

A-16

WINTER STUDY PROGRAM

5 January - 31 January 1968

List of Projects

WILLIAMS COLLEGE  
Williamstown, Massachusetts

9 October 1967

The first Winter Study Program offered under the new 4-W-4 Curriculum will take place from 5 January through 31 January 1968. During that period, each student will engage in the study of a single subject - either a project chosen from the List which follows, or a project which he has initiated and proposed. The educational goals of the Winter Study Program, having been widely discussed on the campus, need no further elucidation here. Procedures and regulations relating to the WSP are described in the following paragraphs.

Requirements. (i) Each student must pass a Winter Study project.

(ii) In either his Freshman or Sophomore year, he must enroll in a project in a field which he has not studied at Williams.

(iii) In either his Junior or Senior year, but not both, he must take a WS project in his major field.

Grades. The only grades recorded in WS projects will be "pass" and "fail." Reports from project directors to the WSP Committee will include mention of Honors calibre performance where appropriate.

"99" Projects. Any student or group of students may propose a special project, not included in the List of Projects, subject to the following conditions:

(1) before registration, a faculty member agrees to act as sponsor;

(2) before registration, the department of the sponsoring faculty member approves the proposal;

(3) after registration, the WSP Committee approves the proposal.

All such projects will be designated by the number "99," e.g., "English 99." The signature of the faculty sponsor is required on the registration form.

#### Registration Procedures

1. The List of Projects and a Registration Form will be distributed about 11 October 1967. Extra registration forms may be picked up at the Registrar's office.

2. The registration form is to be completed by listing, in order of preference, four WS projects, which may include a "99 Project." Signatures of instructors, when required, must be included. In the case of Freshmen, the signature of the Faculty Adviser is required.

3. Completed registration forms are to be turned into the Registrar before 4:00 p.m., Friday, 27 October. A student who fails to meet this deadline will be assigned to a project after the normal Assignment Procedure has been completed. (See next paragraph.) (In other words, the penalty for late filing is to be bumped to the end of the line when assignments are being made to popular projects.)

4. After Wednesday, 13 December 1967, all assignments to projects will be permanent.

### Assignment Procedure

1. To be admitted to a project, a student must satisfy all prerequisites (if any); obtain written permission of the instructor (if required); and meet all conditions of exclusion (such as "Not open to Juniors or Seniors").
2. Assignment to projects will generally be on the basis of class, i.e., Seniors first, Juniors second, etc.
3. After all students who have registered on time have been assigned as described above, late registrants will be assigned.
4. Students who cannot be assigned in the above manner to any of their choices will be notified and permitted to enroll in any WS project for which they are qualified and for which openings exist.

Note: In the Mock Registration last May, 97% of the Seniors were assigned to their first choice and the rest to their second choice. 82% of all students registering obtained their first choice, and 13% their second.

### Attendance and Reports

1. Each student is required to attend the first meeting of his project, which will be held on Friday, 5 January 1968, at an hour and place to be announced later. Any one who fails to do so may be barred from his assigned project by the instructor and reassigned to another project.
2. All reports - oral or written - and any other product or performance required by the project must be presented to the instructor before 5:00 p.m. on Wednesday, 31 January 1968. Failure to meet this deadline will result automatically in a grade of "fail."

Failure of a WS Project. The Committee on Academic Standing will review all cases of failure and may recommend that the student be required to resign, especially where there is evidence of flagrant neglect. Ordinarily, a student who fails a WS project will be required to pass a Substitute Project. Such projects will be offered in a four-week program during June 1968 for which residence at the College is required and a fee will be charged. Details will be announced later.

Extra Expenses. A few projects, involving off-campus activities, will require additional expense for transportation, lodging, meals, admission tickets, etc. This additional expense will be borne by the student involved, except in the case of a scholarship student who will be granted a mileage and per diem allowance. Arrangements for this allowance will be made through Mr. Flynt's office.

Other expenses, such as textbooks, will be borne by the student in the usual way.

Winter Study Program Committee

Francis C. Oakley  
H. William Oliver, Coordinator  
Charles T. Samuels

## AMERICAN CIVILIZATION

### AMERICAN CIVILIZATION 21 Fictional Portrayals of an American Demagogue

Prerequisite: History 203-204 (205-206)

Enrollment limited to 15

Works by Robert Penn Warren and others; artistic problems in achieving a rounded and objective portrait; comparisons with historical figures; evaluation of effectiveness of fiction dealing with politics.

Instructor: MANSFIELD

The following History Department projects are also proposed by the American Civilization Department:

- History 13 Geographical Factors in History
- History 14 Images of the Negro
- History 15 The South in American History
- History 16 Utopias and Utopian Thought
- History 21 The Nature of Historical Understanding
- History 22 The Role of the Great Man in History
- History 23 Readings in the Diplomacy of the Cold War, 1946-1963

With the consent of the department, projects in other fields may be taken in fulfillment of the American Civilization Winter Study requirement.

## ANTHROPOLOGY

### ANTHROPOLOGY 11 Ethnographic Field Research

Requirements: Enrollment limited to 15. Selection will be based on background in anthropology, grades, and personal assessment. First consideration will be given to Seniors.

The members of the project will also be expected to take part in a series of non-credit seminars during the Fall semester.

It will be necessary for each participant to undergo a physical examination and fulfill standard immunization requirements.

Research in cultural anthropology and public health undertaken on the Island of Roatán, Honduras. Students will be actively engaged in the collection of data on the economic life, social organization, family life, folk medical practices, etc., under the guidance of the program director and a medical doctor who will accompany the project team.

Expenses: Room and board, and transportation (figured from Kennedy Airport) are not expected to exceed \$400.

Living Arrangements: The members of the research team will board with local families.

Work Schedule: Three mornings per week will be devoted to seminars, afternoons and evenings (and mornings not used for seminars) to the collection of data. Each student will be expected to write weekly reports on the data he has collected.

Instructor: PRICE

ART 11 Language of the Visual Arts

Prerequisite: None

Enrollment limited to 15

The nature of the visual experience as it relates to the work of art. A basic study requiring no previous training or special skills. Two two-hour lecture-demonstrations and three two-hour studio-discussions each week. Several studio projects and short written papers to serve as material for the discussion sessions. Study of problems of design: e.g., space, color, materials and techniques. The work of art as an expression of culture.

May be offered in lieu of Art 101 for entry into the major if followed by Art 102.

Instructor: PIERSON

ART 12 Color (Studio Course)

Prerequisite: None

Enrollment limited to 20

A series of studies in the relativity of color. Individual student projects and critical discussions of work done in this program, accompanied by lectures on the interaction of color as it appears in specific paintings. Class meetings Monday through Friday, 10:00 a.m. to noon, and 1:30 - 3:30 p.m.

Following this Winter Study Project, students may take Art 101-102 in reverse order (102 in spring term, 101 in the following fall term).

Instructor: WOOD

ART 13 Language of Architecture

Prerequisite: None

Enrollment limited to 15

Basic problems in the understanding and criticism of architecture. Architecture as an expression of a culture. Two two-hour lectures and three two-hour discussions each week. Short papers on specific buildings. Field trips to New Haven and Boston.

May be offered in lieu of Art 101 for entry into the Art Major, if followed by Art 102.

Instructor: STODDARD

Expenses: About \$45

**ART-CLASSICS 21 Urban Life in Greece and Rome****Interdepartmental Project with Classics****Prerequisite:** a course in History, Classics, or Art**Enrollment limited to 20**

The rise and development of the city in antiquity, and its relevance to present-day urban problems, from an aesthetic, sociological, and political viewpoint. During the first week, daily group meetings with readings in ancient documents and literature (in translation) and in modern secondary sources, on such topics as the earliest urban developments in Greece; the city of Athens; the organization of sanctuaries, such as Olympia and Aegina; the first "modern" cities, in the Hellenistic age; Roman towns and the Etruscan, Umbrian, and military origins; Pompeii; and the transition to the medieval community. After the first week of lecture-discussions, meetings to trace the development of the city of Rome from its founding to the present day will be held once a week, while each student investigates independently the development of an ancient city of particular interest to him.

**Instructors:** JOHNSON and STAMBAUGH**ART 22 Studies in Chinese Painting****Prerequisite:** Art 101-102**Enrollment limited to 15**

To be given by Sherman Lee, Director of the Cleveland Museum of Art, who will be in Williamstown during January 1968 only, as Visiting Robert Sterling Clark Professor of Art. Mr. Lee is recognized as one of the foremost authorities on Far Eastern Art.

Informal discussion sessions based on original works supplemented by reproductions. Individual student reports after an introduction to the field of Chinese painting given by the instructor. Each report to be developed into a written paper due at the end of the project. Field trips to one or more major museums.

**Instructor:** LEE**Expenses:** About \$45

## BIOLOGY

### BIOLOGY-PSYCHOLOGY 11 Aggression in Society: Inheirted or Acquired?

Interdepartmental project with Psychology

Prerequisite: None

Enrollment limited to 25. No junior or senior majors from the Psychology or Biology Departments admitted.

Recent biological concepts cast doubt on classical interpretations of aggression. This course examines the roles of territoriality and social hierarchy in primate and other animal populations and the possible relevance of these to human behavior.

Two orientation lectures followed by weekly day-long group discussions led by the instructors and outside visitors. Readings.

Instructors: GRANT, MCGILL

### BIOLOGY 12 Selected Topics in Animal Behavior

Prerequisite: None

Enrollment limited to 15

Evaluation of concepts concerned with inherited and learned patterns of behavior in animals: imprinting, conflict behavior, displacement activity, etc. Examples will be drawn primarily from studies conducted on fish, birds, and mammals.

Four two-hour seminars, readings in the original literature and a selected laboratory project with written report.

Instructor: WILZ

### BIOLOGY 31 Special Projects in Biology

Open to Biology, Chemistry, or Physics Majors

Enrollment limited to 10

Topics of current interest in physiology will be studied in both library and laboratory, utilizing some of the precision instruments now available for such studies as the polygraph, oscilloscope, Warburg apparatus and recording spectrophotometer. Several meetings of the group for presentation and discussion of results will be held during the period.

Instructor: MATTHEWS

### BIOLOGY 32 Modern Concepts of Regulation of Cell Processes

Open to Biology, Chemistry, or Physics majors

Enrollment limited to 12

Various aspects of the relatively new area of biological regulation will be explored on the cellular and molecular levels. Topics include mechanisms of enzyme action and its regulation; regulation of the synthesis of biological molecules; structure-function relationships of cells, cell organelles, and biological molecules; and regulation of cell respiration and related energy-consuming processes.

BIOLOGY 32 (cont.)

Two introductory lectures, followed by selection of specific topics; library research on original research papers; seminar presentations and discussions; short written paper by each student on his selected topic.

Instructor: LANE

BIOLOGY 34 Honors Thesis

Continuation of Honors Thesis during WSP of senior year.

Instructors: DeWITT and members of the Department

## ASTRONOMY

### ASTRONOMY 11 Individual Studies in Astronomy

Prerequisite: Not open to students who have had a college Astronomy course

Enrollment limited to 20

During the first week of the Winter Study period, lectures each morning, planetarium demonstrations on certain afternoons, and evening observations with the telescopes on the observing deck, weather permitting, will attempt to open the entire field of Astronomy. Each student will then select one topic which he will investigate independently in considerable depth, and on which he will present an oral report to the entire group at the end of the period.

Instructor: MEHLIN

CHAPIN 11 The Printed Book

Prerequisite: None

Enrollment limited to 10 (admission with approval of the instructor)

Brief survey of the origins and development of the printed book, emphasizing graphic processes, illustration, paper-making, typography, book-binding and distribution of books from the 15th to the 20th century, using examples in the collections at the Chapin Library. Special projects and individual reports. 3 class meetings weekly: 2 hours each.

Instructor: ARCHER

**CHEMISTRY 12 Chemistry and Radioactivity**

**Prerequisite:** None

**Enrollment limited to 15. Not open to physics and chemistry majors**

Applications of radiochemistry and nuclear fission processes to studies of chemical and biochemical changes, radiodating and energy production. Field trip to the Yankee Atomic Power Plant at Rowe and discussions with the Rowe engineers at the plant and on the campus.

Independent reading, group discussions, and a written paper.

**Instructors:** COMPTON and Members of the Department with the Staff of Yankee Atomic Electric Company

**CHEMISTRY 13 The Molecular Point-of-View**

**Prerequisite:** None

**Enrollment limited to 25. Not open to physics and chemistry majors**

An elementary description of the structure of molecules and a study of the relationship between molecular structure and the behavior of matter, with some emphasis on the substances from living organisms.

Independent reading and class discussions.

**Instructor:** TAYLOR

**CHEMISTRY 22 Introduction to Independent Investigation**

**Prerequisite:** Chemistry 101 or 103

**Enrollment limited to 5**

A program planned to introduce the student to independent scientific research. An experimental problem will be assigned, together with appropriate references to texts and journals. Written report.

**Instructor:** SKINNER, with CURRY, MOOMAW

**CHEMISTRY 31 The Biosynthesis of Natural Products**

**Prerequisite:** Chemistry 203-204

**Enrollment limited to 8**

A study of the secondary metabolic pathways leading to organic compounds of biochemical interest and methods of their investigation. The biogenesis of substances such as isoprenoids, steroids, amino acids and alkaloids will be considered.

Laboratory work in the application of  $C^{14}$  tracer studies to biosynthesis problems.

**Instructors:** WARREN, and Members of the Department

**CHEMISTRY 33 Senior Theses**

**Prerequisite:** Permission of the Department

**Enrollment limited to about 12**

Continuation of experimental research projects under the direction of staff advisors. Continuation of H451, and to be followed by H452.

**Instructors:** COMPTON, MARKGRAF, MOOMAW & SKINNER

CLASSICS 11 The Ideal of Greek Heroism (in translation)

Prerequisite: None

Enrollment limited to 15

An examination of the development of different concepts of the hero in Greek literature, his position in society, the obligations and limitations of the heroic life, and the influence of these ideals on Western literature. After an introductory series of discussions each student will prepare a paper on either a single heroic figure or an aspect of heroism for presentation to the seminar.  
Instructor: FUQUA

CLASSICS 12 The Origins of Literary Genres in Classical Literature (in translation)

Prerequisite: None

Enrollment limited to 12

An inquiry into the circumstances and processes of evolution of the various genres of ancient literature. Students will elect a specific literary form (epic, tragedy, elegy, etc.) and by reading of examples in translation and secondary materials compile an account of the development of that genre into its mature form. The program will consist of an initial lecture-meeting and subsequent consultations with individual students, leading to a research paper at the end of the project.  
Instructor: BRIGHT

CLASSICS-ART 21 Urban Life in Greece and Rome

Interdepartmental Project with Art

Prerequisite: a course in History, Classics, or Art

Enrollment limited to 20

The rise and development of the city in antiquity, and its relevance to present-day urban problems, from an aesthetic, sociological, and political viewpoint. During the first week, daily group meetings with readings in ancient documents and literature (in translation) and in modern secondary sources, on such topics as the earliest urban developments in Greece; the city of Athens; the organization of sanctuaries, such as Olympia and Aegina; the first "modern" cities, in the Hellenistic age; Roman towns and the Etruscan, Umbrian, and military origins; Pompeii; and the transition to the medieval community. After the first week of lecture-discussions, meetings to trace the development of the city of Rome from its founding to the present day will be held once a week, while each student investigates independently the development of an ancient city of particular interest to him.

Instructors: JOHNSON and STAMBAUGH

**DRAMA 11 Seminar and Workshop: The Theatre of Cruelty**

**Prerequisite:** None

**Enrollment limited to 30**

Reading, lecture, and discussion on Theatre of Cruelty, plus workshop rehearsal and performance of scenes from the genre's plays and improvisations using Theatre of Cruelty techniques. Lectures and readings will range into "Cruelty" in related arts, with some guest lecturers. The workshop will experiment with scenes from Genet, Weiss, and others--as well as improvise with original or non-theatrical material. Students will participate in the creation of a film dealing with the theme of cruelty.

Seminar meetings of 1-1/2 to 2 hours are held twice a week. Workshop rehearsals of 3 to 5 hours daily.

**Instructor:** FOWLER

**DRAMA 12 Experiments in Aesthetic Effect**

**Prerequisite:** None

**Enrollment limited to 20**

A course for students interested in any of the arts, with no previous training or performing ability required. Key goal is creative research and experimentation in the effectiveness of art-elements, gathering some direct evidence as to where and why art is pleasurable or successful, and how such judgments are ever relevant. Preliminary lectures outline fundamentals of aesthetics, then instructor and students design laboratory experiments and variant interpretations to test the workings of the artist's "score," using parts of plays, drawings, scenarios, music, poetry, and original materials.

(Sample experiment: Accuracy and acceptability of symbols. A volunteer group is shown a series of visuals in order of their increasing symbolic complexity. Carefully designed tests estimate the point at which symbolic value breaks down, and a questionnaire charts such variables as spectators' preferences for clear meaning or challenging symbolism. Repeated with recorded passages of "descriptive" music, and given to varied age and educational-level groups for comparative data purposes.) Using apparatus and tests on subjects, other experiments might investigate the effect of a writer's word choice; prejudices in language characteristics in classical vs. modern writing; audience attention spans; the use of line movement and composition of mass on the stage; or the meaningfulness of a theory of "pleasing" sound or "color" in poetic mood and imagery.

Although many investigations may be suggested by instructor, emphasis is on student-designed experimentation; thus, no papers. After the first week, students will meet individually with instructor to research and build their experiments. A public demonstration of experimental designs, apparatus, and findings concludes the course.

NOTE: More detailed information, including a course outline, is available from instructor for anyone wishing further information prior to registration.  
**Instructor:** VON SZELISKI

DRAMA 21 Design in the Theatre

Prerequisite: Drama 202 or any Design Course

Enrollment limited to 10

The course focus is on scenic or light designing, related to mounting an actual production. Lectures and discussion provide a foundation in theatre design, leading to the student's creation and defense of his own design project. Members of the class would participate in design conferences for current productions, possibly working with the guest professional designer. Selected student designs may be incorporated into actual scenery or lighting for a Winter Study Period production.

Class meetings are 1-1/2 hours daily, with at least 15 additional laboratory hours required.

Instructor: WATSON

ECONOMICS 11 Foreign Aid

Prerequisite: None

Enrollment limited to 15

Some of the questions to be examined in the common class meetings are: What are the potential positive and negative effects of foreign assistance upon the development process in low-income countries? What are the possible interests of high-income countries in providing aid? What has been the actual pattern of aid flows from the U.S., European countries, and communist countries to various aid-receiving countries? What are the most pressing issues about the terms on which aid is provided? What are the most pressing issues about allocation of assistance among low-income countries?

Some illustrative questions which students may examine in their individual study projects are: What should be done about the issue of tying aid to imports from the aid-giving country? How could aid have been used better by Pakistan (or another country)? How could the aid program of the Soviet Union (or another country) be improved?

A student electing this WSP will receive a bibliography to guide his individual reading. He will be invited to attend ten common class meetings during the first two weeks in which general theory, facts, and issues will be presented. He will be asked to select for individual study a particular topic dealing with foreign aid, and to write a paper setting forth his analysis and conclusions.

Instructor: BRUTON

ECONOMICS 12 The Economic Impact of Technology

Prerequisite: None

Enrollment limited to 15

This project will focus on the relationship of man and machine, viewing the economic impact of technology in the perspectives of time and space. Research topics falling within the scope of this project will include such diverse issues as the economic impact of specific inventions or innovations (e.g., atomic energy, computers, internal combustion engine, etc.), theories of the determinants of technological change, resource demands of changing technology, the impact of technology in non-Western cultures, and the economics of automation.

A few introductory classes, then independent work on tutorial system; paper required.

Instructor: ARMSTRONG

ECONOMICS 14 The Enterprise Economy versus the Welfare State?

Prerequisite: None

Enrollment limited to 15

An examination of the question of how far state provision of a varying array of social services may work to inhibit the operation of a free enterprise economy, and how far it may in fact improve the operation of such an economy in terms of its efficient attainment of prescribed social objectives.

After a series of introductory discussions, students will make individual studies of particular country experiences, or of the comparative provision of selected services in two or more countries. Findings will be discussed in joint meetings toward the end of the Winter Study Program, and an attempt will be made to assess and compare the direct and indirect costs and benefits of state versus private provision of such services in the various national contexts. The studies will then be written up as a series of individual short papers.

Instructor: HAINSWORTH

ECONOMICS 21 Statistics in Economics (Center for Development Economics)

Prerequisite: For undergraduates, Economics 101-102; not open to students who have taken Math 140 (formerly 104)

Enrollment limited to about 5 undergraduates in addition to the Center students

A comprehensive study of statistical theory and its application to problems of description, estimation, and forecasting in economics. The course will start at the very beginning of the subject, with an explanation of common descriptive measures, then explore the theory of and application of the sampling distribution, then apply the theory to regression analysis of economic hypotheses, and finally study some special regression problems which plague economists.

This will be an intensive course, not an independent study. It will be tightly structured and the class will probably meet four days a week for the entire session.

Instructor: BOLTON

ECONOMICS 22 Marxian Economics and Ideology

Prerequisite: Economics 101, 102 and consent of instructor

Enrollment limited to 15

The philosophical orientation of Marxian economic thought. An evaluation of his economics in the light of modern economic theory, hence, an assessment of the impacts of Marx as economist and social reformer. The use of Marxian economics as a predictive device: Marx as economic and social prophet.

Students electing this project will select specific areas of concentration from, among others, the following: Marxian social philosophy (the economic interpretation of history and the class struggle); the validity of the Marxian theory of value; the "immiserization" and alienation of the proletariat; the relationship between Marxian and Keynesian theories of employment and output; the neo-Marxian concept of economic surplus and its relation to "rational" economic

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## ECONOMICS 22 (cont.)

order; the "new imperialism."

Participants will prepare a paper which will be presented to common meetings of the group for discussion and critique. There will be one or two introductory meetings with frequent meetings thereafter. Individual consultation with the instructor as needed.

Instructor: HALSTEAD

ECONOMICS 23 Planning and Rebuilding Cities

Prerequisite: Economics 101-102 or, for upperclassmen, consent of instructor  
Enrollment limited to 40

The course will begin with readings which describe and criticize the urban renewal program, and discuss the way in which cities serve those who live in them. After this, students will pursue individual interests in such areas as: how does a city's size and population density affect its ability to provide services to its inhabitants and its general desirability as a place to live? How do specific urban renewal efforts stand up against the criticisms leveled at the program? How have new towns been built and what considerations were important to those who planned them.

Students may also elect to pursue research projects with the local anti-poverty program. Possible subjects include housing renovation costs or consumer credit practices as they affect the poor in this area. Groups of students studying urban renewal programs or new towns can include visits to these areas as parts of their independent study.

Toward the end of the winter study session, the class will report to each other on their findings, comparing how different agencies have tackled similar problems.

Instructor: MOSCOVITCH

ECONOMICS 25 New York Financial Market

Prerequisite: Economics 101-102  
Enrollment limited to 20

The central object of this study is the determination of the degree to which securities markets allocate capital resources efficiently among various competing uses. The central question is essentially open-ended and leaves considerable room for the student to pursue a question of particular interest to him.

Examples of possible questions are:

- (a) methods of forecasting stock and bond prices
- (b) the degree of competition in capital markets
- (c) government regulation of securities markets
- (d) the measurement of the contribution of financial markets to U.S. economic growth
- (e) financing decisions of large corporations.

The introduction to this topic will consist of a two-day trip to N.Y.C. to study the market firsthand and meet with Federal Reserve and stock exchange officials, bankers, brokers, dealers, etc. In the remaining time the student would pursue a topic of interest to him. In the last week of the project, all students will present written and oral reports.

Expense: About \$50

Instructor: McCLEARY

**ECONOMICS 26 The Economy of Communist China**

**Prerequisite:** Economics 101-102. There will be greater demands made on those students who have taken such courses as History 330

**Enrollment limited to 20**

An attempt will be made to cover major developments in mainland China since the Communist revolution, with brief reference to the earlier periods. Each student will pursue more fully a topic of his own interest on the economy of China, its functioning, or development.

There will be some meetings in common at the beginning and at the end of the session, covering first some background that all students should have and at the end the principal findings by the students involved. There will be a paper required of all students.

**Instructor:** LEWIS

**ECONOMICS 27 Postwar France: Economic and Social Change**

**Prerequisite:** Economics 101-102, plus some knowledge of 19th and 20th century European history

**Enrollment limited to 10**

Study of selected aspects of economic and social change in contemporary France, against the background of historical reluctance to enter the modern world. Possible topics, to be oriented by individual student interests: methods and consequences of economic planning; attempts at control of industry through partial public ownership; the social welfare system; de Gaulle-ism and related attempts to find new ways to get labor and capital to admit each other's right to exist; French interests and talent for obstruction in relation to the world economy.

**Procedure:** two or three initial seminars, directed reading and consultation, individual papers, and two or three closing seminars on the papers.

**Instructor:** SHEAHAN

ENGLISH 11 Hemingway, Shaw, and Cummings

Prerequisite: None

Open only to those who have had no course in English at Williams

Enrollment limited to 30

An introduction to problems of literary analysis through an intensive study of short stories by Ernest Hemingway, plays by George Bernard Shaw, and poems by E. E. Cummings. Group discussions will alternate with independent study. Short oral reports and written exercises.

Instructors: STOCKING, BEREK

ENGLISH 21 Early Modes of Prose Fiction

Prerequisite: English 101

Enrollment limited to 15

Reading in the classic types of prose narrative before the rise of the modern novel, with explorations of romance, realism, and satire in narrative works written before the middle of the eighteenth century. Besides some short Greek romances the reading will consist of Apuleius's The Golden Ass, Lucian's True History, Petronius's Satyricon, selections from Rabelais or Cervantes, Nashe's The Unfortunate Traveller, Lodge's Rosalynde, and Defoe's Moll Flanders.

Discussion and short reports (oral and written), with a paper of moderate length at the end of the project.

Instructor: ALLEN

ENGLISH 22 The Individual Reader and the Values of Literature

Prerequisite: English 101

Enrollment limited to 12

The usual emphases of an introductory course in literature are reversed in this project: rather than being objective, analytical, and concerned primarily with explication, the approach will be subjective, comparative, and concerned primarily with evaluation. In the first exercise, students will try to record the "perfect reading" of a poem, and a number of these recordings will then be compared. Later exercises will include: comparison of different English translations of modern foreign poems (Mallarmé, Rilke, Lorca, Ungaretti), and consideration of the problem of judging works only in translation; comparison of successive versions of a poem during the process of composition; serial comparison of a "chain" of poems, each resembling the next in a different way; and comparison of works in different genres--poem, story, and short play.

Frequent seminar meetings and language laboratory work in the first two weeks. Independent study thereafter, culminating in a 20-25 minute oral report, which may be either delivered from notes or read as a finished paper. These individual reports will be delivered to the class as a whole in a final marathon seminar meeting.

Instructor: MEGAW

ENGLISH 23 The Short Story

Prerequisite: English 101

Enrollment limited to 15

An attempt to define "the short story" by examining its development in America. Students will be expected to read not only a basic selection of American stories, but they will also add choices of their own and will attempt, through additional readings of foreign authors and related critical material, to determine some of the major effects of foreign influences. Group meetings twice a week (75-minute periods). Definitive essay, with supporting bibliography, due at the end of the course.

Instructor: GLASSER

English 24 Creative Writing

Prerequisite: English 101

Enrollment limited to 15

Individual projects in imaginative writing. For students who have a specific project in mind, and who discuss it with the instructor prior to enrolling. Group meeting and individual conferences. Some assigned reading.

Instructor: STEVENS

English 24 Joseph Conrad: the Early Years

Prerequisite: English 101

Enrollment limited to 15

A study of Conrad's development as a novelist and short story writer from Almayer's Folly to Nostromo. Special attention will be given to his relationship with continental romantic, symbolist, and impressionist writers. Group meetings and conferences on independent projects, which will culminate in a substantial paper.

Instructor: GRAVER

English 26 Joyce's Ulysses

Prerequisite: English 101

Enrollment limited to 40

Not open to students majoring in English

A study of Ulysses, together with A Portrait of the Artist as a Young Man and Dubliners and some reading in other works of Joyce. An average of three meetings a week. Students will be given a choice between writing a paper and taking a written examination on central problems presented by Ulysses.

Instructors: HUNT, GIFFORD

ENGLISH 27 The Roots of Alienation

Prerequisite: English 101

Enrollment limited to 15

This project intends to emphasize the continuity between Victorian England and the twentieth-century and to encourage the recognition that neither the problems nor the embryonic answers to them have significantly altered since 1837. In short, "Victorianism" is a misnomer; it is, in fact, an early expression of that malaise which is twentieth-century civilization.

"The Roots of Alienation" will concentrate upon four "Victorian" writers who confront, define and attempt to ameliorate the process of personal alienation in a modern urban, industrial society. John Stuart Mill's Autobiography will be considered as an essentially humanistic attempt to reconcile the conflict between individual self-fulfillment and the hostile environment of a monolithic society. Thomas Carlyle's Sartor Resartus will be studied as a proto-existentialist response to the crisis he and Mills are recognizing simultaneously, although in different terms.

These two works will serve as a basis for a consideration of George Eliot's The Mill on the Floss and Charles Dickens' The Mystery of Edwin Drood, two novels growing out of the radical situation defined by Mill and Carlyle. Students will be encouraged to read Dostoevsky's Notes from Underground and Freud's Civilization and its Discontents, or other British, Continental or American writers developing this theme.

Instructor: FRANK

ENGLISH 28 The Literature of Social Protest in the 1930's and the 1960's

Prerequisite: English 101

Enrollment limited to 15

An examination of social protest in the novels and plays of the depression thirties and the affluent sixties. There will be some assigned readings, but participants will be encouraged to extend their investigations by selecting additional works from lists provided by the instructor. Classroom attendance will be given to such major figures as John Dos Passos and John Steinbeck, to the radical playwrights of the depression era, and to recent works like those of Mailer, Baldwin, and the author of MacBird. Among topics to be discussed will be the problem of finding standards by which to evaluate protest literature. Occasional lectures and frequent discussion meetings. No papers or examinations, but participants will offer oral reports in the discussion meetings.

Instructor: PAANANEN

ENGLISH 29 An Introduction to Hemingway and Faulkner

Prerequisite: English 101

Enrollment limited to 15

Hemingway: selected short stories, including the early sequence, In Our Time, followed by The Sun Also Rises.

Faulkner: selected stories, including the longer version of The Bear and concluding with The Sound and the Fury.

In the study of both writers, emphasis will be placed upon the craft of fiction and upon these stories and novels as central to the artistic development of the two authors chosen for study. Meetings and reports will be arranged in accordance with the size and talents of the group and to allow ample time for independent reading. The reading will culminate in a paper, which will be directed in individual conferences.

Instructor: WILSON

ENGLISH 30 Fin de Siècle

Prerequisite: English 101

Enrollment limited to 15

Literature of the eighteen-nineties from the perspective of the Aesthetic and Symbolist movements; with attention to the Rhymers' Club, The Yellow Book and The Savoy, and to the fiction, criticism, and poetry of Wilde, Symonds, Beardsley, Beerbohm, the young Yeats, and others. Students will be encouraged to undertake individual projects relating this literature to its French backgrounds or to parallel developments in art and music.

Instructor: CARR

## FRENCH

### FRENCH Sustaining Program for French 101-W-102

This sustaining course will meet five days a week, Monday through Friday, in the Language Practice Laboratory, at a set hour. All work will be done in the form of teacher-supervised laboratory lessons of sixty minutes each. No class preparation will be required.

The course is required of all students registered for French 101-102. Honors candidates, however, may be excused from the sustaining course, with the permission of the department. For such students tapes will be available for individual use.

Credit for French 101 will be given only if the student successfully completes the sustaining course and 102.

Instructor: MRS. SMITH

### FRENCH 11 Marcel Proust, novelist (in translation)

Prerequisite: None

Enrollment limited to 15 students

Students will read Proust's Remembrance of Things Past, in English translation, along with biographical and critical material relevant to an initial study of the seven novels.

After an introductory lecture, the group will meet once a week to discuss selected themes of the book and the manner in which Proust has orchestrated them (e.g., Proust's concept of time, love, art, sex, personality, literature and society as modes of existence). For each of these three weekly meetings the student will prepare an essay of 1,500 words representing his reflections on an aspect of the week's reading.

Instructor: SAVACOOOL

### FRENCH 21 Surrealism

Prerequisite: French 109, or a reading knowledge of French.

Enrollment limited to 15 students.

Exploration of the surrealist idea as it appears in drama, fiction, cinema, poetry and criticism. The project will be organized as a group of related independent study programs, all concerned with some aspect of surrealism and all starting with an examination of the same basic documents and critical material. Readings will be both in French and English.

The end product of the project will be a long essay which may be written in either English or French.

Instructor: MRS. RENAUDIE

FRENCH 22 A Study of Albert Camus

Prerequisite: French 201

Enrollment limited to 15 students.

The reading and discussion of four récits, six essays, two plays, and selected criticism. There will be six discussion meetings (two a week), and at least one individual conference during the project. The readings will be in French, the discussions and papers in English. The student will be evaluated on the basis of either a critical essay or a written examination. The subject of the examination will be selected from a list of announced topics.

Instructor: RORKE

FRENCH 23 Blaise Pascal

Prerequisite: French 201

Enrollment limited to 15 students

The principal aim of this project is to acquaint the student with different aspects of Pascal's genius (especially "Pascal as Moralist" and "Pascal as Poet"), and to give the student, through intensive study of a single author, the perspective of patterns of reasoning in the seventeenth century.

Specific attention will be given to problems involving experience inherent in the human condition, as well as to the study of the tragic vision in Pascal's work and its relationship to modern French literature (Malraux, Camus, Valéry, and others).

The project consists of five lectures (seventy-five minutes each) to be given during the first week. The remainder of the time will be devoted to reading and the preparation of a research paper (about 2000 words). Lectures, reading, and the final essay will be in French.

Instructor: PISTORIUS

**GEOLOGY 11 An Introduction to Physical Oceanography**

**Prerequisite:** None

**Enrollment limited to 30.** Preference will be given to Freshmen and Sophomores

A study of ocean waves, tides and currents and their effects on modifying shorelines and beaches. Reading and discussion on the methods and results of modern oceanographic research. Small group projects involving the use of the computer for simulating wave patterns along shorelines and experiments using a scale model wave tank.

**Instructors:** FOX and MacFADYEN

**GEOLOGY 12 Underground Water**

**Prerequisite:** None

**Enrollment limited to 10**

A study of the geologic occurrence and hydrologic principles related to the behavior of underground water and the application of these to the evaluation of the availability of such water for man's use. A number of representative geologic examples will be examined. Each student will make a detailed study and report on one or more specific regional cases. These may involve either particular urban or agricultural regions.

**Instructor:** PERRY

**GEOLOGY 21 Continental Drift**

**Prerequisite:** Geol. 101-2 or high school earth science course

**Enrollment limited to 10.** Preference will be given Freshmen and Sophomores

Is continental drift possible? What evidence is there for and against the concept of "wandering continents," and what forces are available within the earth to drive such a process?

Small groups of students will investigate extensively a single line of evidence, exploring such topics as sea-floor spreading, polar wandering, alignment of major structural trends, and fossil similarities between widely separated regions. Findings will be presented to the entire group for discussion and critical evaluation in the light of physical processes operating within the earth. The final period will be used as a debate between "Drifters" and "Non-drifters."

Eight informal discussion periods, plus a written report summarizing the results of independent reading.

**Instructor:** WOBUS

## GERMAN

### GERMAN Sustaining Program for German 101-102

Students who have completed German 101 in the fall will meet during the winter term in conference groups of approximately fifteen students. These groups will meet five days a week, Monday through Friday, at a set hour in the Language Laboratory. There will be no required preparation for these meetings which will be conducted, in German, as a combination of class-work and teacher-supervised laboratory drills.

Credit for German 101 will be given only upon satisfactory completion of this sustaining course and German 102.

Instructors: MENDUM, ELFE

### GERMAN 11 Franz Kafka (in English translation)

Prerequisite: None

Enrollment limited to 15

Works of this author will be read in translation. There will be lectures and discussions during the first and final weeks of the winter term. Each student will be assigned a critical essay.

Instructor: HARRISON

### GERMAN 21 Goethe's Faust

Prerequisite: The project is designed for German majors; other students who have completed at least one course in German at the 200-level may be admitted with the permission of the instructor

Enrollment limited to 10

Goethe's Faust, Parts I and II, will be studied as drama and theater along with pertinent background and critical material. Lectures and discussion during the first week; independent study with individual conferences during the remainder of the term while each student is preparing a substantial essay on a selected aspect of the work.

Instructor: SILAS

## HISTORY

For most of the projects listed below, a paper dealing with the material read and discussed will be required at the end of the Winter Study Program. This will not be a research paper but rather an essay of analysis and interpretation.

### HISTORY 11 The Age of Democratic Revolution, 1776-1815

Prerequisite: None. In admission to this project, preference will be given to Freshman and Sophomores.

Enrollment limited to 30

A combination of independent study and a few class discussions on the age of revolutionary upheaval as a watershed marking the transition from the early national state to the modern nation. The American Revolution, the French Revolution, and Napoleonic Europe.

May be substituted for History 101 in the history major sequence.

Instructors: WAITE, SHAW

### HISTORY 12 The European City, Its History and Civilization

Prerequisite: None. In admission to this project, preference will be given to Freshmen and Sophomores.

Enrollment limited to 15

The role of urban life in determining the history and character of European civilization, considering such issues as the following: the definition of a city (for example, Ian Fleming's Thrilling Cities); the comparison of several cities over a limited period of time (for example, Pirenne, Medieval Cities); the microcosmic study of a city over an extended period of time (for example, Ilsa Berea's Vienna or Machiavelli's History of Florence); and the study of a city in a concentrated period of time (for example, Monter, Calvin's Geneva or Pinkney, Napoleon III and the Rebuilding of Paris).

May be substituted for History 101 in the history major sequence.

Instructor: BRAZILL

### HISTORY 13 Geographical Factors in History

Prerequisite: None

Enrollment limited to 15

The influence of geographical factors (mountain ranges, rivers, the sea, climate, soil conditions, and natural resources) in the development of a nation or a region and their impact on transportation, industry, agriculture, and culture. Three or four classes will involve basic principles of geographical analysis, and then each student will study the influence of such factors in one country or region.

Instructor: LABAREE

HISTORY 14 Images of the Negro

Prerequisite: None

Enrollment limited to 15

Images of the Negro and American social attitudes as revealed in American literature. Individual projects making use of the writings of Negro and white authors and occasional group seminars.

May be substituted for History 203 in history major sequence.

Instructor: RUDOLPH

HISTORY 15 The South in American History

Prerequisite: None. In admission to this project, preference will be given to Freshmen and Sophomores.

Enrollment limited to 15

Three or four meetings to read and discuss the major periods of Southern history: the colonial South, the ante-bellum South, the "New South" and the contemporary South. Students will then work independently on such topics as the Enlightenment in the South, slavery, secession and the Confederacy, leaders of the "New South," the twentieth century literary renaissance in the South.

May be substituted for History 203 in the history major sequence.

Instructor: SCOTT

HISTORY 16 After Tomorrow: Utopias and Utopian Thought

Prerequisite: None

Enrollment limited to 15 Juniors and Seniors

A study of formal utopias (Augustine, More, Bacon, Bellamy, etc.) and anti-utopian thinking (Orwell, Zamiatin, Huxley, Skinner, etc.) as radical critiques of existing societies. Political, economic, social, psychological, and sexual utopias and utopian communities will be examined as imaginative solutions to actual social problems. The class will study the utopian aspects of revivalism, socialism, nationalism, and the hippie movement.

Instructors: WILLIAMS, HOLL

HISTORY-PHILOSOPHY 21 The Nature of Historical Understanding

Interdepartmental project with Philosophy

Prerequisite: History 101-102 (103-104) or Philosophy 101-102

Enrollment limited to 30

A study dealing with such problems as the status of history, its relation to other intellectual disciplines, its unstated philosophical assumptions, the "problem" of objectivity. Three or more common meetings, and then individual work on great historians, on problems of historical understanding, or on the links between history and other fields, such as the natural and social sciences, the arts, etc.

Instructors: OAKLEY, O'CONNOR

**HISTORY 22 The Role of the Great Man in History**

**Prerequisite:** History 101-103 (103-104)

**Enrollment limited to 15**

To what extent can a man by his actions and his words significantly influence the course of history? Students will investigate this question through close study of a "great man" and his time.

**Instructor:** BAHLMAN

**HISTORY 23 Readings in the Diplomacy of the Cold War, 1946-1963**

**Prerequisite:** History 101-102 (103-104)

**Enrollment limited to 15**

A study of the conflict in ideologies and interests between the Communist and non-Communist worlds, with special attention to the period of bi-polar power blocs led by the United States and the Soviet Union. General reading and discussion followed by individual work on such topics as the theory of containment, Truman Doctrine, Marshall Plan, NATO vs. the Warsaw Pact, the Berlin blockade, Korea, McCarthyism, Hungary and Suez, the break-up of the bi-polar world, and the origins of the Russo-American thaw.

**Instructor:** BASTERT

**HISTORY 24 The Frontier Hypothesis in African History**

**Prerequisite:** History 101-102 (103-104)

**Enrollment limited to 15**

Independent research, guided by opening lectures and concluded by class discussions of prepared reports, on any region of the continent which has evolved distinct cultures based on factors of natural and human environment. A guiding theme will be the interrelations of peoples through symbiosis, segregation or conquest.

**Instructor:** MOUTAFAKIS

## MATHEMATICS

The general aim of each of the projects is to provide an opportunity for each participant to experience the intellectual excitement of independent work in mathematics. The chief role of the instructor will be to give encouragement. His usual role of a convenient and ready source of answers to or opinions about any and all questions will be restricted. However, he may point out useful lines of investigation as hints. As a consequence descriptions of projects will identify the area of mathematics involved and some idea of the general aim but give no specification of detailed content.

It is a fact about research and independent work that an essential ingredient for success is exchange of ideas with others of similar interests. The choice of the word similar in contrast to the word same is deliberate. To encourage such exchange of ideas the department hopes to sponsor during the winter study period a coffee or tea hour each day of the week, Monday through Friday. All participants in mathematics projects are invited to attend.

### MATHEMATICS 11 A Sample of Sampling

Prerequisite: None

Enrollment limited to 45. Not open to those who have taken or are registered for Math 140 (104).

Why and how the statistician or pollster samples the way he does. How to draw proper conclusions from samples, and consideration of common mistakes.

Applications to a wide variety of fields. Instruction will involve some preliminary lectures followed by individual readings in an assigned text plus additional suggested sources depending on the student's interest.

Additional optional lectures will be scheduled if the cries of anguish become sufficiently shrill, but ordinarily the student will be expected and encouraged to seek help by individual consultation.

Performance will be determined by a take-home examination. (Students are advised not to enroll unless they have more than a nodding acquaintance with high school algebra.

Instructor: KOZELKA

### MATHEMATICS 12 Mathematics as a Living Discipline

Prerequisite: None

Enrollment limited to 25

The object of this offering is to convince the student who has only minimum preparation (or interest) in mathematics that the course title is indeed true. The realization of this aim will be attempted by introducing him, in a series of lectures covering roughly the first half of the session, to branches of mathematics that are both elementary and active; for the remainder of the session he will select, on the basis of these lectures or his own further reading, an area of concentration and participate in a seminar, with similarly inclined classmates, which will include the preparation of a report. These arrangements are quite flexible and it is possible that some students could participate in the second half of the session on an individual study basis.

Instructor: KURTZ

**MATHEMATICS 13 Mathematics and Social Science**

**Prerequisite:** None

**Enrollment limited to 25**

Development of mathematical techniques which are useful in the social sciences, Applications of some of these tools to problems in Anthropology, Economics, Psychology and Sociology. Lectures and seminars in the first half of the program and independent study in the second; students will choose a problem in the social sciences, amenable to mathematical treatment, and write a paper.

**Instructor:** STAFF

**MATHEMATICS 14 History of Ideas in Mathematics**

**Prerequisite:** None. Not open to students who have completed Math 202

**Enrollment limited to 12**

How mathematical thinking has matured from ancient times to the present within Western culture. Considerations will include the interaction between mathematics and other fields: philosophy, natural sciences, and fine arts. A set of common readings will center on four points in history at which sophistication and abstraction increased sharply: how the Greeks went from a triangle drawn in the sand to statements about any triangle, how Descartes translated geometry into algebra, how Newton and Leibniz turned from problems in a static world to problems about situations in a state of change, and how modern mathematics studies axiomatic systems without regard to interpretation.

Each student will select a particular topic for deeper investigation and a critical paper of moderate length. Sample topics include: the influence of mathematics on music in the Seventeenth Century, the controversy between Newton and Bishop Berkeley, the Kronecker-Brouwer objections to infinite procedures, and the differences between Greek and modern axiomatics.

**Instructor:** HILL

**MATHEMATICS 15 Computer Programming with Applications in Mathematics**

**Prerequisite:** None

**Enrollment limited to 15**

The first half of the course will be group study of the elements of programming, with emphasis on Fortran IV. Students will write programs for the IBM 1130.

During the second half of the course, the group will divide into small teams each of which will use the computer to carry out an individual project in some area of mathematics. The subject matter of each project, and the level at which it is carried out, will be determined by the mathematical background of the students involved.

**Instructors:** JORDAN and Staff

**MATHEMATICS-PHILOSOPHY 23 Truth and Validity in Mathematics**

**Interdepartmental Program with Philosophy**

**Prerequisite: Math 201 or Philosophy 203 (Symbolic Logic)**

**Enrollment limited to 10**

What it means to mathematicians and to philosophers for a mathematical proof to be valid and in what senses they regard its conclusion as a true or false statement.

A set of common readings from Mill, Kant, Frege, Russell, and others will be discussed in about ten meetings. Each student will select a particular topic for deeper investigation and a critical paper of moderate length.

**Instructors: HILL, STINE**

**MATHEMATICS 31 Seminar for Junior and Senior Math Majors**

**Designed for Math Majors but also open to others who are properly qualified**  
**Enrollment limited: 1 - 10**

At the start, the seminar will be a free-wheeling series of problem sessions, with problems drawn from a general context. Typical sources for problems will be Putnam Competition Examinations and the elementary problem sections of various mathematics journals. It is expected that problem solutions will lead to study of papers in journals. This part of the seminar will be conducted on a tutorial basis. Each student will be expected to give a report, written or oral, on papers he has read. The purpose of the seminar is to develop the students' ability to approach and solve problems and to do research in the literature. There will be frequent meetings and no examinations.

**Instructor: FEE MAN**

MUSIC 11 Mediums of Musical Expression

Prerequisite: None

Enrollment limited to 50

A survey, in a non-technical way, of the nature of most of the principal musical forms including the sonata, the symphony, the concerto, the symphonic poem, the oratorio, the string quartet and others. Discussions will include some historical frame-of-reference for each form treated. Extensive listening to examples both in and out of the classroom as well as attendance at one or more live performances of representative works outside of Williamstown, if opportunity permits. Intended as an approach to music for the student without previous musical experience of any kind.

Expense: About \$6.00

Instructor: BARROW

MUSIC 21 Musical Performance (Brass Ensemble)

Permission of the instructor required for registration

Enrollment limited to 20

The program will consist of four parts:

- (1) Rehearsal and discussion of brass music of selected composers of the Renaissance, Baroque, and Contemporary periods.
- (2) Analysis of instrumental performance problems with the instructor, assisted by area professionals.
- (3) Concertizing and a short tour.
- (4) Written report or solo performance expected.

Expense: About \$35 - \$45

Instructor: SHAINMAN

MUSIC 22 Involvement with Contemporary Music

Prerequisite: Music 101, 102, or 103 (old 201, 202, or 203)

Enrollment: 12 to 18; open to both performers and non-performers

Contact with and participation within some aspects of the contemporary musical scene both in Williamstown and in neighboring metropolitan musical centers. Selected prose readings, discussions, rehearsals of new works, and attendance at live musical performances. The course culminates in a production of Benjamin Britten's one-act opera for male voices, "Curlew River"; to be presented by the class as a Winter Study project on Monday, 29 January 1968.

Expense: About \$25 - \$30

Instructor: ROBERTS

## PHILOSOPHY

### PHILOSOPHY 11 Plato

Prerequisite: None. In admission preference is given to freshmen

Enrollment limited to 20

An introduction to philosophy through Plato's dialogues. Class meetings and independent work on a paper.

With the permission of the department Philosophy 11 may be combined with Philosophy 102 for entry to the major.

Instructor: VERSENYI

### PHILOSOPHY 12 The Domain of Philosophy

Prerequisite: None

Enrollment unlimited

When is a problem a philosophical problem? An introduction to philosophy by means of distinguishing those problems that demand a philosophical approach from those proper to mathematics and experimental science. Materials drawn from the history of philosophy will be discussed in class. A paper will be required.

With permission of the department Philosophy 12 may be combined with Philosophy 102 for entry to the major.

Instructor: STINE

### PHILOSOPHY-HISTORY 21 The Nature of Historical Understanding

Interdepartmental Project with History

Prerequisite: History 101-2 (103-4) or Philosophy 101-2

Enrollment limited to 30

A study dealing with such problems as the status of history, its relation to other intellectual disciplines, its unstated philosophical assumptions, the "problem" of objectivity. Three or more common meetings, and then individual work on great historians, on problems of historical understanding, or on the links between history and other fields, such as the natural and social sciences, the arts, etc.

Instructors: OAKLEY, O'CONNOR

### PHILOSOPHY-PSYCHOLOGY 22 Survey of Freud's Theories

Interdepartmental Project with Psychology

Open to any philosophy or psychology major, or to those who have had both Philosophy 101 and Psychology 101 (formerly 201)

Enrollment limited to 30

A study of Freud's early and later theories concerning psychological dynamics and structures. The course deals with both the philosophic consequences of Freud's thought and its relevance to the data of psychology.

One meeting per week with each instructor plus one voluntary session per week in each field for those especially interested in particular problems. Readings and a paper.

Instructors: DOWNING and ROUSE

PHILOSOPHY-MATHEMATICS 23 Truth and Validity in Mathematics

Interdepartmental Project with Mathematics

Prerequisite: Math 201 or Philosophy 203 (Symbolic Logic)

Enrollment limited to 10

What it means to mathematicians and to philosophers for a mathematical proof to be valid and in what senses they regard its conclusion as a true or false statement.

A set of common readings from Mill, Kant, Frege, Russell, and others will be discussed in about ten meetings. Each student will select a particular topic for deeper investigation and a critical paper of moderate length.

Instructors: HILL, STINE

PHILOSOPHY 31 William James and Pragmatism

Prerequisite: Philosophy 101-2

Enrollment unlimited

Main features of the best-known American contribution to modern philosophy. Several class meetings and independent work on a paper.

Instructor: BEALS

## PHYSICS

### PHYSICS 11 Introductory Physics

**Prerequisite:** High school physics and Mathematics 101 or equivalent, and consent of the department.

This study is intended to prepare the students with high school physics to enter Physics 104 (or 102) and at the same time to provide a view of the nature and demands of physics as a major field of study.

Some classes and demonstrations. Independent reading and problems. Three laboratory exercises with reports.

While this route will admit a student to Physics 104 (or 102) it does not have complete equivalence to Physics 103 (or 101) and additional work will be required prior to entry into Physics 201. This course will not replace Physics 101 or 103 for medical school requirements.

**Instructor:** STABLER and Department Members

### PHYSICS 12 Nuclear Physics and Nuclear Energy

**Prerequisite:** Facility with high school algebra. Physics and Chemistry majors are excluded

**Enrollment limited to 30**

The fundamental physics needed for the understanding of the nucleus, nuclear energy, and creation and annihilation of matter and antimatter will be presented, followed by independent reading culminating in a written paper. No laboratory.

**Instructors:** WINCH and CRAMPTON

### PHYSICS 21 Experimental Electronics

**Prerequisite:** Physics 102 or 104, or an advanced standing course in high school physics, or consent of instructor

**Enrollment limited to 16**

Basic DC and AC circuit relations and measurements; the use of multi-meters, oscilloscopes, amplifiers, and signal generators; programmed sequence experiments in solid state electronic circuits.

The study is intended to impart some familiarity with the basic electronic instruments and devices which today pervade all laboratories.

Nine 90-minute class meetings, reading, unlimited laboratory hours. Laboratory notebooks but no reports. No term papers, no examinations.

**Instructors:** STABLER, CRAMPTON and PIERCE

### PHYSICS 31 Use of a Computer in Physics

**Prerequisite:** Consent of instructor

**Enrollment limited to 4**

Purpose of this work is to introduce students to the computer as a tool for solving complex problems in the physical sciences. There will be preliminary lectures if needed; the aim is to produce one or more successful computations.

**Instructor:** PARK

**PHYSICS 33** Intensive Library Study of a Subject not in the Curriculum

Prerequisite: Approval of instructor. For junior and senior physics majors  
Enrollment limited to 5

Possible topics are superconductivity, the theory and structure of particle accelerators, relativistic quantum mechanics, and general relativity.

Reading and conferences with the instructor, culminating in a report giving a summary of the subject or the results of an independent investigation.

Instructor: PARK

**PHYSICS 34** Senior and Master's Theses

Prerequisite: Consent of Department  
Enrollment limited to 10

Continuation of thesis research under the direction of thesis advisers. Required of all senior Honors and MA degree candidates, except that in 1968, a senior Honors candidate is relieved of this requirement if he wishes.

Instructors: F. BROWN, CRAMPTON, PIERCE, STABLER

## POLITICAL SCIENCE

### POLITICAL SCIENCE 11 Introduction to the History of Western Political Theory

Prerequisite: None  
Enrollment unlimited

An intensive "outline of history" of Western Political Thought from the Greeks to the present -- i.e., major writers and dominant problems and attempts at solution through the centuries. This will be a concentrated lecture course, meeting daily. Common required reading will be assigned. Each member of the class will write a brief paper on the life, times, and thinking of a selected political philosopher.

With permission of the department this project may be combined with Political Science 101 or 102 for entry into the major.  
Instructor: SCHUMAN

### POLITICAL SCIENCE 12 Public Order in the Urban Community

Prerequisite: None  
Enrollment unlimited  
Expense: About \$50, if a field trip can be arranged

A study of the administration of justice and theories of law and order under conditions of modernization and multiple communities. Readings, class discussion, field trips, and written reports on field observation.

With permission of the department this project may be combined with Political Science 102 for entry into the major.  
Instructor: C. BROWN

### POLITICAL SCIENCE-PSYCHOLOGY 21 Social Science Research Techniques: A Critical Evaluation

Prerequisite: Psychology 101 or Political Science 101 (103)  
Enrollment limited to 15 students  
Facilities: Data and data processing equipment at the Roper Center

The central purpose is to evaluate critically some of the main empirical research techniques commonly used in the social sciences today. These include quantitative content analysis, sample survey, attitude scaling, observational techniques, etc. The course is designed around a central topic, - e.g., the political bias of the mass media of communication, inter-individual (or intra-population) differences in political involvement, etc. The class is assigned a common core of reading, introducing them to a variety of research techniques. In addition, each student selects a research technique of special interest to him, reads more extensively about it, and executes a minor project in which the research tool he has chosen is used. Individual evaluative reports are submitted and discussed at the end of the winter session.

Instructor: HASTINGS

POLITICAL SCIENCE 22 The Political Perspectives of the Military Mind:  
A Comparative Analysis

Prerequisite: Political Science 101 (103)

Enrollment limited to 20

After a few meetings to discuss readings on the strategic and political thought of professional soldiers in the United States and France, small committees will analyze the ideological content of military journals, speeches, technical manuals of the U.S. Department of Defense on counter insurgency and strategic bombing, and (for comparison) the writings of top civilian strategists and game theorists. During the last week of the session, the committees will report their findings and compare their results. The reports will be made available to the class ahead of each discussion meeting.

Instructor: TAUBER

POLITICAL SCIENCE 23 The Mind and Faith of Justice Holmes

Prerequisite: Political Science 101 (103) or junior standing

Enrollment restricted to 15 students with preference given to upperclassmen

Intensive study of Justice Holmes' writings, opinions, and correspondence will provide the basis for seminar discussions and several very short papers.

Instructor: BEISER

POLITICAL SCIENCE 25 Community Development and Village Attitudes in  
India

Prerequisite: Political Science 101 (103), 102 (104)

Enrollment limited to 15 students

A contrast between the logic and style of community development efforts in India and the village attitudes and problems detailed in a variety of studies from various provinces in India. Each student will prepare a paper focusing on one village. Class discussions three times a week.

Instructor: GAUDINO

POLITICAL SCIENCE 26 Internal War

Prerequisite: Upperclass standing, or permission of the instructor

Enrollment limited to 15 students

Class discussions of assigned readings analyzing the causes, nature, and implications of internal war will be followed by individual student case studies (e.g., Vietnam, Nigeria, Dominican Republic) for presentation in seminars during the final week.

Instructor: SUTCLIFFE

**POLITICAL SCIENCE 27 International Politics: Simulation**

**Prerequisite:** Political Science 201

**Enrollment:** This course will be given only for 15 or more students

After three or four meetings to discuss readings in theories of international politics, short games or simulated situations in international politics will be conducted with students playing various roles as national decision-makers. Implications and hypotheses derived from these exercises will be discussed jointly and written up individually in final student papers.

**Instructors:** M. BROWN, BOOTH

**POLITICAL SCIENCE 28 Urban Turmoil: Race Crises in America**

**Prerequisite:** Political Science 101 (103)

**Enrollment** limited to 8 students

**Expenses:** Students must be able to finance their own travel and lodging during any research trips

The course will attempt to theorize about the causes and conditions that lead to the occurrence of "race riots" in American cities. In addition, each participant will be expected to do a piece of research on the problem; materials may be drawn from contemporary events, may be directly collected (although due to the short time available this may prove difficult), or use secondary or historical materials. A paper reporting the results of the research and its implications for the theory used will be the major criteria for evaluation.

**Instructor:** MARCUS

**POLITICAL SCIENCE 31 Senior Thesis**

**Instructors:** Members of Department

## PSYCHOLOGY

### PSYCHOLOGY-BIOLOGY 11 Aggression in Society: Inherited or Acquired?

Interdepartmental Project with Biology

Prerequisite: None

Enrollment limited to 25. No junior or senior majors from the Psychology or Biology Departments admitted.

Recent biological concepts cast doubt on classical interpretations of aggression. This course examines the roles of territoriality and social hierarchy in primate and other animal populations and the possible relevance of these to human behavior.

Two orientation lectures followed by weekly day-long group discussions led by the instructors and outside visitors. Readings.

Instructors: GRANT and MCGILL

### PSYCHOLOGY-POLITICAL SCIENCE 21 Social Science Research Techniques: A Critical Evaluation

Interdepartmental Project with Political Science

Prerequisite: Psychology 101 (formerly 201) or Political Science 101

Facilities: Data and data processing equipment at the Roper Center

Enrollment limited to 15

The central purpose is to evaluate critically some of the main empirical research techniques commonly used in the social sciences today. These include quantitative content analysis, sample survey, attitude scaling, observational techniques, etc. The course is designed around a central topic, - e.g., the political bias of the mass media of communication, inter-individual (or intra-population) differences in political involvement, etc. The class is assigned a common core of reading, introducing them to a variety of research techniques. In addition, each student selects a research technique of special interest to him, reads more extensively about it, and executes a minor project in which the research tool he has chosen is used. Individual evaluative reports are submitted and discussed at the end of the winter session.

Instructor: HASTINGS

### PSYCHOLOGY-PHILOSOPHY 22 Survey of Freud's Theories

Interdepartmental Project with Philosophy

Open to any philosophy or psychology major, or to those who have had both Philosophy 101 and Psychology 101 (formerly 201)

Enrollment limited to 30

A study of Freud's early and later theories concerning psychological dynamics and structures. The course deals with both the philosophic consequences of Freud's thought and its relevance to the data of psychology.

One meeting per week with each instructor plus one voluntary session per week in each field for those especially interested in particular problems. Readings and a paper.

Instructors: DOWNING and ROUSE

PSYCHOLOGY 23 Hypnosis

Prerequisite: Psychology 101 (formerly 201)

Enrollment limited to 25

A study of the theories of the hypnotic state, of factors which may affect susceptibility to hypnosis, and of representative hypnotic phenomena. The use of hypnosis in psychological research and in clinical settings will be emphasized.

Two orientation lectures followed by discussion sessions each week.

Assigned readings, term paper or empirical project.

Instructor: IMM

PSYCHOLOGY 24 Punishment

Prerequisite: Psychology 101 (formerly 201)

Enrollment limited to 25

A study of recent experimental research on negative reinforcement and incentives, aversive stimulation and punishment. The effects of these are compared with the influences of other methods of shaping behavior.

An orientation lecture followed by twice-a-week seminar discussions.

Readings and a paper or empirical project.

Instructor: TARPY

## RELIGION

### RELIGION 11 Introduction to Religion: A Comparison of Ancient Greek and Hebrew Self-Understanding

Prerequisite: None

For freshmen and sophomores who have had no previous work in the field

A consideration of basic problems in the meaning and interpretation of religion by appeal to a comparison of ancient Greek and Hebrew modes of expression. The course will attend to the following topics: history and myth in the earliest epic traditions (the Iliad and the Yahwistic narrative in the Old Testament), the repetition of epic themes and the rise of individuality among the Greek lyric poets and the Hebrew prophets of the 7th-6th century B.C., the emergence of prophecy in Israel and philosophy in Greece as analogous modes of "breaking the myth," and the transition from primitive to rational society in Greek tragedy (Oresteia) and in the Hebrew wisdom movement and Job. Readings and two or three discussions a week, plus a final paper.

Instructor: FOX

### RELIGION 21 Problems in Theological Ethics

Prerequisite: Religion 101 or 102 or 305 or Philosophy 101-102  
or Political Science 301 or 302

An examination of some of the salient issues and themes in the contemporary theology-and-ethics discussion, with special focus upon such matters as the relationship between love and law and the debate over the place of "situation" and "principle" in ethical discourse. Some attention will be given to the contribution that is being made to ethical theory by recent developments in empirically oriented philosophical studies. Readings, two or three discussions a week, plus a final paper.

Instructor: LITTLE

## RUSSIAN

### RUSSIAN SP Sustaining Introductory Program (101 - W - 102)

Prerequisite: Russian 101

Enrollment: All students taking Russian 101

This is a non-credit sustaining program which every student enrolled in Russian 101 must take and pass in order to be admitted to Russian 102. Introductory language instruction continues, but with a strong shift of emphasis toward oral and laboratory work. Students meet with instructor 3 days a week and spend one hour in the lab on the 3 other days. Conducted in Russian so far as feasible. The program ends with an oral proficiency examination based on the conversational material covered.

Instructor: FERSEN

### RUSSIAN 11 Origins of Dostoievski's Thought (1845-1866) In English

Prerequisite: None

Enrollment limited to 15

A study of sources sought after and used by Dostoievski in the development of his philosophical and esthetic outlook. The influence on him of Pushkin and Gogol. Reading: the short stories Station Master by Pushkin; Nevski Prospect, Nose, Greatcoat by Gogol; Poor Folk, Double by Dostoievski; and the novel Crime and Punishment by Dostoievski. Two weekly meetings with instructor. Final paper (10-15 pp.). The pass-fail grading will be based on final paper and class performance.

Instructor: GONCZAROW

### RUSSIAN 21 Intensive Reading of Literary Prose (123 - W - 126)

Prerequisite: Russian 123, or its equivalent, with permission of Department  
Enrollment limited to 8

Intensive study of the language continues, bearing in mind that the students have already covered basic grammar and are ready for fruitful, eye-opening reading. 5 weekly meetings with instructor. Daily reading, explanation and analysis of non-graded, original Russian literary texts. Students are required to participate in oral discussions and to demonstrate their understanding via written reports on the material covered. Conducted entirely in Russian. The final pass-fail grading will be based on daily class performance and on quality of written work.

Instructor: MRS. deKEYSERLINGK

## SPANISH

### SPANISH Sustaining Program for Spanish 101-W-102

This course will meet for three sixty-minute periods each week during the Winter Study period. Its purpose is to maintain and strengthen the basic language skills (listening, speaking, reading, and writing) acquired during the previous semester. The sustaining course is required of all students registered for Spanish 101-102. Honors candidates may be excused from the sustaining course with the permission of the department. Credit for Spanish 101 will be given only if the student successfully completes the sustaining course and 102.

Instructor: GARCÍA

### SPANISH 21 The Philosophical Novels of Miguel de Unamuno (in Spanish)

Prerequisite: Spanish 108

Enrollment limited to 15 students.

A critical analysis of the major novels of Spain's leading existentialist, with special emphasis on their relationship to such non-fictional works as Del sentimiento trágico de la vida and La agonía del cristianismo. Stress will be placed on Unamuno's importance in Spanish literature as well as his position in the world of modern European thought.

The project will consist of two introductory lectures, individual conferences, and a final essay of approximately 2000 words.

Instructor: PIPER