan and entire academic year ( $11 \frac{1}{2}$ months of study).
G Ins 312 Albany-Moscow (15)
A one term exchange program with the Institute of Foreign Languages in Moscow offers qualified students the opportunity to study Russian language and literature intensively. Enrollment will be limited to ten students per session. Prerequisite: junior standing, above average scholastic record, three years of college level Russian or the-equivalent.

Other State University of New York units offer many additional programs for which State University of New York students are eligible. Students wishing to participate in a program offered by one of the other campuses of the State University of New York will register on the Albany campus if the program is supported by state monies. Students participating in non-funded programs are required to take a leave of absence from the SUNYA campus for the duration of the program. For information on any of these programs and details about registration procedures, inquire at the Office of International Programs, Social Science 322.
$G \operatorname{In} 396$
Studly ABroad Program [12.18)

# School of Library and Information Science 

John J. Farley, Dean<br>Lucille Whalen, Associate Dean<br>Alfred F. Dascher, Jr., Assistant to the Dean

FACULTY: V. Aceto, R. Burgess, J. Farley, R. Halsey, N. Hoyle, J. Llinas, W. Katz, I. Klempner, D. Mitchell, J. Morehead, Jr., L. Orsini, A. Prentice, W. Saffady, G. Stevenson, P. Vaillancourt, L. Whalen.
Since the basic preparation for librarians requires five years of study leading to a master's degree, professional courses in Library and Information Science are usually taken on the graduate level. However, as a means of providing undergraduate students with certain library skills which may be of value in their studies or for the purpose of providing an introduction to the field of Library and Information Science, a number of courses are available to undergraduates.

The School of Library and Information Science offers a broad program of study which prepares students for careers in school, public, college, and special libraries. Undergraduate students contemplating a career in librarianship are encouraged to consult with personnel of the School of Library and Information Science concerning career opportunities and concerning undergraduate preparation for admission to graduate study in library and information science. Such students should also consult the current bulletin of the School of Library and Information Science.

No undergraduate courses offered by the School of Library and Information Science are considered liberal arts and sciences courses for purposes of degree requirements. Lib 203 Introduction to Library Resources (3)

Productive and creative use of library resources; developing bibliographic skills, using general and specialized reference sources, searehing_scholarly literatures,-organizing-the-undergraduate-reseafch paper.
Lif 206 Library Research for Public Policy Issues (1)
A short course designed to assist students in identifying and locating information available in libraries on selected public policy iss hes.

## Hib 301 Introduction to Librarianship (3)

An introduction to types of libraries and library services; the concept of the librarian as a mediator between materials and people. The operation of various types of libraries are studied through planngd field visits.
LFB 350 LIBRARY RESEARCH(1) 912776 281

# School of Nursing * 

Marjorie A. Meyer, Acting Dean

FACULTY: L. Bonser, G. Cardinali, A. Cioppa, S. Daly, C. Francis, M. Hayner, P. Hemmings, S. Kane, D. Major, M. Meyer, D. Moldoff, N. Moore, A. Rudolph, D. Serrone, M. Shipp, E. Simpson, J. Whitaker.

The school aims to prepare students for the practice of nursing, supplying the educational background which can serve as the basis for advanced study in nursing and for professional-growth and advancement through experience. It was established primarily for the purpose of providing a pool of baccalaureate graduates qualified to pursue graduate study leading to specialization for teaching, administration and research.

## Philosophy and Objectives

The faculty of the School of Nursing accepts its responsibility for contributing to the purposes of the university through teaching, research and service. The faculty further acknowledges its responsibility to provide an environment which encourages the student, as-a-member-of-the university community, to develop his potential as a person while preparing for professional practice. The faculty believes this goal is best achieved through an integrated program of liberal and professional studies which facilitates the development of intellectual, social and professional skills.

Learning is an active, self-perpetuating process. It is individual and selective in that each learner brings to it the uniqueness of his own life patterns and goals. The environment in which learning occurs should generate critical thinking, group interaction and self-direction as student and teacher share this experience. This process, in a democratic society, enables each learner to develop an understanding of his rights, his responsibility to self and society, and the comparable rights and responsibilities of others.

The faculty believes that nursing offers a service within a health delivery system, the goal of which is promotion

[^16]of health for individuals, families and communities. The focus of the health care system has moved to encompass the full spectrum of the health-illness continuum requiring a broader scope of services in new as well as traditional agencies. Nurses must be prepared, therefore, to take leadership in identifying and initiating new roles and responsibilities in the delivery of their services. Using the nursing process, the nurse must assess health needs, identify health goals and utilize a variety of resources in making judgments essential to the provision of services. While nursing shares some activities with professionals of other health disciplines, it accepts responsibility for provision of physical care and emotional support, for health counseling and teaching and for case-finding. On this basis, nursing must derive from a broad knowledge of relevant social, natural and applied sciences.

The faculty believes its goals are best achieved through an integrated program of liberal and professional studies offered at increasing levels of complexity throughout the program. To facilitate the integration of knowledge, nursing courses in each year of the program must offer content and clinical experiences interrelating all aspects of nursing in a variety of community settings.

The graduate is prepared to provide and direct nursing care of individuals and groups, to function in a colleague relationship with other health personnel, and to participate in community action programs concerned with health. The graduate is also qualified for advanced study in nursing at the master's level.

The school has developed a curriculum designed to prepare nurses who possess:
I. Understanding of the responsibilities of a citizen in a democratic society and a changing world;
II. Understanding of the dynamic relationship between a profession-and the-society-which-it-serves;
III. Ability to provide, in a variety of settings, a service directed toward the promotion of health, utilizing the nursing process in meeting immediate and long-term health needs.
Further information may be obtained by writing the School of Nursing, State University of New York at Albany, Albany, N.Y. 12222.

## Curriculum

The curriculum leading to the Bachelor of Science degree is an integrated program of 120 credits designed to be completed in four academic years. Students who for any reason need to lighten the course load will require additional time for completion.

Courses in general education and in the nursing major are offered simultaneously throughout the program. During the first two years general education courses predominate; during the third and fourth years nursing courses increase and-general-education-courses-decrease. Liberal arts courses throughout the program are taught by faculty of various departments of the university. Nursing courses are taught by faculty of the School of Nursing with clinical practice in hospitals and other health agencies. The curriculum is planned to provide a balance in the study of social and behavioral sciences, humanities, and physical and biological sciences in addition to required courses in the professional major.

Requirements for the degree in nursing include the following:

| Group I | Nursing | 58 credits |
| :---: | :---: | :---: |
| Group II | Communications | 3 credits |
| Group III | Science and Mathematics must include: | 18-21 credits |
|  | Vertebrate physiology* | 4 credits |
| Group IV | Social Sciences and Humanities must include: | 21 credits |
|  | Sociology | 6 credits |
|  | Psychology | 6 credits |
|  | Humanities | 3 credits |
| Group V | Free Electives | 17-20 credits |

All courses in Group I and Vertebrate Physiology must be completed as prescribed by the school. The balance of credits may be selected by the student from the other groups shown.

Clinical nursing courses begin in the sophomore year. Because of the nature of instruction in nursing, class size

[^17]at this point must be controlled. Candidates for sophomore nursing courses, therefore, are selected from those members of the freshman class and transfer applicants whose overall qualifications appear to offer greatest promise of success in the program.

Nursing courses provide learning experiences of increasing depth, moving from the simple to the complex in all phases of nursing practice as the student progresses through the course of study. All clinical nursing courses require that the student demonstrate satisfactory achievement in the application of nursing knowledge as she plans, ministers, and evaluates nursing care in hospitals and health agencies.

Because of emphasis on family and community nursing and the distances involved in obtaining such experiences, students require use of a car during portions of the junior and senior years.
Faculty of the School of Nursing reserve the right to require a student to withdraw from any nursing courses if such action is in the best interest of the university.
The following undergraduate courses offered by the School of Nursing are considered liberal arts and sciences courses for purposes of degree requirements for the B.A. and B.S. degrees: Nur 100, 211 a and b, 410; Nsc 220, 225.
All courses listed in this section are preceded by the school's letter " $N$."
200 -level courses are prerequisite to 300 -level; 300 -level are prerequisite to 400 -level.
(Nur-210-a-and-b-Nursing.and the Individual-(4, 4) a) $12+77$
Identification and application of scientific principles in clinical nursing. Emphasis is on planning and nursing care in relation to basic human-needs, stress, and adaptive mechanisms. Expexiences with various age groups in selected clinical settings provide oppgrtunity for the practice of fundamental nursing skills, 210 a, pueequisites or corequisites: $230 \mathrm{a}, 211 \mathrm{a}$, Bio $213,210 \mathrm{~b}$ prerequisites: 210 a, Bio 213; corequasites: $230 \mathrm{~b}, 211 \mathrm{~b}$.
Nur 211 a and b The Life Cycle ( 2,2 )
Study of interrelationships of physiologted, 2 psychological and environmental factors as they jrffuence majer phases and devel ppmental tasks in the life of each individual. Provides field experience in the study of a family, Prerequisite for 211 a three credits in Sociology or Psychology.
Nsc 230 a and b Introduction to Clinical Sciences (2, 2)
Principles essential to understanding scientific basis of therapy, incfuding content from nutrition, pharmacology and other clincal sciances.

## Nso-235-Miorobiology-in-Health-and-Disease-(3)

Study of microbiology and body defenses against infection and their applieation-to-nursing action.

## Cancel Nut 300 a and b Contemporary Problems in Nursing (2, 2)

Deals with concepts and skills essential to development of the leadership role in effecting improvement of nursing care. Utilizes systems theory in analyzing health problems and the scientific method as the preferred means of introducing change in nursing practice. Prerequisite: junior standing or consent of instructor.

## Cauce ${ }^{1}$ Nr 350 Nursing and Family I (8)

Deals with scientific rationale underlying comprehensive care of physically ill adults and children and with the application of nursingskills in increasingly complex situations. Opportunities are provided for development of leadership skills, teaching patients and families, and in planning for continuity of care.

Family-centered nursing care in home, hospital and community settings. Provides opportunity for study of individual and group dynamics, behavioral disorders, the child-bearing family, and community health problems. Leadership potential is identified and developed.

## Null 400 a and b Professional Practice Seminar (2, 2)

Deals with patterns of organization of health agencies and health care delivery systems, stressing management theory, planning and decision-making. Assists the learner in transition from role of stu-dent/to-that of practitioner-through-examination of ethical, legal, and other factors inherent in professional practice.

## Nut 460 Nursing and the Community I (5)

Focuses on leadership in planning and providing care to hospitalized individuals with complex nursing problems. Involvement of family and community resources is emphasized. The nurse's role in directing patient care is developed through a team leading experifnce.
Cupel Nuid 470 Nursing and the Community II (5)
Aims to prepare the student for first level community health practice. Provides learning experiences to develop leadership skills necessary for the care of multi-problem families. Emphasizes use of the epidemiological method, and of community resources as well as the nurse's role in functioning within an interdisciplinary team.
Nun 480 Special Problems Practicum (2)
Study of nursing problems related to areas of special interest, abilities, and goals of individual students. Involves independent reading, investigation, and practice under direction of faculty member or committee. Prerequisite: Dur 460 or Sur 470.

## Other Courses

## These courses are designed for non-nursing majors.

N'se-220 Introduction to the Drug Problem (3)
caucelsp.77
Causes and effects of drug abuse. Deals primarily with "street drugs" available to American youth, clarifying misconceptions and discussing treatment-modatittes for the chronic user.
Nsc-225-Family and Communty-Nütrition (3) Cevecel S. 7.7
Study of effects of hunger and malnutrition at various points in the life cycle, with exploration-of-ways to-improve-nutrition in all soiatgroups.

Nut 410 Drugs in American Society (3)
Delete
An introduction to the basic principles of drug action-and to a consideration of drug abuse. Lectures and discussions will explore the physiological and psychological hazards of indiscriminate use of drugs, drug testing and drug advertising-Saciological, legal and ehtical implications, of that role in contemporary Amertcan-life are stressed. Prerequisites: two biology courses and one psychology or sociology-oturse.

## Graduate Level Courses for Non-nursing Majors:

## Nus 510 Drugs in American-Society (3)

The scientific principles of drug interaction with biological syn. tems-will-be-analyzed in relationship to contemporary drug abuse. The physiological and the psychological-hazards of indiscriminate drug use will be related to American life today. Evaluation of the role of drugs in society and the legal and ethical implications of new drug development will - en considered. Prerequisite: two biology courses or one course in psychology or sociology.

## Nsc 520 Human Sexuality (3)

Interdisciplinary course dealing with basic concepts of human sexual development and the bio-psycho-social dynamics influencing Sexual behavior throughout the life cycle.

# Graduate School of Public Affairs 

L. Gray Cowan, Dean

Sandro A. Barone, Assistant Dean

## Department of Political Science

FACULTY: C. Astiz (Chairman), J. Brigham, C. Brown, L. G. Cowan, M. Edelman, W. Fiser, W. Goldstein, J. Gunnell, R. Hedges, E. Hoffmann, B. Johnpoll, J. Knight, A. Magid, J. Piereson, L. Powell, J. Riedel, R. Rienow, R. Stout, C. Tarlton, T. Wright, -J.-Zimmerman.

Political science is concerned with the activity and organization of society for the realization of public goals and values. The study of political science is designed to prepare the student for responsible and effective citizenship, political participation, and advanced academic or professional studies. The student of political science may gain an understanding and appreciation of political values, institutions, and processes operating in American, foreign, and international systems.

## Preparation-for-Law School

Recognizing the fact that a lawyer must be politically knowledgeable, many pre-law students major in political science. Individuals engaged in the practice of law automatically are involved in "political" activities because of their dealings with the executive, legislative, and judicial branches of government. The nature and extent of political involvement with each branch, of course, depends upon the type of practice each attorney engages in.

Attorneys are employed as counsels by executive departments and legislative committees of the federal, state, and local governments. Other attorneys are employed as legislative representatives (lobbyists). A high percentage of the members of Congress, state legislatures, and councils in medium and large cities are attorneys. Other attorneys seek election to office as mayors and county executives. With relatively few exceptions, judges are "Learned-inLaw." Students with long range plans for judgeships should recognize that all or some judges are popularly elected in 40 states and "political" considerations influence the appointment of judges.

Pre-law students are encouraged to join the very active Pre-Law Association, which has an office in the Campus Center, and visit the pre-law information room in University College.

For further information about law schools, consult Professor Ronald M. Stout, Departmental Pre-Law Adviser, Dean Robert H. Gibson of University College, and Professor William F. Sheehan of the School of Business.

Students interested in attending law school are advised also to consider attending a graduate program in political science with a major in public law. If the student is interested in public law as it relates to policy areas (environment, urban planning and development, energy, transportation, consumer protection, etc.), a public law graduate program may better facilitate the career aspirations of the student. A type of adjudication growing in importance is administrative adjudication, a subject which can be studied in a public law graduate program.

## Special Opportunities or Programs:

The location of the Graduate School of Public Affairs in the capital city of the Empire State affords students of political science unusual opportunities to observe and study the executive, judicial and legislative branches of the State Government, the second largest public employer in the United States. With a few exceptions, the principal office of each State Department, Division, and Office is located in Albany.

Library resources to support research in New York State Government are excellent. Students have access to the New York State-Library, with-one-of-the-largest collections in the world. State Departments, Divisions, and Offices also have specialized libraries containing information not commonly housed in university or public libraries.

All undergraduate courses offered by the Graduate School of Public Affairs are considered liberal arts and sciences courses for purposes of degree requirements.

All courses listed in this section are understood to be preceded by School's designation "P."

## DEGREE REQUIREMENTS FOR THE MAJOR IN POLITICAL SCIENCE

General Program
B.A.: A minimum of 30 credits in political science including Pos 120.
a. Pos 120 Introduction to Political Science is a prerequisite for other political science courses in the areas of the American Political System, Comparative Political Systems, International Political Systems, Political Theory, Public Administration, and Public Law.
b. Normally, the Department of Political Science requires that those courses to be counted toward the major be taken at SUNYA and that most of them be classroom courses. The department reserves the right to review transfer credit used to complete the major in political science. Independent study courses are to be used to deal with topics not covered by regular departmental offerings and after classroom courses dealing with the same subject have been completed. Prior to registering for independent study, a student must have his proposed research project approved by his adviser and a faculty member willing to direct the research. The student's prospectus must outline the topic of his or her proposed research, indicate-its-importance to political science, and describe the methodology to be employed and methodological problems that may be encountered. Students may not register for independent study unless a copy of the prospectus, properly signed, has been filed with the department. Independent study courses may not be used in lieu of classroom courses.
c. Pad 303 (Public Administration and Management) and Pad 405 (Bureaucracy and Politics in American Society) are acceptable as political science courses in meeting the 30 credit requirements in Political Science.
d. The following courses are strongly recommended for political science majors:

## American Political Systems

Pos 321 State and Local Government
Pos 331 The American Legislature
Pos 332 The American Executive
Pos 334 American Political Parties and Groups
Pos 338 Political Behavior

## 

## Comparative Political Systems

Pos 150 Comparative Governments (Two other area courses from among Pos $351,352,353,354$, 355, 357, 358, 359 and 360)

## International Political Systems

Pos 370 International Relations: Theory
Pos 371 International Relations: Practice
Pos 380 Basics of International Law
Pos 381 International Organization

## Political Theory

Pos 301 Political Philosophy
Pos 307 American Political Theory
Pos 310 Contemporary Political Philosophy
Pos 314 Problems of Political Inquiry
Public Law
Pos 330 The American Judiciary
Pos 335 The American Supreme Court
Pos 426 a and b American Constitutional Law
Each student majoring in political science must file with the department chairman a tentative degree program by the middle of the first term subsequent to the declaration of the major. Majors are encouraged to include in their tentative degree programs at least one course in each of the five fields of Political Science.

## INTRODUCTION AND SURVEY

## Pos 101 Politics and Political Science (3)

A general view and survey of politics and political science. The course is concerned with identifying and characterizing the main coneeptual features of the political dimension of social life.

## Dos 120 Introduction to Political Science (3)

An introduction to the study of politics, focusing on American national government; it includes some discussion of theoretical questions (such as authority, representation, and consent), and some illustrative examples from the area of comparative and international politics. It will satisfy the requirements previously met by Po 101 .
Pos 130 Practical Politics (2)
It is the objective of this course to consider the rich variety of polifical activity with which the individual citizen is most likely to whe in contact in trying to become influential in his own locale.

$$
\text { POS } 140 \text { INTRO PUBLIC POLICY (3) Memo } 2185 / m 291
$$

Relying heavily on available partisan and non-partisan political actors in the capital district for participants and examples, the course will review from both literature and experience, the means by which people alone, in small groups, or through political parties bec̣ome politically effective.

## POLITICAL THEORY

## Pos 301 Political Philosophy (3)

Historical and topical examination of various aspects of the literature of Western Political Philosophy.

## Pos 307 American Political Theory (3)

An examination of the development of -political thought and action in the American experience.

## Pos 310 Contemporary Political Philosophy (3)

An analysis of selected perspectives in the political and social thought of the 19th and 20th centuries.

## Pos 314 Problems of Political Inquiry (3)

An introduction to the discipline of political science and contemporary approaches to the study of politics.
$\sqrt{\text { Pos } 318 ~ S e m i n a r ~ i n ~ P o l i t i c a l ~ P h i l o s o p h y ~(3) ~}$
An investigation of selected topics in political philosophy. Subjects to be announced by instructor. Limited enrollment.
Prerequisite: two courses in political theory or consent of instructor.
Pos 416 Statistics for Political Scientists (3)
An introduction to quantitative analysis of political and social data: methods of summarizing and describing univariate distributions including the use of tables and graphs, measures of central tendency and dispersion; methods of examining relationships between two or more variables; probability, sampling, and inference, computer usage.

## Pos 417 Empirical Data Analysis (3)

The course is designed to introduce the student to a variety of data analysis techniques ranging in complexity from simple table construction and interpretation to casual analysis. Within this range are coding, scale and index construction, multidimensional scaling, levels of measurement, measures of association, correlation and regression, panel, and cohort analysis, and Markov Chains. Prerequisite: Pos 416.
Pos 418 Introduction to Formal Theory (3)
An examination of formal theory as an axiomatic deductive approach relying on a small number of assumptions to "generate empirically testable theories of political behavior. Topics would ińclude: Game Theory, the logic of voting, mechanisms of Social choice, Electoral competition. Emphasis will be placed on the art of model building and applications in the American Political System.

## Pos 419 Seminar in Political Theory (3)

An investigation of special topics in political theory and philosophy. Prerequisite: two courses in political theory or consent of the instructor.

## AMERICAN GOVERNMENT

## Pos 220 American National Government (3)

An examination of the underlying principles and theories of American national government: its institutions, branches of government; relations with other levels of government; constitutional powers and limitations; formal and informal mechanisms of prob-lem-solving, relating the structure of government to the various forms of political activity.

Pos 222 New York State and Local Government (3)
The development of the State constitution; the judiciary and judicial administration; organization, powers and procedures of the legislature; power and duties of the governor; an introduction to the administration agencies. The function, organization, financing and politics of local units of governments.

## Pos 320 American Federalism (3)

A thorough exploration of the basic organizing principles of the American political system including the theoretical, historical, constitutional, and political factors that made and have kept the United States a federal polity for 200 years. A major emphasis will be in the various modes of intergovernmental relations, including such topics as fiscal relations, grants-in-aid, revenue sharing, and including such policy areas as health, education, environmental plotection, and economic planning.

## Pos 321 - State and Local-Government (3)

An analysis of governmental structure, operations, and problems at the state and local level within the states of the United States, yith special attention to policy formulation and administration.

Pos 323 Urban Government (3)
An examination of governmental patterns in major urban areas of the United States. Consideration will be given to the nature of a municipal corporation, forms of government, state-local relations ant urban politics.
'Pos 324 Community Politics (3)
An examination of the bases of power at the local level. Political power, social stratification and technology are discussed within a historical and contemporary context. Recommend prior course in state-and-local-government.
Pos 330 The American Judiciary (3)
The structure and function of the courts in the American political system with special attention to staffing, the decision-making profess, judicial policy-making, and checks upon judicial power.

Pos 331 American Legislature (3)
An examination of the legislative function in the American political system. Inquiry into the sources of legislative power, the institutions involved in formulating legislation, and the people who participate in the legislative process.

Pos 332 The American Executive (3)
The course will focus on the principal institutions, functions, and problems of the Executive branch of government. Emphasis will be placed on the President as political leader, head of state, and administrator, as well as on his relations with Congress.

## Pos 334 American Political Parties and Groups (3)

An examination of the theory, organizational forms and dynamics of political group formation and activity, with special attention given to the political party system, interest groups, political leadership, and electoral behavior.

## Pos 335 The American Supreme Court (3)

This course will deal with the role of the Supreme Court in American political life. Topics to be considered-will-inolude: access to the Court; the nature of Supreme Court decision-making; the selection of Supreme Court justices; the relationship between the Supreme Court and the Executive and Legislative branches of government; and the major substantive issues with which the Supreme Court has been


Politically relevant behaviors are discussed in terms of their psychological and sociological determinants. Emphasis on manifest and latent political training in numerous contexts.

Pos 339 Political Socialization (3)
Operating within a behavioral framework, this course deals with political socialization and its relationship to the development of political attitudes,-political-participation, and the maintenance and ohange of political systems. Both theoretical and empirieal-works will be considered.
Pos 365 Government and the Mass Media (3)
A study of the relation of the mass media to the American political process, including an examination of the effect of the mass media on legislative actions, the executive, voting behavior, and the bureaucracy.

## Pos 400 Problems in Urbanism (3)

Independent study in interdisciplinary urban problems chosen by the student in consultation with the instructor. Also open to majors in other social sciences and to qualified upper division students in other disciplines.

Pos 405 (Pad 405)
Bureaucracy and Politics in American Society (3)
See Pad 405.
Pos 426 a American Constitutional Law (3)
Basic cases will be examined in their historical settings and analyzed in terms of legal or constitutional issues and judicial doctrines, including judicial review, separation of powers, division of power, inter-state relations, the power to tax and spend, war powers, and treaty powers.

Pos 426 b American Constitutional Law (3)
An examination of basic cases in their historical settings and analyzed in terms of legal or constitutional issues and judicial doctrines, including interstate and foreign commerce, civil and political pights, the privileges and immunities of citizenship, due process, and equal protection.

Active participation in the legislative process through work in a staff position in the New York State Legislature. Students will also attend a series of occasional seminars to discuss the legislative process and their work experiences; prepare an annotated bibliography indicating a substantial knowledge of the academic literature related to the legislative process; and write a research paper dealing with the legislative process or some aspect of substantive policy deytopment. Pre requisite: Pos 321 or 321.
Pos 434 Campaign Internship (3)
This course is designed for students who wish to work in election campaigns and relate their experience to the academic study of political parties, campaigns, and elections. Each student will be expected to do substantial reading of the academic literature in the field and to write a research paper which relates the campaign work experience to selected theoretical frameworks discussed by scholars in the field. Prerequisite: consent of instructor.

## COMPARATIVE POLITICS

Pos 150 Contemporary Governments (3)
The impact of the comparative study in political theory; the characteristics and development of statehood and power; conditions of stábility; constitutions and the comparative political process.

## Pos 351 European Politics (3)

A study of politics and political change in contemporary Europe, as reflected in ideology, organization, and leadership. Both Western and Eastern Europe will be treated in a common, comparative fyamework.
$V$
Pos 352 Communist Political Systems (3)
The characteristics-of-communism-in-the-modern-world:- the role of the Communist party; the state as a bureaucracy, with special reference to the U.S.S.R; relations among the powers of the comminist bloc and the impact of these relations on the Soviet Union. Pos 353 Developing Political Systems (3)

The characteristics of the developing societies; their problems of constitutional development and governmental organization; the planning of developing economies and the determination of priorities, the tendency towards one party political systems; the development of enterpreneurial and management skills and the use of autonomous institutions and public enterprises.


In depth study of Russian and Soviet internal politics, 1861 to the present. Emphasis is placed on the activities of the Communist Party of the Soviet Union-political, economio and ideologicaland on changing characteristics of the Soviet political system. Equal attention is devoted to the origins of the Communist Party and to the Lenin, Stalin, Khrushchev, and Brezhnev and Kosygin eras.

## Pos 355 Government and Politics in Subsaharan Africa (3)

The course will focus on the relationship between ideologies, institutions, and individuals in African political systems. Implications of these factors for African political behaviors (domestic and international) will be examined.

## Pos 356 The Foreign Policy of the Soviet Union (3)

A survey of Soviet activities in international relations, 1917 to the present. Attention is devoted to the Soviet Union's relations with Western Europe, Eastern Europe, China, the developing nafions and the United States. Contemporary Soviet policy is emphasized. Previous study of Soviet internal politics is desirable, but not a prerequisite.

## Pos 357 Latin American Politics (3)

A study of the domestic political institutions, the forces which shape the quest for power, and the processes by which public policies are determined in Latin America.

## Pos 358-Government and Politics of South Asia (3)

A detailed consideration of the distinctive characteristics and problems of political development in India and Pakistan with emphasis on the post-independence era, national integration, and the politics of scarcity.

## Pos 359 Israeli Politics (3)

In depth study of the political system of Israel: its history, social and political cleavages, governing institutions and persistent problems.

## Pos 360 Contemporary Polltics in the Middle East (3)

An analytical survey of contemporary politics in the Middle East, including political institutions, processes, and major political issues. Particular stress will be placed on the internal variables of Middle Eastern politics.

## Pos 458 Minority Politics in the Third World (3)

Against a background of European and American experience, case studies will be made of the composition and problems of various religious and ethnic minorities; their origins, characteristics, and integration into the social and political systems of the new nations of Asia and Africa in the process of political development. Examples: the Chinese of Southeast Asia, Indian Muslims, and overseas Indians.

## INTERNATIONAL POLITICS

## Pos 370 International Relations: Theory (3)

Attention will focus on the uses of theory in observing the interaction patterns found in the international system. Concepts of equilibrium, conflict and nationalism will be examined. Theoretical pfopositions about power, war and diplomacy will be tested and founter-theories will be formulated.
Pos 371 International Relations: Practice (3)
This course will survey fundamental procedures of interstate and transnational relations. It examines the historical evolution of the international system, statecraft, the use of force, negotiation and diplomacy, alliance formation, and nationalism and imperialism. Note: Pos 370 is not a prerequisite for Pos 371.

## Pos 375 International Organization (3)

The structure and processes of the United Nations evaluated in terms of its historical antecedents and the challenges that face it. The operational foundations of the specialized agencies and such other governmental organizations as are universal in character. Close attention to the forces and interest groups of international scope to which the United Nations and related organizations respond,

## Pos 380 Basics of International Law (3)

An analytical survey of the precedents and limitations of world law. The uses of law for-the-pacifi--settling-of-disputes-and-wars will be pursued with varied texts, cases and documents.
Pos 381 International Organization (3)
The integration of political communities will be surveyed at a regional or supra-national level. An evaluation of the United Nations in theory and practice, will suggest principles of organization that gan be found in NATO, the OAS or the Common Market.
Pos 383 American Foreign Policy (3)
An introduction to the political and strategic dimensions of American foreign policy. Issues considered: revolution, survival and expansion, 1763-1900; the strategies of world power; America, Russia, and the Cold War; the nuclear revolution; U.S. diplomacy during and after the Vietnam war.
Pos 384 Formulation of American Foreign Policy (3)
An introduction to the political institutions and values of the American foreign policy process. Issues considered: American national character; the search for national interests; the role of interest groups and public opinion; the Congress; the Presidency; the military-industrial complex; the policy system in times of peace and Gold War.
Pos 390 Organizing to Combat Global Problems (3)
A systemic review of the organizational issues that confront mankind (population control, development of resources, oceanic degradation, currency stability, etc.) and of the effectiveness of the specialized agencies that try to grapple with them.

Pos 391 Regional Economic and Political Integration (3)
An investigation of regional political and economic groupings, paying special attention to such organizations as the European Economic Community. In pursuit of these objectives the course also addresses itself to the setting of regional integration, situating it in the general process of political development and the wider context of the global system.

## Pos 392 Strategic Studies (3)

An introduction to the threat and use of organized coercion by states in their international relations. Issues considered: professional armies of the 18th century; the industrial revolution and the democratization of national politics; limited wars of the 19th century; European statecraft; Bismarck and Clausewitz; alliance forming and alliance breaking; total war-World War I and World Whar II. Pos 393 Conflict Theory (3)

Attention will focus on contemporary problems in strategic conflict, including game theory, decision theory and the causes of war. Studies will also be made of the varying diplomatic and strategic contexts in which warfare arises.

## Pos 394 Imperialism and Economic Policy (3)

The economic instruments available to the nation-state are becoming more numerous and yet weaker. Intervention in trade, aid and fiscal policy have enlarged the operational scope of the state; yet the opposition that it faces, from multi-national firms and or-ganizations-has-grown-at-a faster rate. The course will focus upon the economics of coercion and the politics of imperialism and international trade.

Pos 498 Independent Study (1-6)
Reading or resarch under the direction of appropriate faculty. Pyerequisite: consent of instructor.
.Pos 499 Senior Seminar (3)
An intensive examination of selected problems of political life. Specific topics will be selected and announced by the instructor when offered. This course may be repeated once if the selected topic is substantively changed.

## Department of Public Administration

FACULTY: H. Adams, D. Axelrod, A. Baaklini, W. Balk, H. Gerjuoy, L. Hawkins, J. Heaphey, J. Heikoff, R. Nunez, J. Plant, O. Poland, R. Quinn, J. Wade, V. Zimmermann.

Public Administration is concerned with the formulation and implementation of governmental policies and programs. The approach of the department is interdisciplinary, drawing on various social and behavioral sciences. The courses focus on such topics as the role of bureaucracy in society, management of finances of the public sector, organizational theory and development, the political and legal environment of administration, and public policy research and analysis.

## Pad 201 Living with Large Organizations (3)

An exploration of basic ideas about people in large organizations, the social structure in such organizations, and how they interact fwith their environment, The final sessions deal with the problems involved in using large organizations to bring about social change.

## Pad 303 Public Administration and Management (3)

An introduction to the field of public administration as its theory and practice have developed in the United States, emphasizing current trends and problems of organization and management in shch areas as personnel policy, budget making, policy research and planning.
Pad 405 Bureaucracy and Politics in American Society (3)
An investigation of how bureaucratic institutions function in the American political system and why they are variously seen as assets or liabilities for a public policy process faced with unprecedented problems in guiding American society through a transition to the next century.

The following graduate courses are open to qualified seniors. (See the Bulletin of the Graduate School of Public Affairs for descriptions.)

## Pad-500 Theories-and-Processes-of-Public-Administration-(4)

(Not open to students who have taken Pad 303.)
Pad 502 Public Administration and the Political Process (4)
(Not open to students who have taken Pad 405.)
Pad 571 National Goals and Public Policy (4)
Pad 572 Program Seminar in Urban Environment Systems (4)

## Program in Public Affairs

FACULTY: Combined faculty of the Graduate School of Public Affairs, including faculty from other schools and departments of the university.

Designed as a graduate program of study in the field of public policy, the program in public affairs offers several undergraduate courses in a variety of topics.

See "Interdisciplinary Second Fields" for a description of the interdisciplinary second field in Urban Affairs.

## Paf 150 Man Against His Environment (3)

A study of ecological, political and cultural forces destroying our environment and threatening the physical and mental well-being and quality of American life. Designed for the university student and the citizen concerned with public affairs.
Paf 200 Social Policy and the Environment (3)
This course will deal with the principal values and institutions affecting the formulation of private and public policies directed toward environmental issues. Specific topics to be discussed include population, lảnd, minerals, water, and air.

## Paf 300 a \& b Environment Legislative Workshop (3-3)

Intensive study of current New York State legislative proposals involving environmental topics. Preparation of factual analyses of these proposals for information for the-legislators-and-the-general public. Prerequisite: consent of instructor.

## Paf 314 Peace Studies Forum (3)

The course is centered upon a series of discussions led by faculty from each of the many disciplines which contribute to an understanding of the problems of violence in international and domestic affairs and to an assessment of the possibilities of non-violent conflict resolution in both spheres. This is the basic course of the second field in Peace Studies, but is open to students who are not pursuing this second field.
Paf 360 Seminar in Journalism (3)
Intended primarily for students interested in a career in journalism, the seminar focuses upon an examination of both practical and philosophical variety of instructional formats, including lectures, discussions, media presentations and field trips as well as presentations by practicing journalists. Prerequisite: consent of instructor.
Paf 390 Forum in Public Affairs (3)
The examination and discussion of selected areas of public policy and topics of current social and political concern. Junior standing and consent of instructor are required.

# School of Social Welfare 



Seth W. Spellman, Acting Dean

Ivan J. Edelson, Assistant Dean
FACULTY: D. Cohen, C. David, M. Didier, A. Klein, D. Lamkin, H. McKinley, M. Miringoff, J. Nelson, S. Nixon, M. O'Connell, C. O'Reilly, S. Pflanczer, R. Rivas, E. Sherman, M. Siporin, S. Spellman.
The objective of the school is to provide professional education in the social services to prepare students for beginning practice in social work under supervision or for graduate study. It also can serve the liberal education needs of students generally interested in the social sciences and/or the human service profession. The advanced degree program (M.S.W.) prepares students for leadership positions within the profession requiring advanced theoretical, practice research skill and/or management and policy analysis skills.

To accomplish its objectives, the school offers full programs leading to the B.S. with a major in Social Welfare and the Master of Social Work degrees. A Ph.D. program in Social-Welfare has been approved-by the-Board of Regents of the State of New York, but is not yet offered by the school.

Both the B.S. and M.S.W. program are accredited by the Council on Social Work Education-the national accrediting agency.

## DEGREE REQUIREMENTS FOR THE MAJOR IN SOCIAL WELFARE

## General Program

B.S.: Within the general credit requirements of a Bache-lor-of-Science,-the-School-of-Social Welfare_advises in the selection of the required 66 credits for a major in Social Welfare.

Of the 66 credits; (a) 15 credits represent general requirements; (b) 30 credits constitute the core requirements for a major in Social Welfare; (c) The remaining 21 credits must be in approved supporting courses.
(a) General requirements ( 15 credits); a minimum of one (1) course in each of the following five (5) areas of study before beginning the major:

1. Fundamentals of Human Biology;
2. Introduction to Human Ecology; or Ssw 200
3. Elementary Statistics;
4. Philosophy;
5. Ssw 210

In addition, it is recommended that prospective Social Welfare majors elect Ssw 290 (Community Service) during the sophomore year.
(b) Core requirements ( 30 credits) of the major in Social Welfare consist of these ten courses: Ssw 321, Ssw 322, Ssw 350,-Ssw 351, Ssw 400, Ssw 401, 'Ssw 402, Ssw 405 , Ssw 406, and Ssw 410.
(c) Supporting social science or other approved courses as advised ( 21 credits):

1. A minimum of 12 credits in one social science: AfroAmerican studies, Anthropology, Criminal Justice, Economics, Geography, History, Judaic Studies, Political Science, Psychology, Puerto Rican Studies or Sociology (of these, six credits must be in upper division courses);
2. A minimum of nine credits in one of the other social sciences, i.e., other than the one in which the above 12 credits are earned.
Finally, credits toward the major for courses with substantially equivalent content of core requirements (Ssw 322 ) and for approved courses require formal approval by the School of Social Welfare. All 300 level core courses for a major in Social Welfare may be open to qualified upper division non-social welfare majors upon approval by the School of Social Welfare. All 400 level courses are restricted to accepted majors in Social Welfare.

## Other Degree Requirements

Students interested in majoring in Social Welfare should be aware that because of the limited number of placements for the field course, it may not be possible to accommodate all who wish to enter the major.

At this time a limitation will be placed on the number of students to be enrolled as social welfare majors.

The major can begin only in the Fall term of the junior academic year.

Those wishing to enter the major must complete all the general requirements for the major indicated elsewhere in this bulletin and have a personal interview with faculty of the School to ascertain their readiness to participate in the program.

Field instruction is an integral part of the total educational process. It affords the student the opportunity to develop, apply, and integrate the necessary knowledge, skills, and attitudes while in direct practice in Social Welfare settings. During the senior year each student is provided field instruction by a qualified instructor in an agency designated by the school. The placements are selected by the school for the student on the basis of his educational needs and, wherever possible, his area of interest. The field placements represent a variety of settings under public and private auspices, and are located throughout the tricities' area of Albany, Schenectady, Troy and adjacent areas. Students are responsible for the expenses involved in traveling to and from placement.

In addition, a regularly scheduled seminar is required as part of the field instruction courses.

The faculty of the School of Social Welfare reserve the right to require a student to withdraw from any Social Welfare course if such action is in the best interest of the Universiy.

The following undergraduate courses offered by the School of Social Welfare are considered liberal arts and sciences courses for the purpose of requirements for the B.A. and B.S. degrees: Ssw 200, 210, 290, 320, 321, 322, 350, 351, 390, 401, 402, 450.
SSw 200 The Social System: Man and His Environment (3)
An introductory survey of culture, society, and personality as the systemic components of human development and functioning: family life, instrumental and expressive groups, formal organiza-
 Ssw 210 Development of Social Welfare as an Institution (3)

Consideration of economic, political, and social changes as they have influenced the development of social welfare policy and programs in the United States. Examination of public policy and private efforts to meet human needs and the function of the social forker in interdisciplinaxy as well as primary social work programs.
Ssw 290 Community Service (3)
Volunteer work in public or private agencies involving different types of service to the community. Six hours per week of actual work in the agency, together with supervised evaluation seminars.

## Ssw 320 Child Welfare (3)

Supportive, supplementary, and substitute child welfare services employed in dealing with the problems of dependent, neglected, delinquent children. Scope, method, problems, trends reviewed with regard to each of the services; child welfare in other countries; sociology of the child welfare worker.

## Ssw 321 Community Organization and Community Development (3)

Familiarity with the basic principles, concepts, and strategies of Community Organization as a method of social work practice. Discussion of the use of both formal and informal community structures in bringing about desirable social change. The distinction between Community Organization-and-Community -Development is explicated. Community assessment techniques utilized in developed and underdeveloped regions will be examined. Prerequisite: for majors only and Ssw 210.

## Ssw 322 Introductory Research Method in Social Welfare (3)

A study of methodological approaches and research techniques in the field of social welfare; problems formulation, research techniques in data collection and analysis. Reviews of current research in professional journals; fundamentals of report writing. Prerequisite: for majors only.

Ssw 350 Community Law and Client Advocacy (3)
Understanding the role of attorneys, social workers, and other advocates in our legal system. Examination of legal rights of clients as parents, javeniles, employees, -tenants, consumers, welfare clients, the aged, and mental patients. Functioning of the courts and administrative agencies in resolving client problems. Legislative advocacy as a tool. Prerequisite: for majors only.

## Ssw 351 Soclal Work with Groups (3)

Social Work with Groups is a course which explicates the social work method called group work. It covers the fundamental knowledge, skills, values, and techniques inherent in the method* Emphasis is placed upon practice. Tracing the stages of group development, the course addresses itself to the role and function of the social worker in each period. Prerequisite: for majors only. as woll as basic professional secial wort values and Ssw. 390 Community Service (3) philosophy.

- Volunteer work in public or private agencies involving service to the community. A minimum of six hours per week of actual time must be spent in the agency, together with seminars examining some aspects of voluntarism and roles of participating agencies.
Prerequisite: Ssw 290.


## Ssw 400 Field Instruction in Social Welfare I (3)

Practical work experience in a social welfare agency or suitable laboratory setting; hours per week are set to meet acceptable professional standards. Action cycles of agency service and simple tasks. Prerequisites: for majors only, and consent of instructor.
sw 401 Human Behavior and Social Welfare (3)
Life cycle tasks from infancy to old age. The maturation process, class differences in social expectations, stress and balance in the maintenance of optimal functioning, the influence of opportunity systems in various culutres and sub-cultures in relation to social welfare. Prerequisite: for majors only.

## Ssw 402 Social Dysfunction (3)

Social effects of chronic problems related to dependency, child neglect, marital conflict, mental illness, retardation, delinquency, the addictions and other deviant behavior. Implications for Social Welfare intervention. Prerequisite: for majors only and Ssw 401.
Ssw 405 Social Welfare Intervention Methods I (3)
Study is made of basic social welfare interventive methods utilized in assisting individuals, families, groups, organizations and logal communities with social problems. Particular attention is given to interviewing with individuals, and groups and to the use of community resources. Prerequisite: for majors only.

Ssw 406 Social Welfare Intervention Methods II (3)
Further study is made of interventive methods and skills. Emphasis is given to the development of applied knowledge and skill in/the helping process. For majors only. Prerequisites: for majors only and Ssw 400, 401, 405.

Ssw 410 Field Instruction In Social Welfare II (3)
Continuation of Ssw 400, with_an_emphasis_on_developing-diag nostic and direct service skills under supervision. Prerequisite: for majors only, Ssw 400 and consent of instructor.
Ssw 450 Independent Study in Soclal Welfare (3)
Independent reading or research on a selected experimental, theoretical or applied problem under direction of a faculty member. Must have written consent of instructor and Director of undergraduate program.

## TYPICAL PROGRAM FOR JUNIORS AND SENIORS

 Fall-Junior YearSsw 321 Community Organization and Community Development (3)
Ssw 350 Community Law and Client Advocacy (3)
Supporting Social Science courses as necessary

## Spring-Junior 'Year

Ssw 322 Introductory Research Methods in Social Welfare (3)
Ssw 351 - Social Work-with Groups-(3)
Supporting Social Science courses as necessary
Fall-Senior Year
Ssw 400* Field Instruction in Social Welfare (3)
Ssw 401* Human Behavior and Social Welfare (3)
Ssw 405* Social Welfare Intervention Methods (3)
*Courses must be taken concurrently.

## Spring-Senior Year

Ssw 402**-Social-Dysfunction (3)
Ssw 406** Social Welfare Intervention Methods II (3)
Ssw 410** Field Instruction in Social Welfare II (3)
** Courses must be taken concurrently.

## State University of New York

State University of New York, which celebrated its 25th anniversary in 1973, is unique in its organization and the breadth of its educational mission. It is the largest coordinated, centrally managed multi-level system of public higher education in the nation.

In a recent report to the University's Trustees, Chancellor Ernest L. Boyer said, "The State University welcomes not only the future architects, business executives, engineers, surgeons, and literary critics, but also future dairy farmers and medical technicians, accountants and social workers, foresters and automobile mechanics. And, through work in film, electronics, pollution control, data processing, police science, urban studies and similar fields, the University seeks to educate persons for tomorrow's roles as well as those of today."

Since its founding in 1948, the State University has grown from 29 State-supported but unaffiliated campuses into an organized system of higher education comprising 64 institutions.

Speeifieally, the-University-encompasses-four-university centers (two of which, Buffalo and Stony Brook, include health science centers); two medical centers; 13 colleges of arts and science; a non-residential college; three specialized colleges; six agricultural and technical colleges; five statutory colleges; and 30 locally-sponsored community colleges. Twelve of the campuses offer graduate study at the doctorate level, 22 at the master's level.

Advanced degree study encompasses a wide spectrum, including agriculture, business administration, criminal justice, dentistry, education, engineering, forestry, life and physical sciences, medicine, nursing, optometry, pharmacy and_veterinary_medicine.

Four-year programs emphasize the liberal arts and science and include such specializations as teacher education, business, forestry, physical education, maritime services, ceramics and the fine and performing arts.

The two-year colleges offer associate degree opportunities in arts and science and in technical areas such as agriculture, business, civil technology, data processing, police science, nursery education, nursing, medical laboratory technology and recreation supervision. The two-year
colleges also provide transfer programs within the University for students wishing to continue study toward a baccalaureate degree.

Two of the University's state-wide programs which have played important roles in upgrading educational opportunity for disadvantaged students have been merged into single operations called Educational Opportunity Centers.

The ten centers now combine the efforts of the former Urban Centers, which provided opportunities for educationally deprived students to upgrade occupational skills and find gainful employment, with those of the former cooperative college centers, which identified students with college potential and prepared them for matriculation into public and private colleges in New York State.

Educational innovation has from the first been a University watchword.

With funding support from a private educational foundation, several University campuses are experimenting with programs to shorten substantially the traditional four-year period of baccalaureate study.

Empire State College, the newest institution, is a nonresidential college whose students earn degrees without being attached to-a-speeifie-eampus-or-attending traditional classes. Its coordinating center at Saratoga Springs reaches out to students through regional learning centers.

State University is governed by a Board of Trustees, appointed by the Governor, which determines the policies to be followed by the 34 State-supported campuses.

The 30 community colleges operating under the program of State University have their own local board of trustees. The State contributes one-third to 40 percent of their operating costs and one-half of their capital costs.

The State University motto is "Let Each Become All He Is Capable of Being."

## Published by State University of New York at Albany:

Undergraduate Bulletin
College of Arts and Sciences Graduate Bulletin
School of Business Graduate Bulletin
School of Criminal Justice Graduate Bulletin
School of Education Undergraduate and Graduate Bulletin
School of Library and Information Science Graduate Bulletin
Graduate School of Public Affairs Bulletin
School of Social Welfare Graduate Bulletin
Graduate Bulletin (General)
Summer Sessions (Undergraduate and Graduate Bulletin) Schedules of courses are published in the spring and fall for:

Late Afternoon, Evening, and Saturday Programs (Graduate)
College of General Studies (Undergraduate Credit Courses)
Schedules-of non-credit courses offered by the College of General Studies are published periodically.
These may be obtained by writing the individual school at the University's address: 1400 Washington Avenue, Albany, New York 12222.

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# State University of New York 

Office of the Chancellor:

99 Washington Avenue, Albany, New York 12210

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State University of New York at Albany


[^0]:    *These are the College of Arts \& Sciences and the Schools of Business, Education, Public Affairs, and Social Welfare. Those registered in the Teacher Education Program must first be acceptable to the School of Education.
    **In 1969-70, all freshman students were under a mandatory "S/U" grading system. In 1970-71, most freshman and sophomore students were graded " $\mathrm{S} / \mathrm{U}$ "; a limited number of students were granted exception to this system and were graded "A-E" as were all juniors and seniors. From 1971 to 1973 " $\mathrm{S} / \mathrm{U}$ " grading was normative for freshman and sophomores with an option to grant "A-E" grading to any student who petitioned for exception.

[^1]:    ${ }^{*}$ No degree will be awarded in this program after August, 1978.

[^2]:    (For descriptions see relevant department listings.)
    WA His 176 a and b Introduction to Asian History (3, 3)
    ? A Cwl 180 Modern Chinese Literature in Translation (3)
    A Cwl 201 Oriental Literalure: Epic and Fiction (3)
    A Cwl 202 Oriental Literature: Drama and Lyric Poetry (3)
    A Cwl 345 b Asian Mythology (3)
    A His 377 a and b History of South Asian Civilization (3, 3)
    A His 380 History of Modern Japan (3)
    A Phi 334 Asian Philosophy (3)
    Aphi $3 \mathrm{H}^{0}$ Topics in Philosophy (Asian topics) (3)
    Phi 214 Comparative Religion (3)
    A Ant 344 South Asia: Peoples and Cultures (3)
    A Ant 345 Southeast Asia: Peoples and Cultures (3)
    A Ant 346 East Asia: Peoples and Cultures (3)

[^3]:    *Primary responsibility with Atmospheric Sciences Research Center
    **Visiting Professor

[^4]:    ${ }^{*}$ No degree will be awarded in this program after August, 1978.

[^5]:    *Two of the three courses are required.

[^6]:    *Grade of $S / C$ or better is required for the prerequisite unless waived by the chairman of the department.

[^7]:    * Grade of $S, C$ or better is required for the prerequisite unless waived by the ohairman of the department.

[^8]:
    

[^9]:    *No degree will be awarded in this program after August, 1978.

[^10]:    *This language should be of radically different structure from the foreign language chosen for the proficiency requirement. Non Indo-European languages are usally advised. Credits earned in Lin 289 may be counted towards the 36 credit requirement only if used to fulfill this one-year language requirement.

[^11]:    *It is recommended that students concentrating in Management Science complete at least A Mat 113.
    *\# It is recommended that a student take Law 200. Law 220 will be accepted as a substitute if a student has taken the course prior to declaring Business Administration as a major.
    ***Msi 230 a and b may be substituted for Msi 215, 220, 330 .

[^12]:    *The State Education Department has required that teacher education programs in New York State be re-registered in a Competency Based format. These programs may call for different professional requirements. Therefore, as teacher education programs are re-registered, the professional requirements may be modified. Students will be appropriately advised.

[^13]:    ${ }^{*}$ Business and office courses are business content courses; not professional business education courses.

[^14]:    * Note: Certification by the American Speech and Hearing Association, referred to as the Certificate of Clinical Competence (CCC), requires the master's degree or its equivalent, 300 clock-hours of supervised clinical practicum and one year of successful paid professional work experience upon completion of the master's program or its equivalent.

[^15]:    *Students wishing to participate in the programs marked with an asterisk may have to take a leave of absence from the Albany campus.

[^16]:    *No degree will be awarded in this program after August, 1979.

[^17]:    *Prerequisites for this course include two terms of general biology and two terms of general chemistry.

