

HAMPSHIRE COLLEGE

Revised Course Guide 1978-79

Hampshire College Amherst, Massachusetts 01002

August 1978

REGISTRATION AND COURSE SELECTION

1. Check the Course Description Guide thoroughly for enrollment methods. Some courses will hold lotteries the first day of classes, others will either have sign-up sheets or interviews. Thursday-Friday, September 7-8, will be used for course interviews, where specified. Some faculty may be available prior to this; however, all faculty will have office hours posted for some time to be available for interviews (where enrollment is limited), prior to the beginning of classes.
2. After attending classes for a week, you should be ready to decide in which ones you wish to be enrolled. Class list forms, provided by Central Records, will be distributed the second week of classes. Sign the list for each course in which you wish to be enrolled. The lists will be forwarded back to Central Records, and they will do the rest of the work. *PLEASE - Clearly Print your full name, first/middle/last, no nicknames.*
3. Students taking ASPP courses at the other schools, and Division III students taking no courses, should sign the appropriate lists at Central Records.

NOTES:

- A. 5-College Interchange Applications are available at Central Records. Be sure they are completely filled out and have all the necessary signatures (if they are incomplete they may have to be returned to you, causing delays which might affect your ability to get into a particular course). The deadline for filing Interchange Applications is Friday, September 15. No Five College courses may be added after this date. Familiarize yourself with all the rules, regulations and penalties associated with 5-College Interchange. They are all listed in the Student Handbook, and it is your responsibility to be aware of them.
- B. Independent Study forms are available at Central Records and the Advising Centers. They should be completed during the first two weeks of Fall Term 1978.
- C. Although 5-College students should sign Hampshire class lists (clearly indicating their home institution), they are still responsible for filing Interchange Applications at their own school.

If you have any questions regarding this procedure, please contact Central Records, extension 420.

NOTE TO FIVE-COLLEGE STUDENTS:

Hampshire College courses require different modes of enrollment, depending on instructor and course. All students should refer to the schedule of class meeting times to find the method of enrollment for an individual course. Courses with open enrollment do not require permission of instructor.

Grades will be offered to interchange students except where noted otherwise in the course description. Interchange students should discuss this with the instructor during the first week of classes.

Although Five College students may participate in lotteries and sign class lists, they are still responsible for filing the 5-C Interchange Form with their home institution.



HAMPSHIRE COLLEGE ACADEMIC PROGRAM

DIVISIONS:

Students at Hampshire College progress through three sequential Divisions: Basic Studies, the Concentration, and Advanced Studies, moving steadily toward greater independence in study. This Divisional framework, which replaces the conventional freshman-senior sequence, is designed to accommodate individual patterns of learning and growth.

Each Division marks a stage in the student's progress toward understanding and mastery of the subjects the student chooses for study and each of these has its own distinctive purposes and procedures.

Division I: The Division of Basic Studies introduces students to the aims and methods of liberal education at Hampshire College, giving them limited but direct and intense experience with disciplines in all four Schools. This is done not in the customary introductory survey courses, but through class examination of particular topics of study in courses or seminars stressing the method of inquiry. Students in the first division learn how best to inquire into subject matters, how to understand their own educational needs and abilities, and how to develop the arts of self-instruction as they apply to their own style of learning. Students must pass a Division I examination in each School.

Division II: In the Concentration the student develops a concentration in one or more fields while continuing to explore other areas. Students determine with their faculty adviser what they want to achieve in their concentration, and design a program of study which will allow them to explore in depth one or more disciplines within one or more of the four Schools, and to broaden their knowledge of the linkages among disciplines. The Division II examination includes evaluation of the work done in the Concentration and the student's readiness to proceed to advanced independent work.

Division III: The Division of Advanced Studies occupies students with advanced studies in their chosen concentration and integrative studies across disciplines. The student designs and completes an independent study, project, or original work normally requiring half of his or her time for one academic year. In addition, students participate in advanced integrative work in which they encounter a broad and complex topic requiring the application of several disciplines, and in some other activity in which they share their increasingly sophisticated knowledge and skills with other members of the Hampshire community or the broader community.

ADVISING:

New students at Hampshire are assigned to an Adviser from one of the Schools for initial advice on choice of courses and other academic matters. After the first month, students may choose a new Adviser. Changing of Advisers is a relatively simple process done in consultation with the Associate Dean for Advising. The Associate Dean for Advising (Courtney Gordon, Cole Science Center) also assists students who are having problems with progress through examinations, working with both students and their Advisers.

The Options Office (Cole Science Center) offers advice and assistance in the areas of career counselling, graduate school applications, field study, and study abroad. The School Advising Centers, the Whole Woman Center, and the Third World Advising Center are sources of assistance for formulating Division I course and Division II and III contracts, as well as for more general advice on the academic programs available at Hampshire and at the other colleges in the Valley.

REGISTRATION DATES AND CALENDAR

1978:

New students arrive, matriculate	Tuesday, September 5
Returning students arrive, matriculate	Wednesday, September 6
Course interview days	Thursday, September 7 - Friday, September 8
Fall Colloquy	Thursday, September 7 - Sunday, September 10
Class begin	Monday, September 11
Five College registration	Monday, September 11 - Friday, September 15
Course selection period	Monday, September 11 - Friday, September 22
Mid-term break; no classes	Monday, October 9 - Tuesday, October 10
Examination days; no classes	Wednesday, October 25 - Friday, October 27
Advising, Five College pre-registration	Monday, November 13 - Friday, November 17
Leave notification deadline	Wednesday, November 15
Examination days; no classes	Monday, November 20 - Tuesday, November 21
Thanksgiving vacation; no classes	Wednesday, November 22 - Sunday, November 26
Last day of classes	Wednesday, November 26
Evaluation period	Thursday, December 14 - Wednesday, December 20
Winter recess; no classes	Thursday, December 21 - Tuesday, January 2

1979:

January Term	Wednesday, January 3 - Tuesday, January 13
Recess between terms	Wednesday, January 24 - Sunday, January 28
New students arrive, matriculate	Saturday, January 27
New student program	Saturday, January 27 - Monday, January 29
Returning students arrive, matriculate	Monday, January 29
Course interview day	Monday, January 29
Classes begin	Tuesday, January 30
Course selection period	Tuesday, January 30 - Monday, February 12
Five College registration	Tuesday, January 30 - Friday, February 9
Examination days; no classes	Monday, February 26 - Tuesday, February 27
Spring recess; no classes	Saturday, March 17 - Sunday, March 19
Leave advising; no classes	Wednesday, April 4
Leave notification deadline	Friday, April 6
Advising, Five College pre-registration	Monday, April 23 - Friday, April 27
Examination days; no classes	Wednesday, April 25 - Friday, April 27
Last day of classes	Wednesday, May 9
Evaluation period	Thursday, May 10 - Wednesday, May 16
Examination period	Thursday, May 17 - Wednesday, May 23
Commencement	Saturday, May 26

NOTE: PLEASE DO NOT DISCARD THIS COURSE GUIDE. RECYCLE IT, OR SAVE IT FOR FUTURE USE.

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FALL TERM 1978

SCHOOL OF HUMANITIES AND ARTS
CURRICULUM STATEMENT

In these course listings you will find a quite astonishing range of offerings for the Fall Term. Remember this at the outset as you begin to plan your studies for Division I: the courses in Division I are not intended to serve as introductions to this or that subject matter, but as *introductions to modes of inquiry*.

The difference is so critical that you will underestimate it only at the peril of promoting your own confusion. Each of the great, traditional disciplines of study (English, History, Philosophy, Music, etc.), rather than being treated as a closed system of knowledge in itself, is treated as a perspective on the disciplines of inquiry, discovery and creation.

There are observably different ways in which the artist and humanist (as contrasted, say, with the scientist) approach their subjects of study, conceive of their problems, attack them, resolve them, report them, or express them, and that is the main matter of concern in any Division I course.

If you take a course with a literary scholar, for example, or with a philosopher, you will learn how a specific kind of humanist, who has mastered one great body of materials in the humanities, illustrates the general modes of inquiry employed by humanists in a variety of circumstances. It might come down to library methods, the mechanics of analysis, the selection and validation of documentary data or the techniques of argument, but the overriding concern will be to show you a working humanist in action up close. In the arts there is a much greater emphasis necessary on perception and expressive form, but the model should operate the same way.

You will find courses in Dance, Music, Theatre and Writing listed for Divisions I and II. Work in these courses is felt to be of a kind that deals with basic issues that stay alive at all levels of work, where problems are not "solved" but approached repeatedly at all levels of sophistication. Speak to the instructor at the first class if you find yourself uncertain about differing requirements for students in Division I or Division II.

When you come to take your Division I comprehensive examination in Humanities and Arts, you will work on some problems that represent the next order of complexity beyond what you have already studied. No recap of the course, with spot passages or memorized list of terms—none of that. The purpose of that examination will be to determine diagnostically if you are ready to go on to work in more complex problems, so it will be much more like an entrance exam to Division II than any exam you've had previously. We have kept the course descriptions as simple and honest as possible. Where it says "seminar" it means regular discussion group meetings in a class no larger than twenty students. Where it says "workshop" the size of the group should be the same, but the style of work will involve more moving away from the discussion table to some hands-on experience in the studio or out with field problems.

Those of you entering Division II courses will find that they are more typically focused on some special problem within an academic discipline—for example, the dialogues of Plato or the poetry of Eliot, or that they deal with a general problem in the arts or humanities at a much higher order of complexity than is usual in the first Division. The same emphasis will be placed, however, on the interplay of the humanities and the arts.

Perhaps we in this School are most eager to try this academic experiment of putting the Humanities and Arts to work together because we share the sense of Erich Fromm about the good that "flows from the blending of rational thought and the unconscious into schizoid functions are torn apart, and the feeling deteriorates into neurotic life-damaging passions."

Integrative seminars flow from the needs of Division III students and will be organized late in the Spring Term. They will appear in the *Revised Course List* before the beginning of the Fall Term.

SCHOOL OF HUMANITIES AND ARTS

DIVISION I

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DEVELOPMENT OF HUMANS HA 105	Ross
GRAPHIC DESIGN WORKSHOP HA 109	Doherty
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THE DESIGN RESPONSE HA 111	Kramer
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A SENSE OF SELF: WOMEN AND WILDERNESS HA 125 (OP 127)	Greenberg
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THE MAN-MADE ENVIRONMENT HA 136	Juster, Pope L. & G. Crattano
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HA 180

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WRITING
HA 114/214

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HA 115/215

VOICE FOR THE ACTOR
HA 117/217

POETRY WRITING WORKSHOP
HA 131/231

AFRO-AMERICAN CHAMBER ENSEMBLE
HA 153/253

FICTION WRITING WORKSHOP
HA 163/263

A HISTORICAL PERSPECTIVE OF AFRO-AMERICAN
MUSIC
HA 172/272

HERE AND NOW: AN EXPERIENTIAL AND
THEORETICAL INTRODUCTION TO GESTALT THERAPY
HA 181/281

DIVISION II

FILM WORKSHOP II
HA 210

SEMINAR IN COMPARATIVE RELIGION
HA 211

EFFORT/SHAPE: LANGUAGE OF MOVEMENT AND
OBSERVATION
HA 213

FILM/PHOTOGRAPHY STUDIES: INDIVIDUAL
PROBLEMS IN FILMMAKING, PHOTOGRAPHY, AND
RELATED MEDIA
HA 220

THE INTELLECTUAL AND SOCIAL HISTORY OF
SPANISH AMERICA
HA 221

PHOTOGRAPHY WORKSHOP II
HA 225

TIME-SPACE LABORATORY
HA 226

THEOLOGY
HA 228

POETRY WRITING WORKSHOP
HA 231

GROUP INDEPENDENT STUDY IN ELECTRONIC
MUSIC COMPOSITION
HA 232

AMERICAN LITERARY REALISM: MARK TWAIN, HENRY
JAMES, JEFFERSON CRANE, THEODORE DREISER
HA 236

D. H. LAWRENCE AND THE NOVEL
HA 237

MYTHS: AN INTERDISCIPLINARY APPROACH
HA 241

THE NATURE OF HISTORICAL KNOWLEDGE
HA 244 (OP 245)

INTERMEDIATE SCIENCE STUDY
HA 248

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HA 250

THE NEW YORK FILM FESTIVAL
HA 251

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HA 254

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HA 256

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HA 257

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HA 258

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HA 270

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HA 277

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HA 280

THE MUSICAL HERITAGE OF THE WEST
HA 287

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HA 299

Gee

J. Hubbs

Payne

F. McClellan,
Huston

Necklin

Salkey

Wood

Salkey

Wood

L. Gordon,
G. Gordon

Liebling

Meagher
Hudson

F. McClellan

Liebling

Marquez

Arnold

Hoener

Bradt

Goldensohn

R. McClellan

Lyon

C. Hubbs, Neill

Hubbs, Hubbs

Lyon

Abady

F. Smith

Joslin

Juster, Pope

Meagher

Superior

Meagher

Bradt

R. McClellan

Kennedy

Murray

R. McClellan

Halsey

HA 101 DRAWING ONE-ON-ONE

Roy Superior

An introductory, basic, elementary, beginning, primary, and initial investigation of fundamental, preliminary, rudimentary, simplified, maybe even casual studies of the art of drawing, as investigated via exercises both timeless and innovative.

Starting with the question of what is a pencil, we will rapidly move to what is a piece of paper, and then face the complex issue of what is a mark. Through exercises (deliberately performed) we will explore aspects of: line quality, contour, modeling of form, illusions of space, pictorial organization, and elements of simple perspective.

In addition to motor control coordination betwixt hand and eye, drawing involves the brain. Therefore, some exercises will deal with processes of thought and imagination. Emphasis will be given to perceiving whether or not the visual intent coincides with the graphic result.

Many exercises must be approached more than once to be effective, so the students will be expected to have faith and energy to work hard outside of the class meetings which, incidentally, will be twice a week for two hours. Of course, you must provide your own materials and initiative.

Although intended mainly for the novice, some advanced students should not rule out the possibility of having their batteries recharged. There will be group critiques and portfolio review for evaluation.

Enrollment is open.

HA 105 DEVELOPMENT OF HUMANS

Nabel Ross

See course description in the Emeriti Program section.

Emeritus professor of human development.

HA 109 GRAPHIC DESIGN WORKSHOP

Phillip Doherty

This workshop is designed to involve the student in the process of visual thinking and communication through the application of design principles and typography. An understanding of letterpress and screenprinting will be developed as an aid in solving both theoretical and practical design problems.

Students will be encouraged to design and print posters through Hampshire Graphic Design. Involvement in this campus design service will give students the chance to deal with the artistic problem presented by a client, and to participate in a small business.

Classes will meet twice weekly for two-hour sessions. These sessions will include demonstrations, slide lectures, and critiques of work. Students will be expected to spend large amounts of time working out of class with the instructor and with each other. Enrollment is limited to 16.

*Pending appointment.

HA 110 FILM WORKSHOP I

Thomas Joslin

This course is concerned with the film as personal vision; the film as collaborative effort; the meaning of thinking visually and kinesthetically; and film as personal expression, communication, witness, fantasy, truth, dream, responsibility, self-discovery.

The workshop will be concerned with production and seminar discussion, field problems, and research. Topics will include history and development, theories of film construction, camera, directing, editing, sound, narrative, documentary, experimental films, use and preparation, super-8 and 16mm production.

The past seventy-five years have seen the motion picture rise to the position of an international language. It has transcended the bounds of entertainment to provide everlasting documentation of the world, its people and events. It has given added scope and incisiveness to every area of human activity. Our image and understanding of the world more often are gained through film and photographs than personal experience. The aesthetics and techniques of a medium so broad in implication should be understood by all.

A \$15.00 laboratory fee is charged for this course. The College supplies equipment, special materials, and general laboratory supplies. The student provides his/her own film.

The class will meet once a week for four hours. Enrollment is limited to 12.

HA 111 THE DESIGN RESPONSE

W. Wayne Kramer

A study of theatrical design modes and concepts, the course will emphasize the creative response of the major theatre design areas (set, lights, costumes, etc.). We shall also try to discover how the artist reacts to the script and translates that reaction into communication modes for other theatre artists and audience. We will look at color, texture, and line in theatrical design as well as the vocabulary of the designers.

The class will meet twice weekly for 1½-hour sessions. Enrollment is limited to 15.

HA 113 THE MUSIC OF BACH

Henry Nishkin

See course description in the Emeriti Program section.

*Emeritus professor of music.

HA 122 PAINTING WORKSHOP AND CRITIQUE

Joan Bartley Murray

The focus of this course will be the exploration of three distinct but interrelated aspects of painting. It will be a combination of problem solving, critique, and studio workshop.

We will work on assigned painting problems, such as color mixing and progressions, different ways of creating line with paint, form exploration, and the use and creation of texture with paint. This will be started during class, to be completed outside of class. We will be using water base paint media for these studies in water color, acrylic, etc.

Students will also be asked to work on their own paintings, in the medium of their choice, outside of class. When it seems appropriate, students will be requested to deal with particular problems or foci in their paintings.

The class will meet once a week for three hours. Enrollment is limited to 15.

HA 125 A SENSE OF SELF: WOMEN AND WILDERNESS

Judy Greenberg

See Outdoors Program course description.

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HA 163/263 FICTION WRITING WORKSHOP

Andrew Salkey

This workshop will emphasize as its guiding principle that all our workshop fiction writing should be done primarily for the reception and delight of our own workshop members and with them uppermost in mind, for after all we are our very first audience and group approval is vitally important as a source of confidence. Our writers should be realistic about being attentive readers and listeners to the work of other writers in the group is essential practice; and of course, our readership and audience will grow and move outward as we grow and move along as writers.

The workshop will be a forum for the relaxed reading, however extended, of short stories, novels-in-progress, plays, and other expressions of fiction produced by its members.

We will introduce and develop the necessary skills with which our writers will learn to regard, examine, and write fiction as a display of the imagination in terms of narrative, characterization, intention, and meaning; and those elements will be studied closely, not so much from approved external models as from the written work of our own class.

We will try to demonstrate that the practice of fiction ought to be manifestly about the creative description of human relationships in society, in spite of our inspired creativity, in spite of our quicksilver flights of imagination.

We will encourage both on-the-spot oral critical analysis and considered manuscript-reviewing. We will, at all times, allow the writing and lively analytical discussion of all forms of literary composition within the genre of fiction, however tangential, however idiosyncratic; our fiction writers will be encouraged to take any literary risk they may feel to be important to their development.

The class will meet once a week for 14 hours. Enrollment is limited to 18, and permission of the instructor is required.

HA 172/272 A HISTORICAL PERSPECTIVE OF AFRICAN-AMERICAN MUSIC

Vishnu Wood

This lecture class will consist of a historical study of African-American music. The areas of concentration will be:

African tribal music - Pygmies, Ashanti, Yoruba, etc.
Caribbean music - Mighty Sparrow
Reggae - 1950's, New Orleans, Buddy Bolden, Louis Armstrong
Spirituals - Nat King Cole
Blues - Field hollers, work songs, spirituals
Big Bands - 1930's, Swing era, Duke Ellington
Soul - 1950's, Charlie Parker, 1940's
Jazz-rock - 1960's, John Coltrane
Jazz-rock - 1970's, Herbie Hancock, Chick Corea

This class will consist of an in-depth study of these music and will climax with a live performance of top professional artists. Students of the class will present by way of narration the different historical periods in performance.

The class will meet twice weekly for two-hour sessions. Enrollment is open.

HA 181/281 HERE AND NOW: AN EXPERIMENTAL AND THEORETICAL INTRODUCTION TO GESTALT THERAPY

Linda Gordon and Graham Gordon

In this course we will explore together the theoretical concepts that underlie the exciting and innovative approach that have come to be known as Gestalt Therapy. Since it is a contradiction in terms to "talk about" Gestalt work, we will do this in the framework of an experiential approach. We will use our own experiences as a laboratory for Gestalt work. We will have the opportunity to learn more about ourselves and to integrate the conceptual work in a way that will leave them free to use their own creativity in their interactions with others. We expect this class to be a vehicle for both personal and intellectual growth.

We will meet twice a week for two-hour sessions and the group will be limited to 18 members. Entrance to the class will be by interview with one of the instructors.

HA 210 FILM WORKSHOP II

Jerome Liebling

A workshop to help the student continue to develop his/her use of film toward the development of a personal vision. Specific areas of concern are: (1) the film as a tool for environmental and social change; (2) aspects of the experimental film, its aesthetics, energy, and personal vision; and (3) expanded cinema—new movements in film aesthetics.

The course will involve lectures, field work, seminars, and extensive production opportunity. It is for students who have completed film, photography or TV classes in Basic Studies, or their equivalent—or permission of the instructor.

There will be a lab fee of \$15.00. The class will meet once a week for four hours. Enrollment is limited to 12.

HA 211 SEMINAR IN COMPARATIVE RELIGION

Robert Mesinger and Dennis Hudson*

The theme of this seminar will be a comparative study of the Bhagavad-Gita and St. Augustine's *Confessions*, two texts which have been formative in the development of Hinduism and Christianity respectively. In addition to a careful reading of these two texts aimed at a substantial understanding of their concerns, the seminar will relate and address the question of comparative study itself, its possibilities, its limits, and its perils.

Hampshire College students wishing to participate in this seminar should contact Robert Mesinger, 6 Warner House, #560.

*Dennis Hudson is Associate Professor of Religion at Smith College.

HA 213 EFFORT/SHAPE: LANGUAGE OF MOVEMENT AND OBSERVATION

Francis R. McCellan

This course will be based on Rudolph Laban's research in movement analysis, Effort/Shape:

"Movement is a reciprocal link between man's mental, spiritual, and physical life. . . (it) is more than a component of the chain that links man's inner activity and the world around him, for it is the medium through which he actualizes his responses. It is through the movement of his body and objects that man refines and expands his knowledge of the world. . . Thus the study of movement is essentially concerned with a person in relation to the world and the people around him." —Thornton on Laban

Effort/Shape analysis:

Is a technique for describing, measuring, and classifying human movement. . . describes patterns of movement which are constant for an individual and which distinguish him/her from others; . . delineates a behavioral dimension related to neurophysiological and psychological processes.

The work in this course will allow students to begin to work with the elements of movement analysis, observation, and notation. In addition tools of movement analysis, observation, and notation. In addition

to becoming familiar with basic Effort/Shape parameters of movement, efforts and effort states, students will be able to discover and examine their personal movement preferences with the potential for expanding their own repertoire and understanding how their movement serves them (alone and with others).

The course will hopefully bring together students from varied disciplines. We will combine theoretical research and experiential work with the application of this knowledge (during the last month) in an area of relevance (for example, movement in education, non-verbal communication, movement therapy) to the students participating in this course.

Throughout the term, readings and observation projects will be assigned.

The class will meet twice weekly for two-hour sessions. Limited to 15 students; discussion with the instructor is suggested.

HA 220 FILM/PHOTOGRAPHY STUDIES: INDIVIDUAL PROBLEMS IN FILM MAKING, PHOTOGRAPHY, AND RELATED MEDIA

Jerry Liebling

This course is open to film and photography concentrators in Divisions II and III only. Differences in work or participation to be expected between divisions will be discussed with the instructor at the beginning of the term.

The class will attempt to integrate the procedural and formal concentration requirements of the College with the creative work produced by each student. It will offer form for meaningful criticism, exchange, and exposure to each other. In addition, various specific kinds of experiences will be offered: field trips to museums, galleries, and other environments; a guest lecture and workshop series; and encounters with student concentrators, teachers, and professionals who are in the other visual arts or related endeavors.

Each student's concentration/contract must be written prior to enrollment. Enrollment is limited to Division II and III concentrators whose contracts have been filed. All others must have permission of the instructor.

There will be a lab fee of \$15.00. The class will meet once a week for five hours.

HA 221 THE INTELLECTUAL AND SOCIAL HISTORY OF SPANISH AMERICA

Robert Márquez

This course aims to explore the mutually influencing effect of culture and ideology, politics, and economics, on the ethos and history of Spanish America since independence, focusing on Chile, Peru, and Argentina as examples of general trends throughout the area.

A reading knowledge of Spanish will be helpful but is not required. The format of the class will depend on the size of enrollment.

The class will meet twice weekly for 14-hour sessions. Enrollment is open.

HA 225 PHOTOGRAPHY WORKSHOP II

William Arnold

A workshop to help students continue to develop their creative potential and extend the scope of their conceptions in dealing with photography as personal confrontation, aesthetic impressions, and social awareness.

Through lectures, field work, and seminars, students will attempt to integrate their own humanistic concerns with a heightened aesthetic sensitivity through the study of a wide variety of photographic experiences and the creation of personal images; the students can share a concern for the possibility of expression and the positive influence photography can have upon the aesthetic and social environment.

This course is for students who have completed photography, film, or TV classes in Basic Studies or their equivalent—or by permission of the instructor.

There will be a lab fee of \$15.00. The class will meet once a week for four hours. Enrollment is limited to 12 students.

HA 226 TIME-SPACE LABORATORY

Arthur Hoemer

This course is designed to give the student an understanding of the conceptualizing processes involved in making contemporary sculptural forms. A variety of experiences aimed at heightening the awareness and perception of time and space as potential subject matter will be presented. Emphasis will be placed on innovation and invention.

Students will be expected to supply their own art materials, initiative, imagination, and perseverance. Enrollment will be limited to 16, and instructor selection will be made at the first class meeting.

The class will meet once a week for a three-hour session.

HA 228 THEOLOGY

Raymond Kenyon Bradt

The endeavor of this course is to be fourfold. It is, firstly, to effect an introduction into the domain of theological discourse through a study of a select number of texts from *Permenides*, *On Truth*, *Heraclitus' Fragments*, *Plato's Republic and Sophist*, *Aristotle's Metaphysics*, *Plotinus' The Enneads*, *Proclus' The Elements of Theology*, *Dionysius the Areopagite's The Divine Names*, *The Mystical Theology*, *Augustine's De Trinitate*, *John Scotus Eriugena's Periphyseon*, *Anselm's Monologium and Proslogium*, *Thomas Aquinas' Summa*, *Duns Scotus' Ordinatio*, *Cusanus' Of Learned Ignorance*, *Boethius' Theophrastus*, *Leibniz's Monadology*, and *The Principles of Nature and Grace Based on Reason*, *Spinoza's Ethics*, *Kant's Critique of Pure Reason*, *Hegel's Phenomenology of Spirit*, and *Science of Logic*, *Tillich's Systematic Theology*, and *Balthus Church Dogmatics*.

The primary matters of consideration in this study are to be those of the theological method and of the being and the nature of God, the initiative, imagination, and perseverance. Enrollment will be limited to 16, and instructor selection will be made at the first class meeting.

The course is, thirdly, both in its own terms and in those of its readings, to effect a theological determination of the order of being. Then, fourthly, it is to consider the nature of the relationship between the human and the divine orders of being. This consideration will include an examination of the nature of faith and of the spiritual life through a reading of a selection of texts from Augustine, Eckhart, Luther, John of the Cross, Kierkegaard, and Weil, and a number of literary texts from Sophocles, Dante, Keats, Dostoevski, Hopkins, Kafka, Unet, and Claudel.

The course is, then, to bear into its conception the nature of God and the nature of humanity, to engage in the relationship to the divine condition. Given the extensive plan of the course, its duration will be the full academic year: the first term for the first two sections and the second term for the second two sections of the material of its consideration. Students will, however, be permitted to take either term alone with instructor permission.

The class will meet once a week for three hours. Enrollment is open.

HA 231 POETRY WRITING WORKSHOP

Barry Goldensohn (Section B)

This course has a double commitment—to both writing and criticism. In practice this means that workshop members have as profound a commitment to reading one another's work as to their own. The goal of this is to develop a self-critical attitude toward one's own writing since we are notorious for seeing faults and occasionally strengths in others before we see them in ourselves. We learn indirectly, but we do learn.

Poems will appear on worksheets that will be available a few days before each class. Work is due each week. Readings will be assigned. A critical essay on a subject on the student's choice is required.

The class will meet twice a week for 14-hour sessions. Enrollment is limited to 15 and instructor approval is required. Students wishing to enroll should submit a manuscript to the instructor during the course interview period.

HA 232 GROUP INDEPENDENT STUDY IN ELECTRONIC MUSIC COMPOSITION

Randall McCellan

This course is intended as meeting time for those students who are already qualified users of the electronic music studio and who are actively involved in studio composition. It is a time when we share our work with each other as well as our problems and frustrations, and to celebrate the completion of each new piece.

All students working in the Electronic Music Studio who are not enrolled in the Seminar in Electronic Music (HA 270) should enroll in this Group Independent Study.

We will meet every second Friday afternoon in the electronic music studio for 24 hours. Enrollment by permission of the instructor.

HA 236 AMERICAN LITERARY REALISM: MARK TWAIN, HENRY JAMES, STEPHEN CRANE, THEODORE DREISER

Richard C. Lyon

Following the Civil War, writers of fiction in the United States mounted a rebellion against the sentimental, proprieties, and optimism of genteel literature. The Realists sought not only to capture in their works the look and feel, the sounds and atmosphere of a new and more complex modern vision. It is a time when we share our work with each other as well as our problems and frustrations, and to celebrate the completion of each new piece.

We will read several works of short fiction and novels by each of these writers, noting the different ways in which each of them reckons with the public and private crises of their lives and their times.

The class will meet three times a week for 1-hour sessions. Enrollment is open.

HA 237 D. H. LAWRENCE AND THE NOVEL

Clay Hubbs and Robert Neill*

One history of the English novel in the nineteenth and early twentieth centuries is the history of the decline in the authority of a rational and social vision of the world and the rise of a new and more complex modern vision. This course explores the role in that history played by D. H. Lawrence, one of the most ambitious and most understood of the major writers attempting to make the modern novel.

We will begin with a preliminary effort to define the classical English novel of the nineteenth century and a consideration of the nature of its earliest challenges—English and American—in particular, those Lawrence saw as his predecessors. In the body of the course we will examine the modern novel as Lawrence writes of it and as he defines it in his critical essays. Among our chief concerns will be how Lawrence attempts to develop a mode of fiction that can express both a more complex view of the relationship between men and women and the complex of an equally complex social and moral criticism.

The course will consist of lectures and discussions (about half and half). There will be a series of short critical papers in which students will be asked to explore various aspects of how the novels work.

Reading list: Jane Austen, *Persuasion*; Melville, *Typee*; Emily Brontë, *Wuthering Heights*; Thomas Hardy, *Pass of Calverley*; D. H. Lawrence, *Sons and Lovers*; Theodor Dreiser, *Under the Red Wheelbarrow*; Henry James, *The Bostonians*; selected short fiction, selected literary and social criticism.

Students are encouraged to prepare for the course by reading nineteenth-century English and American fiction. Suggested summer reading list: Poe, "Ligeia"; and "The Fall of the House of Usher"; Hawthorne, *The Scarlet Letter*; *Bleakwater*; Melville, *Moby Dick*; Dickens, *Great Expectations*; *Uncle Tom's Cabin*; *Vanity Fair*; George Eliot, *Middlemarch*.

The course is open to Division II students. Division I students must have the prior permission of the instructors. Differences in work or participation to be expected between divisions will be discussed with the instructor at the beginning of the term.

*Robert Neill is Grants Coordinator in the Development Office and holds an M.A. in English and History from Vanderbilt University.

HA 241 MYTH: AN INTERDISCIPLINARY APPROACH

Joanna Hubbs and Clay Hubbs

"A whole volume could be written on the myths of modern man, on the mythologies camouflaged in the plays he enjoys, the books he reads. . . Profane man is the descendant of *homo religiosus* and he cannot wipe out his own history—that is, the behavior of his ancestors that has made him what he is today. . . This is religious ancestors that has made him what he is today. . . This is the more true because the great part of his existence is fed by the impulse that came to him from the depths of his being, from the zone that has been called the 'unconscious.' A purely rational man is an abstraction; he is never found in real life." —Hiroes Eliade, *The Sacred and the Profane*

Part of our purpose in this course will be to study the myths of modern non-religious man, our myths (including the myth of our ancestors—myths of creation and fertility, of quest and initiation, of the relations between man and woman and generation. For the most part the ancient myths we single out for study had their origins in Greece, the Near East and Asia. We will pay close attention to the myths themselves. At the same time, we shall explore the range of methods which modern scholars—anthropologists, psychologists, historians, philosophers—and artists have proposed in order to understand and use them.

Readings will include Frazer, Malinowski, Levi-Strauss, Freud, Jung, Campbell, Eliade, Cassirer, Frye, Whitlwright, as well as Lawrence, Mann, and other novelists and poets.

The class will meet twice a week for two-hour sessions for lectures, discussions, and films. There will also be guest lectures by five-college anthropologists.

Enrollment is open.

HA 264 THE NATURE OF HISTORICAL KNOWLEDGE
(LC 265)
Richard Lyon

See Language and Communication course description.

HA 248 INTERMEDIATE SCENE STUDY
Josephine Abady

Intermediate scene study will deal primarily with techniques used to create a complete character. The emphasis of the course will be characterization. We will examine how the author's, director's, and actor's visions of the character can be assimilated into the performance. We will study how an actor makes choices that lead to the creation of a believable on-stage life. Character studies and scene work will be taken from modern drama (past Chekhov).

The class will meet twice weekly for two-hour sessions. Enrollment is by instructor permission.

HA 230 SACRED AND PROFANE LOVE IN ENGLISH POETRY
Francis D. Smith

In the work of certain poets writing in English, there has been a constant tension between eros and agape—between love and spiritual love. We shall read closely the work of several poets to see what this recurrence and the changing forms of its expression might mean in a cultural context. Donne, Crashaw, Hopkins, Thomas and Eliot will be the principal poets studied. A short paper on one of these major writers will be required and another on a modern poet in the tradition, chosen by the student.

Enrollment is limited to 20.

HA 251 THE NEW YORK FILM FESTIVAL
Thomas Joslin*

The New York Film Festival is one of the major film events in the United States. This course will consist of a small number of students journeying to New York for the full two weeks of the festival (September 22-October 8). The class, as a group, will live together and talk, eat, and sleep film. Arrangements have been made with the Festival to guarantee seating at all screenings. Additionally, there will be access to press screenings and press conferences as well as some meetings with visiting filmmakers as they can be arranged. The object of the course will be to expose the student to a massive amount of contemporary film and, at the same time, through discussion and interaction with other students, develop a critical and analytical perspective from which to approach these films. The realities and politics of festival running will also be topic for discussion. Following the festival, each student will be required to write an in-depth essay on some aspect of the festival which interested him or her.

Entrance into the course will be limited to six students who will be selected by the instructor after interviews. Criteria for selection will include knowledge of film history and the contemporary film scene, demonstrated critical ability (a paper, published film reviews, etc.), and the ability to attend the complete festival without dropping the students' other first semester academic commitments. Registration will take place late in the spring so as to provide proper lead time for students to arrange their fall affairs.

There will be a lab fee, as yet undetermined but probably between \$35 and \$65. This fee will include housing but not food.

*Funding appointment.

HA 254 ENVIRONMENTAL DESIGN STUDIO
Mortimer Jucker and Earl Pace

The environmental design studio will provide an opportunity for more advanced research, investigation and design for students with a serious interest in architectural planning and conceptual design. Studio format. To be determined, could include:

- (1) Environmental design studio - design experimentation and building type studies; (2) design analysis and evaluation; (3) seminars related to design theory, history, the literature of design, or the role of the designer in society.

This course will presume certain background knowledge; therefore, enrollment will be by permission of instructors.

HA 256 SENSE AND SPIRIT
Robert Meagher

Rivers, we know, often flow deeply under or into the earth, out of sight and lost to our ears and touch. And yet we dig most anywhere and feel the moisture of rivers that flow and overflow beneath our every step. Then, all of a sudden, a river, hidden underground, springs from a crack in the soil or rock and we stand again in that flux where we know we stand each time only once. We have here an image of the sensitivity of spirit and of the spirituality of sense. If we trace the paths and movements of spirit to their source, we follow them into the sensual; and if we attend to the leadings of our senses, we are gestured and lifted into the body of spirit. Spirit and sense, sacred and profane, mind and matter are both many and one, yet sharing a common life. Each sense ascends to spirit along a path of its own and we shall explore and share such ascents with our own native artistry, the painter, the musician, the dancer in each of us, to serve as our guides.

This class will involve both a seminar and a workshop, each meeting as a rule once each week. Seminar readings will include: Jones, *The Phenomenon of Life*; Kandinsky, *Concerning the Spiritual in Art*; and Zuckerkandl, *Sound and Symbol*. The workshop will engage us in our own experiments with sensory and artistic experience. The exact scope and focus of these experiments will depend largely on the particular talents and interests of the class which forms. The distinction between seminar and workshop corresponds to the concern of this class to be both experiential and reflective, both experimental and critical.

Enrollment is open. The class will meet twice weekly for 1½-hour sessions.

HA 270 SEMINAR IN ELECTRONIC MUSIC, PART I: BASIC STUDIES
Randall McClellan, Bronson Gaddard*, John Petersen*

This two-semester course is intended to introduce students to the process of electronic composition in general and to the Hampshire Electronic Music Studio in particular. During the fall term, we will concentrate on the history of electronic music, basic principles of sound, and the synthesis of sound. During the spring term we will concentrate on the synthesis of sound, the production of electronic music, and the use of electronic music in composition. The class will culminate in individual compositional projects in electronic media.

Although previous experience in more traditional forms of composition is helpful, it is by no means a prerequisite. Students in the course will, however, be expected to devote a considerable amount of time both in the studio to actual analysis of electronic music and in readings pertaining to aesthetics and compositional process.

The class will meet twice weekly for 1½-hour sessions. Enrollment is limited to 8.

*Bronson Gaddard and John Petersen are Hampshire College students.

HA 237 NITTY-GRITTY DRAWING
Roy Superior

Have you reached a level of commitment that predisposes no difficulty in working hard and sustaining your efforts and interests?

Do you desire to make drawings that deal with issues involving the representation of actual objects?

Do you wish to create figurative images that occupy credible spaces?

If yes, answers to these questions will serve to further your aims AND

if you have either previous drawing experience, reasonable ability or a red-hot portfolio, or perhaps an insatiable desire to draw like crazy, then we can get right down to an intensive exploration of drawing as related to the world around us.

This class will be concerned with aspects of drawing the figure, natural organic forms, man-made and mechanical structures, landscape, interior environment, with emphasis on an expressive and interpretive investigation. We will meet once a week for three hours with class assignments, drawing on location, grueling three hours with class assignments, drawing on location, studies with the model (human and animal), inspirational related slide lectures, group critiques. Outside assignments will challenge the imagination and ability, technical problems will be dispensed but not belabored, and we will work as if our lives depended upon it—as indeed they might.

Class limited to 15 to be selected by the instructor on either portfolio or prior to the class or at the first meeting. Final course evaluations will be based on portfolio review and magnitude of effort. The School will supply the models, animals, and nostalgic memorabilia, but the students will supply their own supplies and materials.

HA 258 PLATO AND AUGUSTINE
Robert Meagher

The path of this seminar will lead us through several works of each philosopher, works which are seminal not only for the development of their own thought but also for the development of Western thought. Our focus will be upon careful attention to central texts and central ideas, dwelling therein until their power and their truth appear.

This seminar is limited to 16 students, by lottery, and will meet twice each week for two-hour sessions.

HA 259 METAPHYSICS I: THE ANCIENT PERIOD
Raymond Kenyon Bradt

This course is to constitute an examination of the origins and development of first philosophy or metaphysics in the ancient Greek period of its thought. After an introductory study of early Greek philosophy, the course will move on directly to an intensive study of Plato's *Republic* (Books V-VII), *Theaetetus*, *Parmenides*, and *Sophist*, and Aristotle's *Metaphysics*. The study will attend primarily to the various determinations of being, of becoming, and of thought effected in these works. The course to itself will be complemented by two other courses: "Theology," to be offered concurrently, and "Metaphysics II: The Modern Period," to be offered in the Spring Term of 1979.

The class will meet once a week for three hours. Enrollment is open.

HA 280 STUDIO ART CRITIQUE
Joan Murray

This course will be divided into two components. One 2½-hour meeting per week will be devoted to criticism of student work. A second weekly meeting, 1½ hours in length, will involve a rotation of presentations by the students and the instructor as well as active participation in group projects.

Enrollment is limited to 15 students.

HA 277 ELIZABETHAN, JACOBIN AND AFTER...
L. Brown Kennedy

This course will center on a close reading of drama written in England during the sixteenth and seventeenth centuries: *Tamworth* (Marlowe), *The Night of the Burning Pestle* (Marlowe), *Hamlet*, *Henry IV* and *Antony and Cleopatra* (Shakespeare), *The Merry Wives of Windsor* (Ford), *The Duchess of Malfi* (Webster), *Samson Agonistes* (Milton), *All for Love* (Dryden).

By our reading of these plays posits a connection between a society—its social structure, its political and intellectual concerns—and the literature which it produces; and I propose, in a series of lectures and discussions, to move through the language and structure of the texts into an exploration of this connection.

To give an example of one of several problems I would like for us to deal with: my work has returned me repeatedly to Marvell's summation of the effort of the English Civil War, "...men may spare their pains where nature is at work and the world will not go the faster for our driving." The group of plays which we will be reading presented heroes and heroines to audiences who saw no political experience ranged from the glories of Elizabeth's victory over the Armada through the downfall of Cromwell's Commonwealth; and, perhaps as a consequence, they offer a range of approaches to the question—what chance do individuals have of making of themselves what they desire? The men and women who are the central characters of these plays share, as their own language reveals, the search for an authentic mode of speech or of action, but that mode must very drastically with the reality of the situations in which they have to live, and what are brave words in one period become banal in another.

Though this will be a lecture-discussion course, there will be opportunity for those students who are interested to do directed research-seminar work on specific aspects of the historical background of the plays. Each person taking the course will be asked to contribute two papers.

The class will be limited to thirty students and will meet twice weekly for 1-3/4 hours.

HA 287 THE MUSICAL HERITAGE OF THE WEST
Randall McClellan

This course is designed as an introduction to the many forms, styles, and genres which have contributed to the immense richness and diversity of the Western "classical" tradition of music. We will begin by examining aspects of the aesthetics of music, the role of composer, performer, and listener, and the dynamics of stylistic change. We shall then examine the interaction of the musical materials of melody, rhythm, tonality, texture, and form.

The greatest portion of the course, however, will be devoted to listening to and discussing some of the principal forms of Western music, such as the symphony, the concerto, and chamber music which have dominated Western music during the last three hundred years. As such, we will devote our examination primarily to the baroque, classical, romantic, and modern periods.

Our discussions will be primarily non-technical, and no previous musical training is required. Non-musicians are especially welcome. Although this is a Division II course, students in Divisions I and III may enroll. Differences in work or participation to be expected between divisions will be discussed with the instructor at the beginning of the term.

The class will meet twice weekly for two-hour sessions. Enrollment is open.

HA 299 U. S. HISTORY: FIRST HALF OF THE 19TH CENTURY
Van R. Halsey

The bustling era in U.S. history from the evacuation of the British troops in 1783 to the boom times of the 1840's has produced a bewildering variety of historical interpretations. Why? Why have scholars felt the need to continually revise and reinterpret this period of our past? What makes these years so difficult to understand, so ripe for on-going argument about causes, consequences, and contradictions?

Is an understanding of the politics and economics of slavery the key, as some suggest? Did the adoption of Hamilton's financial plan in 1795 set an irrevocable course for the dominant forces of capitalism and industrialism? Or was the rise of the "free man" the key? Was Andrew Jackson's name so often used as a synonym for the development of Eastern canals to steamboats and period? From the cotton gin to the balloon frame house, and mass produced axes and clocks, what part in the story must be assigned to technological developments and the social implications of same?

These themes (some in more depth than others) as expressed in both historical and imaginative literature of the period will be examined in this course. An annotated bibliography will be provided. A few books will be required reading, and one or two papers will be expected. The class will meet twice weekly for 1½-hour meetings, but time will be arranged for individual projects and tutorials. Enrollment is open.

SCHOOL OF LANGUAGE AND COMMUNICATION CURRICULUM STATEMENT

The concept of a School of Language and Communication is unique to Hampshire College. The School represents a synthesis of disciplines concerned with the forms and nature of symbolic communication. These are some of the most vital areas of study in current intellectual life, and their emerging interconnections are among the most important interdisciplinary developments in this century; only at Hampshire are they grouped together and taught as a central part of a liberal arts education. The School's curriculum is wide-ranging. The courses described here make significant contact with most of the major questions in intellectual life and with most students' interests.

Areas of Study

Cognitive studies. The nature of the human mind depends on its capacity to receive, store, transform, and transmit symbolic forms, or information. The cognitive sciences are devoted to the study of these fundamental properties of mind. Linguistics and cognitive psychology investigate human language, thought, perception, and memory. Computer science and mathematical logic provide a general theory of symbolic structures and processes that is used in linguistics and psychology and that makes possible the construction of machines with mental powers, called computers. Many of the classic questions in philosophy fall in the domain of mind, for example, those concerned with the nature of knowledge, of meaning, of rational thought, and with the relationship between mind and brain. The cognitive sciences also have important applications in education. The School offers an integrated set of courses in cognitive studies that includes linguistics, psychology, computer science, mathematics, philosophy, and education. This interdisciplinary area offers one of the major perspectives on human nature.

Language, culture, and society. Symbolic forms are the medium of communication as well as of mind. The use of language, our richest instrument of communication, reflects, selects, and creates social structures and cultural forms. The issues that are addressed in the School's courses range from the role of social relationships in two-person conversation to the way in which literary artists exploit the structure of language to create esthetic effects, to the interplay between social structure and language use in societies that are bilingual or multilingual. In LAC such phenomena are studied using theories of the fundamental and universal aspects of language structure and use. Linguistics is the central discipline in this area of study, and it is combined with parts of anthropology, sociology, and psychology.

Mass communications. Communication has been fundamentally altered by the invention of instruments for the mass distribution of pictorial and linguistic forms and their subsequent control and exploitation by certain social institutions. The influence of this new force on advanced societies is the subject of the School's courses on mass communications theory and research. Methods are drawn from the social sciences, including sociology, psychology, and economics. The School also offers applied courses in journalism and television production.

Division I Courses

Division I courses in the School are offered as introductions to LAC and to study. They are often multidisciplinary in nature and are designed to provide a broad background in the field.

The School offers a full range of Division II courses every year, which allows the students whose concentrations involve LAC to do most or all of their work on campus. These courses are attractive investigations into one or more of the disciplines within the School. Many of them require no prior knowledge of the area covered, although some do. The individual course descriptions state any background needed by the student. Division II students who can handle the material are welcome in all Division II courses. Although work growing out of the course might well qualify for Division I examination, no time in Division II courses is specifically devoted to the initiation of Division I examinations.

George Orwell. Homage to Catalonia

George Orwell, Homage to Catalonia
Ernest Hemingway, For Whom the Bell Tolls
Vietnam War:
Francis Fitzgerald, Fire in the Lake
Bernard J. Fall, Nell in a Very Small Place
Michael Herr, Dispatches
Robert J. Lifton, Home from the War
Philip J. Caputo, A Rumor of War
Robert Stone, Dog Soldiers
Robin Moore, The Green Berets
Tim O'Brien, Going After Cacciato

The class will meet twice a week for 1 1/2 hours each time
Enrollment limit: 40

LC 171 LANGUAGE, CULTURE, AND SOCIETY

Judy Kegl

Language, culture, and society are inextricably bound up with one another. The study of language in its cultural and social context can give us insight into human beings as social and cultural beings, as well as enrich our view of human language and the relationship between language and mind. What are the relationships between language, thought, and culture? Does one determine the others, or are the relationships more intricate and complex? What are the boundaries between what we know about our language and what we know about the world and our culture? We can gain insight into these general questions by looking at the nature of language itself, at the roles it plays in social organization, as myth, folk taxonomy, kinship organization, and so forth.

When we get to the level of social structure within a particular culture we find, interestingly, that language both reflects social organization and gives us a way to study it. Different groups within a society—inclusive of the various ethnic groups—have different attitudes toward their identity partly through quite subtle and (for the most part) unconscious manipulation of language variation. But at the same time these disparate groups can be brought to some sort of common identity through the use of the differences. There are, for example, many distinct varieties of English spoken in New York City, yet it can be shown that speakers of all these distinct varieties can be brought to a common identity as a whole. How does this happen? We will look at various dialects of English, some ethnically based, some class-based, and discuss their relationship to the social structure of the community which they inhabit (important implications for education).

We will also look into the intriguing connection between what children tend to do in learning a language, what we tend to find in nonstandard dialects, the ways in which languages tend to change over time, and the phenomena that are found in pidgins and creoles. In each of these areas we keep finding strikingly similar phenomena. Why should this be? Current linguistic theory suggests that the answer in part lies in those aspects of human language which are universal, part of the biological make-up of human beings. By probing the nature of our language capacities we may find out the most important facts that makes us all--regardless of culture, regardless of bewildering apparent differences--fundamentally one "community," the human species.

In the course we will be employing the methods of, and evaluating the assumptions and claims of, general linguistics (the study of language), as well as social and anthropological linguistics.

The class will meet twice a week for lectures, and once a week students will meet in small groups for discussion of readings, lectures, and student work.

Enrollment limit: 16

HOBBS AND FREUD: ON THE NATURE OF HUMAN NATURE

David Israel

Man, we are told, is a--perhaps the--rational animal; he/she is also a social animal. What, if anything, has the one to do with the other?

It has often been assumed that men's nature as a rational animal imposes stringent, and fixed, constraints on the structure of any humanly possible social orders, and that it does this in two ways. First, our animality—together with our capacity to calculate (and reason)—makes necessary (and even inevitable) institutionalized prohibitions and sanctions against those actions which are inimical to the good of the community. Second, no social order is viable if it makes emotional demands on its members which they are by nature unable to satisfy, except at great psychic cost (or only under duress, or by force). If it is true that to satisfy the biologically given emotional needs of its members,

This course will focus on the above issues, not by way of summarizing, but through a careful investigation of the views of Hobbes and Freud and, if time permits, a look at a current version of a strong biological-determinist view: E. O. Wilson's Social Biology. In studying Hobbes and Freud, though, we will find necessary to stray into history, political theory, game theory and the theory of rational choice, and biology. You may find even further fields.

Primary texts: Hobbes, The Leviathan
Freud, Beyond the Pleasure Principle
Ego and Id
Civilization and Its Discontents
"Project for a Scientific Psychology"

David Kerr and David Roberts

"Madrid, April 24--The window of the hotel is open and, as you lie in bed, you hear the firing in the front line seventeen blocks away. There is rifle fire all night long. The rifles go 'tacrong, carong, craang, tacrong' and then a machine gun opens up. It has a s.bigger caliber and is much louder--'rong,

cars, big, long, long. Ernest Hemingway
New York Times, April 25, 1937
"If we can't shoot these people, what the fuck are we doing

U.S. soldier in Vietnam quoted in
Dispatches by Michael Herr

"At its best history may give the fullest view and afford the

deepest comprehension of the relatively immediate forms of journalism. But it is often in the personal impact of man's most nightmarish and fiction that the personal impact of man's most nightmarish creation can best be rendered. By focusing on two twentieth century wars, both of which provoked an international sense of outrage, we hope to uncover some of the strengths and limitations of each medium for rendering the complexity of human actions. The course thus has a double aim: to come to a deeper (if vicarious) understanding of the nature of the twentieth century Civil War and the Vietnam War; and to scrutinise how journalism and fiction as modes of inquiry contribute to that understanding.

The course has no specific prerequisites and is aimed at Division I students who do not necessarily have a strong background in the history of either war. But we expect students to read and think critically. The course is designed to be a challenge, and we expect students to engage with it. The intention is not to settle a (potentially specious) debate as to which form of writing better accommodates itself to war, nor is it more than marginally to claim that the Vietnam War is the best measure of either conflict or discrimination. The book about Vietnam may not yet have been written, but the book about Vietnam has. Rather we hope to set journalism and fiction side by side (in line with the teachers' respective areas of competence) to make double focus easier. The intention is to use the Vietnam War to make the point that war is a life in depth.

Writing assignments: two short critical papers and one longer research paper.

Partial reading list:

Introductory essay: Noam Chomsky, "Objectivity and Liberal Scholarship."

Spanish Civil War:

Gerald Brenan, The Spanish Labyrinth

Burnett Bolloten, The Grand Camouflage: The Communist Conspiracy in the Spanish Civil War

John Barkans, The Spanish Cockpit

10. *Journal of the American Medical Association*, 1997; 277: 1033-1036.

linguistics: two or more languages are used in the same context of interesting of social life. This is the case of bilingualism, which is the subject of this book. But for linguists, sociolinguists, psychologists, and quite a few other disciplines, the study of language is not limited to the study of languages. We will consider, for example, how we use language, how language affects our thought, how culture affects language, how a variety of linguistic and linguistic factors determine which language a bilingual will choose to use. Special attention will be given to the relationship between language and thought. We will look back to "code switching," a term used by linguists, sometimes within the same conversation or even the same sentence. Language attitudes and language use will also enter the discussion. Language attitudes are the attitudes that one language has towards another, and, conversely, the attitudes that one language has towards itself. This affects both language choice and self-image in bilingual individuals. We will also be concerned with the relationship between language and intelligence: does it enhance or hinder? What is the relationship between language and intelligence? Is each language processed independently? Or are the two languages "translated" from one to the other? Or are the two languages processed together? We will also consider the role of language in the cognitive system. Finally, we will discuss the controversy surrounding bilingual education, from the sociolinguistic and psychological points of view.

The focus of the course will often be on Spanish-English bilingualism in the United States; but we will also consider the role of native American languages, and look at a number of relevant international cases, including Quebec, Paraguay, Belgium, the U.S.S.R. and Nigeria.

Classes will generally alternate between lectures and discussions. A research paper is required for an evaluation (or grade). Readings will include: The Sociology of Language by J. Fishman, Language and Social Context by P. P. Giglioli, and Sociolinguistics by P. Trudgill.

The class will meet twice a week for 1 1/2 hours each session.
Enrollment limit: 15

The class will meet three times a week for 1 1/2 hours each time.

Enrollment limit: 20

LC 228 WORKSHOP IN CONVERSATION ANALYSIS

Janet Tallman

Our conversations are a source of much information about our inner states of consciousness and our outer patterns of behavior. Only recently has social theory begun to study conversations systematically. In this course I would like to examine several theoretical approaches to the study of conversations, and apply these theories to conversations we have taped and transcribed. We will use which theories best explain the conversations we have gathered, and we will begin to develop new theories about what we have discovered. We will also examine topics which have emerged in previous work in this course.

Some topics we will look at include: sex differences in speech; humor; laughter, art and play in conversation; sequencing; the child's acquisition of the social rules of speech; stumblings, pauses, hesitations, and Freudian slips; gossip as socialization; styles; silence as utterance. Some theorists we will read include: Sigmund, Schegloff, Jefferson, Sacks, Watzlawick et al., Freud, Schatz, Searle, Grice, and Tallman.

The emphasis of work will be on reading and tape analysis. In class we will stress discussion, and I will give a few lectures.

The possibility of developing a Division I examination from the course should be discussed with the instructor at the beginning of the term.

The class will meet twice a week for 1 1/2 hours each session.

Enrollment limit: 20

Five-College grades will not be given.

LC 240 CHILD LANGUAGE DEVELOPMENT

Deborah Knapp

"May the big bad wolf can't blow the house down?"

Benjamin, age 3

No one teaches little children the rules of grammar, and yet somehow they learn to talk. And to talk they must master an incredibly complex system for putting words together to convey meaning. From the time children say their first words at about a year of age, their language is not just a hodgepodge or a random assortment of adult phrases. Look at children of any age at all and you will find they have their own consistent set of rules, rules which are constantly changing as new ones are added and old ones are modified.

In this course we will read the research literature on language acquisition. On the one hand we will see how researchers have described what children know at different ages about syntax and semantics, and what order they have their own consistent set of rules, rules which are constantly changing as new ones are added and old ones are modified.

Early concepts. Why do children start talking about "mama" and "daddy," but not "trees" or "refrigerators"? How do concepts themselves differ from symbols, like words or images? Why might children call all men "daddy"?

Competition and language. When do children first start to communicate nonverbally? How do their interactions with the world and with people help them learn to speak? Are there structures of thought which are common to nonverbal thinking and to the rules of language?

Order of acquisition. Are there certain types of rules which tend to be learned before other types? How is the order of learning rules affected by the complexity of the rules themselves? How by the meaning that the rules express? Which devices are the same for many languages and which different?

Theories of language acquisition. What role does imitation play in language learning? What about "reinforcement"? Are some languages easier than others? What is the structure of some languages easier than others? What are the similarities and differences between learning language and learning a motor skill like tennis? What is the biological basis of language? Is the brain? In what sense can language be said to be "innate"?

Class meetings will be devoted to lectures and to discussion of readings. Several short papers will be required, in addition to a major research project which will involve recording the speech of at least one child. Some acquaintance with cognitive development and/or linguistics would be helpful, but it is not necessary.

The class will meet twice a week for 1 1/2 hours each time.

Enrollment limit: 20, to be determined by lottery at the first class.

LC 241 SMALL COMPUTER DESIGN

(NS 241)

Robert Tinker

Students will be a technical course which will enable beginning students to design and build small computer systems. Students, working in small groups, will actually build functioning microcomputers and program appropriate software.

The course will consist of twelve two-hour lectures, four laboratory design projects involving microcomputers, and weekly written design problems. Evaluation will be based on the problems and the four projects. The twelve lectures are described below:

1. **Overview:** Micro versus mini/small computer capabilities/the technology/architectural elements/bus structure/instruction set.
2. **Number systems and logic:** Binary, octal and hexadecimal arithmetic/elements of logic/gates, flip-flops, monostables and buffers/applications.
3. **TTL design:** TTL conventions/survey of available chips/applications to typical computer problems.
4. **Small computer architecture:** LSI families/CPU structure/timing considerations/bootstrapping/interrupts/available hardware.
5. **Software basics:** CPU functions/basic instruction sets/timing and polling algorithms.
6. **More software:** Addressing modes/interrupts/the stack/relocation/sample programs.
7. **Software support:** Monitors/operating systems/assemblers/editors/debuggers/linking loader/ROM burning.
8. **Interfaces:** Ports and latches/addressing/A/D conversion/interrupts/applications.
9. **Peripherals:** Bus standards/serial/USART's/DMA/priority arbitration/disk controller/TV graphics controller.
10. **Memory:** Addressing/organization/dynamic refreshing/design examples.
11. **Time sharing:** The need for relocation system hard-ware/operating modes/the operating system.
12. **System examples:** A minimal system/a computer for education/a time-shared minicomputer.

Students will learn the internal structure of five machines which will be available in the laboratory: 8080, Z-80, 6502, P-8, and the LSI-11. Four lab projects will be an integral part of the course: SSI design projects, interfacing problem, software problem (individual projects), microcomputer design (groups of up to four students).

The course will meet once a week for two hours.

Enrollment limit: 12

LC 242 THEORY OF KNOWLEDGE: CLASSICAL WRITINGS

Christopher Witherington

Our primary philosophical concerns in this course will have to do with human knowledge: its possibility, its nature, its varieties, its sources, its limits. We will also consider some issues in metaphysics traditionally closely linked with epistemological considerations (e.g. the problem of universals, the nature of the mental) and will give some attention to how philosophers have thought of epistemology itself and to what their accounts of knowledge have attempted to explain and illuminate.

We will proceed, after a few introductory sessions, by reading and discussing in chronological order several classics of Western philosophy. Most of the books will be read in their entirety. Important passages in which epistemological positions are set out and defended will be studied carefully. As a rule problems, positions, and types of argument will be addressed as they arise in connection with our readings. The lectures will aim primarily at providing critical explications of the positions and arguments presented in the readings. They will also be intended to provide useful background information about the philosophers and works being studied; some initial acquaintance with the positions of philosophers not being read, e.g. Locke and Aristotle; and an introduction to some of the issues and methods of contemporary epistemology.

This is intended as a first course in epistemology. It will involve very substantial commitments of time for reading and study. It is meant to provide people who are considering going further a solid foundation for later studies in a variety of areas: the philosophy of science, the history of modern and recent philosophy, philosophical psychology. It is also meant to give students not planning on more advanced work a solid, contained survey of the thought of some of the most important Western philosophers.

Readings: Bertrand Russell, *The Problems of Philosophy*; Plato, *Meno*, *Republic*, *Theaetetus*; Descartes, *Rules, Discourses, Meditations*; Hume, *Enquiry Concerning Human Understanding*; Kant, *Prolegomena to a Future Metaphysics*; Hegel, *Essential Writings* (Weiss, ed.); Peirce, "The Fixation of Belief," "Some Consequences of Four Inseparables," "Questions Concerning Certain Faculties Claimed for Man"; Moore, "Defense of Common Sense," "Proof of an External World"; Frege, "The Thought," excerpts from *The Foundations of Arithmetic*; Husserl, "Phenomenology," excerpts from *Paris Lectures*; Adam Morton, *A Guide through the Theory of Knowledge*.

Required for evaluation: midterm take-home examination, final paper, final examination.

Interested students should notify instructor by mid-July so that a sufficient number of books can be ordered.

The class will meet twice a week for two hours each session.

Enrollment limit: none

LC 245 THE NATURE OF HISTORICAL KNOWLEDGE

(HA 245)

Richard Lyon

The American historian Henry Adams once remarked that it would be an advantage to historians if they knew what they were doing. Many philosophers and historians have tried to make the writing of history a more conscious process by asking questions about the presuppositions of historians, about their habits of inference and judgment, and about their use of words. In this course we will consider the foundations of our knowledge of history: in particular the place of fact, law, and values in written accounts of the past. We will examine the language of historical narratives and the nature of historical explanation, especially the role of cause, reasons, and motives. We will look at the question of whether historical narratives can be objective or value-free, and the question of whether determinism is implied or is not implied by historical explanations.

Readings will be in Hans Meyerhoff's *The Philosophy of History in Our Time*, Morton White's *Foundations of Historical Knowledge*, and Isaiah Berlin's *Historical Inevitability*, among other texts. Writing assignments will be made, calling for application of theoretical questions to particular historical narratives.

The class will meet three times a week for one hour.

Enrollment limit: none

LC 250 FORMAL MODELS OF LEARNING AND INDUCTIVE INFERENCE

Robert Noll

Learning is a central problem in psychology; methods of inductive inference are of interest to philosophers of science. This course will look at a variety of formal models for learning and inductive inference that have been proposed by mathematicians, computer scientists, and linguists.

Researchers in the artificial intelligence community model the inference process by writing programs which infer general rules from specific examples. For example, a system developed several years ago infers a Lisp program on the basis of a single example of the program's input-output behavior.

Mathematicians have also proposed theories of inference. One of these models characterizes so-called "IQ-test" inferable sequences: that is, the theory explains why sequences like

2 4 8 16 32

are instances of (mechanically) obvious rules, while sequences like

86 9 2471 21 197368

are not.

Perhaps the central question of contemporary linguistics is explaining how children learn their native language, and linguists have proposed formal models of learning in the context of natural language acquisition.

Students should have some background in at least one of mathematics, computer science, linguistics, or philosophy, since after the class has seen examples of the models mentioned above, each student will be expected to do a substantial project.

The course will meet twice a week for 1 1/2 hours each session

Enrollment limit: 20

LC 251 PHILOSOPHY OF LANGUAGE: REFERENCE, MEANING, AND TRUTH

David Israel

People, and maybe other creatures, make noises and marks on paper, some of which are of all things—true (and some, alas, are false). This is a mind-boggling phenomenon when one thinks about it; and we shall. Those sequences of noises and/or marks are sentences and in order to be eligible for truth and/or falsity they must be meaningful; and further, to put it crudely, they must be about objects and events and states-of-affairs in the world—in extra-linguistic reality—and what they say about the world must in some way match up with, correspond to, reality. Sentences are complex entities; they have parts, and the order in which those parts stand is also significant. (Compare "John hit Mary" and "Mary hit John.") Must there be some special and especially interesting relationship between the structure of a sentence and the "parts" of reality it is about for a sentence to be true? What is it for a part of a sentence to refer to-to-be about—a part of the world in the first place? Do all the significant parts of a sentence refer to parts of reality? In the same way? What is the connection between what a sentence means and its truth or falsity?

In this course we shall examine some of these issues, and some others as well. We shall focus in on both the views of the great fathers of modern philosophy of language: Frege, Russell, and Wittgenstein, and those of leading contemporary theorists: Grice, Dummett, Kripke, Davidson.

Two papers, each about 10 pages, will be required.

The class will meet twice a week for 1 1/2 hours each session.

Enrollment limit: 12

FOREIGN LANGUAGES

LC 115 INTENSIVE ELEMENTARY SPANISH

Angel Nieto

This course is intended as a two-term sequence in the fundamentals of spoken and written Spanish. Listening and speaking will be stressed, especially in the first term. The text will be *Communication in Spanish*, a linguistically based approach to language learning. It provides a book with performance objective-type assignments to be done outside of class and a workbook for practice on grammar. Recorded tapes which accompany the text will also be available for use on your own.

Class will be used primarily to develop comprehension of the spoken language, pronunciation and oral skills through exercises not given in the text. Therefore, although required preparation time outside of class is not great, class attendance is important.

Meeting times: TBA

LC 130 INTENSIVE ELEMENTARY FRENCH

Raymond Pelletier

This course is designed for those students with little or no previous training and/or experience in French who want to develop basic language skills. Practice in the four skills of language learning (speaking, understanding, reading, and writing) will be equally emphasized in class presentations, and the text will last approximately one hour. The last half hour of the class will be organized in such a way as to allow the student to focus on a particular skill. Thus, exercises and drills may be used to develop the student's ability to speak and understand, in writing by those wanting to learn to read and write, or both orally and in writing by those preferring to develop all four skills simultaneously.

Classes will meet one-and-one-half hours three times per week, and will be organized around written and oral (French language tapes) assignments.

SCHOOL OF NATURAL SCIENCE CURRICULUM STATEMENT

Below is a list of diverse lecture series, field and laboratory projects, and seminars, all loosely known as Natural Science courses. These courses come in a wide variety of forms—from large lectures taught by several faculty members, to small seminars with several students working on a specific problem. There are courses for students excited by science and ready to plunge into their subject, as well as courses for students needing to be persuaded that science has anything to offer them.

Students signing up for Natural Science courses should be especially clear about the distinction between Division I and Division II courses. Division I courses are intended to lead to Division I ideas, projects, and, eventually, to Division I examinations. Teachers will introduce you to the problems and examinations. Teachers will help you acquire the methodology of exploration in science. These courses are geared to questions of exploration in science. These courses are geared to questions of exploration in science. These courses are geared to questions of exploration in science. These courses are geared to questions of exploration in science.

Division II courses tend to be more traditional in nature. They are designed for concentrations or, in the old sense, for traditional disciplines neither do the courses. Division II is, and should be, a response to present students' needs through the creation of new courses. However, in these courses students are expected to work more independently, should expect to pursue the subject matter on their own and should expect to make up deficits in their knowledge on their own. It should be noted that many courses—physics, biology, calculus, chemistry, etc.—which are standard introductory science courses at many other colleges are all listed as Division II courses at Hampshire. These courses are taught by Division II students the courses here and are taught to give Division II students the tools they need for their work. As such, these courses are not necessarily well suited for introducing the structure and tactics of science as effectively as Division I courses, and do not so readily lead to Division I exams. Division I students with strong backgrounds may, with the instructor's permission, register for a Division II course. This should generally be with the understanding that the student is already prepared to do a Division I Natural Science exam and will complete it during the semester.

Students who arrive at Hampshire with a strong science background and comprehension are strongly encouraged to begin their own right away; all others are equally strongly encouraged to take one or more Natural Science courses to develop an exam: this being the most efficient way—for both faculty and student—to ensure that the student has the skills necessary for a successful Division I exam. It is of course experience that most entering students do not have the necessary writing and scientific skills which Division I courses are designed to develop. For this reason most faculty are reluctant and may even refuse to undertake a Division I exam with a student who has done no Natural Science course work or otherwise demonstrated the kind of scientific maturity necessary.

The School of Natural Science tries to gear its courses toward the needs and interests of the students, particularly at the Division II level. If you do not find a course you are interested in taking, or feel that we have overlooked something, please take your ideas to the School's Curriculum Committee. (Raymond Coppinger, Chair).

Five College students are welcome in our courses. We would like to encourage those Five College students who have trouble with science or have mental blocks against science to give a Division I course a try. We will try to help Five College students adapt our system to their individual institutions.

SCHOOL OF NATURAL SCIENCE

DIVISION I:

SPACE SCIENCE: TOPICS OF CURRENT ASTRO- NOMICAL RESEARCH ASTYC 31

BLACK HOLES AND THE UNIVERSE NS 103

THE PHOTOGRAPHIC PROCESS NS 111

ASTRONOMICAL OBSERVING/VISUAL AND PHOTOGRAPHIC NS 165 (mini)

PHYSICS AT HAMPSHIRE (general description)

PHYSICS OF WAVES NS 118

UNDERSTANDING RELATIVITY NS 173

DO WE HAVE TO DIE?...MOLECULAR BIOLOGY OF DEATH AND DYING NS 102 (mini)

TOPICS IN HUMAN BIOLOGY, PHYSIOLOGY, AND MEDICINE NS 121

MICROBIOLOGY NS 124

BEANBAG GENETICS NS 126

TOPICS IN CANCER RESEARCH NS 175

BIOLOGY AND SEXUAL IDENTITY NS 178 (mini)

"I FEEL BUT WHERE AM I?...SCIENCE AND THE EMOTIONS NS 196

PAT, DIET AND WEIGHT LOSS NS 196

GRASS, SHEEP AND DOGS NS 129

NATURAL HISTORY OF THE CONNECTICUT RIVER VALLEY NS 140

TOPICS IN AGRICULTURE NS 145

ALTERNATIVE ENERGY FUTURES FOR WESTERN MASSACHUSETTS NS 167

ENERGY AND THE ENVIRONMENT NS 171

ELMENTARY SCHOOL SCIENCE WORKSHOP NS 192

DIVISION II:

STARS ASTYC 21

ASTRONOMICAL OBSERVATION ASTYC 37

ASTROPHYSICS I: STELLAR STRUCTURE ASTYC 43

QUANTUM MECHANICS NS 283

GENERAL CHEMISTRY NS 201

ORGANIC CHEMISTRY NS 212

THE GENETICS OF EVOLUTION NS 228 (mini)

GRASS, SHEEP AND DOGS NS 129

"ECO-FEMINISM": AN ETHICS OF ECOLOGY AND FEMINISM NS 226

FACTORY IN THE FIELD NS 239 (SS 243)

TOPICS IN MARINE BIOLOGY NS 245

CALCULUS NS 260

MATH FOR SCIENTISTS AND SOCIAL SCIENTISTS NS 261 (SS 261)

MODERN ALGEBRA: PURE AND APPLIED NS 269

SMALL COMPUTER DESIGN NS 274 (LC 261)

DIVISION I:

SPACE SCIENCE: TOPICS OF CURRENT ASTRONOMICAL RESEARCH

William Irvine (at Smith)

We are living in an era unique in human history. The entire solar system is experiencing the first direct exploration by man. Each of the planets, and in fact each of the planets' moons, is gradually being revealed as a unique world both similar to and also vastly different from the earth. The course will describe our current knowledge of the planets and satellites, focusing on such questions as conditions on the surface of Venus, the nature of the Venus clouds, the possibility of extraterrestrial life, recent explorations of the planets Mars, and reconnaissance of the outer solar system. The emphasis will be placed on spacecraft investigations. Text: *Moons and Planets*, Hartman. Requirements: term paper and final exam. This is a Division I course.

Class will meet Tuesday and Thursday, time to be announced.

NS 103 BLACK HOLES AND THE UNIVERSE

Kurtiss and Courtney Gordon

Questions of the origin and structure of the universe have puzzled humanity for ages. Within the universe, nature performs experiments under extreme conditions which we can never hope to duplicate on earth—but which we can and may try to understand. From the smallest and densest black holes to the enormity of the universe itself, the theory of relativity finds application. A qualitative understanding of the theory is accessible to students with very little scientific background or facility with equations—what is required is a willingness to explore and to think rigorously.

Expected student input: short paper during first 6 weeks, major paper or other project during second half of term, report to class on the project during final two weeks. Text: *Black Holes, Quasars, and the Universe*, H. S. Shapiro.

Class meetings: 2 1/2 hour meetings per week for first 6 and last 2 weeks of the term, with intervening time to be spent on projects.

NS 111 THE PHOTOGRAPHIC PROCESS

Stanley Goldberg

This year The Photographic Process is composed of totally separate, independent modules, which will be offered independently. Students may enroll in any combination they desire. There are no prerequisites to any of them. Each module is limited to ten students.

A. Principles of Optics: Lens and Camera (5 sessions). The laws of reflection and refraction will be applied to understanding the nature of lens. The basic parameters of the lens and shutter system will be examined and we will make sense of such mysteries as f/stop, shutter time and exposure.

B. Photographic Emulsions (7 sessions). The chemical nature of photographic emulsions will be examined. We will then explore the chemistry of black and white development and use the exploration to classify the characteristics of various types of black and white film, to highlight the properties of a well exposed, well developed image and to discuss the various chemical tricks of the darkroom to enhance the defective image.

C. Sensitometry (6 sessions). We will examine the relationship between exposure, development and the density of the image. In doing so, we will come to terms with the characteristic curve, and having established the meaning of the curve, indicate how the technical understanding of the curve can aid in aesthetic expression, as in the Zone System.

D. Color Films and Papers (6 sessions). We will survey the technical requirements for making color films in terms of additive and subtractive color mixing rules. We will then explore the chemistry of color emulsions and development for a number of materials including color transparency, color negative film, color slides, and color prints. We will indicate how the technical understanding of such media can enhance the possibilities for aesthetic expression.

The classes will meet twice a week for 1 1/2 hours. Method of enrollment will be by instructor permission. If needs be, a lottery will be used.

NS 165 ASTRONOMICAL OBSERVING/VISUAL AND PHOTOGRAPHIC

Mini

This course is intended as a basic introduction to the sky and its contents—the constellations, the sun, moon, and planets. What can we see with the unaided eye—how much more with a small telescope? What do we need to know to obtain photographs—and what can we learn from them? (Students are encouraged to take one or more of the photography modules in addition to this course.)

Expected student input: an observational project.

Meetings: one 3-hour discussion and/or observing session per week. This is a minicourse and will run the first 4 weeks of the term.

PHYSICS AT HAMPSHIRE

The study of "real physics" at Hampshire will be structured around an introductory two-term sequence, *Basic Physics* (with its attendant laboratory experiences) and advanced follow-up courses. *Basic Physics* is team taught by all the faculty who have an interest in physics. The sequence will require mathematical facility, so it begins in the Spring term, not the Fall. We advise students interested in physics to take Calculus (NS 260) during the Fall as an excellent prelude.

Anyone interested in physics will be welcome to participate in the tri-weekly discussions which will help set objectives and organize our program to meet the full range of Hampshire's curricular needs for Physics, "the science of everything."

NS 118 PHYSICS OF WAVES

Janet Van Blerkom

The light we see, the sound we hear, the activity in our brains and the tremors of the earth itself all have a common feature: they are examples of wave motion. An understanding of waves on a fundamental level thus enables one to comprehend an enormous array of diverse phenomena. Moreover, in the microscopic world of atoms and their constituents, the distinction intuitively obvious in our macroscopic world—between waves and particles vanishes. The very structure of matter requires an understanding of waves. We intend, therefore, to study those features of wave motion common to all wave phenomena, and then to consider individual applications such as waves on strings, in water and in air, the sounds of various musical instruments, the interference of waves, light waves, microwaves and waves and particles in modern physics. There will be bi-weekly problem sets and lab projects will be arranged.

Class will meet twice a week for 1 1/2 hours.

NS 173 UNDERSTANDING RELATIVITY

Stanley Goldberg, Kurtiss Gordon

In this course we will examine the sources of the basic elements of the special theory of relativity first from an historical point of view and then, in a more abstract and analytical context. We will assess the role that experiment played in suggesting and verifying the theory and in doing so to attempt to assess the extent to which experimental, philosophical, and social factors play a role in the changing patterns of our explanations of the physical world.

There are no prerequisites for the course. It will be useful to have a working knowledge of very basic algebra and trigonometry. We are committed, however, to helping those who feel deficient in these skills to use the course to gain greater proficiency.

Class will meet twice a week for 1 1/2 hours.

NS 102 DO WE HAVE TO DIE?...MOLECULAR BIOLOGY OF DEATH AND DYING

Michael Gross

Scientists have been trying to explain, on a molecular level, such findings as the failure of any human cell line so far studied to divide to produce more than fifty generations of daughter cells; the rigidification of collagen (protein) molecules to produce, for example, the wrinkles of old age. The purpose of this course is to introduce you to the scientific literature in such areas, so you can analyze these explanatory models for yourself. Group or individual projects will culminate with a research paper.

Class will meet twice a week for 1 1/2 hours. This 6 week minicourse will start the week of October 30, with a January term follow up.

NS 21 TOPICS IN HUMAN BIOLOGY, PHYSIOLOGY AND MEDICINE

J. Foster, M. Bruno, N. Goddard, M. Gross, S. Oyewole, and A. Woodhull

The human body—its structure, functions, behavior and diseases—provides a rich source of topics for students to explore. Our aim here is to coordinate these studies so that each student may have an opportunity 1) to get to know the faculty and what they are interested in, 2) to choose from a wide range of possible topics which can be explored in a small group under the guidance of one of those faculty, 3) to learn laboratory skills and pursue small clinical studies if desired, 4) to hear professionals in the fields of medicine and public health discuss the application of basic physiological and biochemical principles to problems in contemporary medicine and, 5) to share what the student has been studying with others in the program.

The program will offer the following:

- Small discussion groups
- 1st 6 weeks—discussions led by faculty on topics chosen by them.
- 2nd 6 weeks—topics chosen by students taking the course, Div. II/III/NS students or faculty.
- Weekly lecture series—Contemporary Medical Problems given by faculty and invited speakers. (Once a week—1 1/2 hours).
- Open laboratory—for students wishing to learn clinical laboratory techniques and to do clinical projects.
- End-of-semester symposium—for students wishing to present papers on the work they have been doing.

Faculty and interested areas:

John Foster, biochemist; laboratory problems.

Marie Bruno, neurobiologist; obesity, color vision, elementary science education.

Nancy Goddard, parasitologist; epidemiology, parasitology, human reproductive physiology.

Michael Gross, historian of biology.

Sandra Oyewole, microbiologist; public health, cancer.

Ann Woodhull, biophysicist; neurobiology, physiology of human movement, poisons.

The courses below are directly related to TOPICS IN HUMAN BIOLOGY, PHYSIOLOGY AND MEDICINE, and students may wish to participate in both.

NS 196 PAT, DIET AND WEIGHT LOSS, M. Bruno

NS 102 DO WE HAVE TO DIE?...MOLECULAR BIOLOGY OF DEATH AND DYING/last six weeks, M. Gross

NS 175 TOPICS IN CANCER RESEARCH, S. Oyewole

Other courses and minicourses will be announced later.

NS 124 MICROBIOLOGY

Sandra Oyewole, Lynn Miller

The lecture-discussion format of this course will be designed to introduce students to basic principles of microbiology as well as current topics of research. Emphasis will be on bacteria, bacterial viruses, and yeast. Microorganisms will be discussed both as agents of disease and as benefactors of humans. The laboratory skills learned in the initial sessions will later be applied to independent projects. Hopefully students will leave the course with an appreciation of the ubiquity and variety of microbial life and with the ability to use some of the research tools of the microbiologist.

Class will meet twice a week for 1 1/2 hours plus lab.

NS 126 BEANBAG GENETICS: THE EVOLUTION OF GENETICS

Lynn Miller and Kenneth Hoffman

This course is intended to be an introduction to the history and the concepts of genetics. We will spend the first four weeks of the class time reading and discussing some of the original research papers from the early days of modern genetics. We will try to do four things in this period:

- (1) learn to analyze genetic research papers;
- (2) learn to think mathematically about genetics;
- (3) learn to think about the historical and social context of modern genetics;
- (4) start to work on individual or group projects in areas of genetics of interest to the students in the class.

During this period the students will be asked to write brief essays and work on improving their mathematical skills.

In the second four weeks each student, working individually or in groups with one of the instructors, will take original research papers and begin to develop topics to share with others in the class.

The class will not meet as a group in the last four weeks which will be free for those who wish to complete Division I Natural Science exams with the instructors.

Class will meet three times a week for two hours each.

NS 175 TOPICS IN CANCER RESEARCH

Sandra Oyevole and Debra Bessen*

Volume of publications on cancer related research give us an opportunity to examine the approaches that are being used to tackle the problem. We will consider chemical agents which have been labeled carcinogenic, particularly studies which led to their identification as such. Some emphasis will be placed on viral agents which have been implicated in cancer. We will also discuss the epidemiology of cancer and mechanisms of carcinogenesis, as well as some relevant cellular biology. The format will be a combination of lectures and discussions of scientific articles.

The first 4-6 weeks will be devoted to reading papers dealing primarily with basic physiology. This part of the course therefore forms one of the discussion groups in the Human Biology program (NS 121) and is open to all students in the program. Those students wishing to continue studying the cancer problem will remain with this class. Those wishing to go on to other topics may do so by transferring to another group.

Class will meet twice a week for 1 1/2 hour each.

*Debra Bessen is a Division III Hampshire College student.

NS 178 BIOLOGY AND SEXUAL IDENTITY

Mini

Michael Gross

Sexual identity may have roots in the biological fact of being male or female, as the saying is "it's in the genes". For instance, men's brains differ from women's in neural organization, don't they? Or do they? How do natural scientists study such questions? In the following ways, among others: they look, for instance, at the psyche and behavior of intersexuals or hermaphrodites; or they attempt to explain homosexual behavior by way of chromosomal differences or hormonal imbalances; or they study physiological and psychological differences in patterns of sexual response or responsiveness. We will read examples of such studies—done in both animals and humans. Besides taking note of the cross-species differences and similarities, we will need to take into account the breadth of cross-species differences in sexual behavior and gender identity. A lesson—to say the least—in cal rationality and objectivity. And an exercise in writing a meaningful research paper or essay.

Class will meet twice a week for 1 1/2 hours. This minicourse will run for the first six weeks of the semester.

NS 179 "I FEEL... BUT WHERE AM I?"... SCIENCE AND THE EMOTIONS

Michael Gross

Essentially this is a course about how scientists have approached the relationship of mind and body. Since emotions have most often been seen as the link between these realms, our strategy will be, first, to look at the relationship in the theories we study, between emotion and reason, feelings and ideas; and, second, to sort out which, if any, locations in the body theorists have associated with the emotions.

The first part of the course will survey six topics, through lectures and discussions. The second part—during January term—will be a research seminar in which members delve more deeply into questions raised during the fall semester.

The course will begin with Julian Jaynes' model (in *The origins of consciousness in the breakdown of the bicameral mind*) of how emotions become identified with the body. With Jaynes' ideas as a methodological framework for "sensitizing" various theories of "emotional" historical events and cultural experiences, we will turn to a consideration of: Descartes and "mind-body dualism"; the integration of mind and body in mid-18th century and the dichotomization of thought and feeling in the 19th century development of experimental approaches to the nervous system; the contrast between Freudian and Reichian interpretations of emotions; and the implications of behaviorism and psychoanalysis in modern scientific considerations of the problem of emotions.

During the January term research seminar, we will explore more deeply one of these general areas, by analyzing the sources in the scientific literature. That will involve library research, bibliographic skills; and the development of analytical skills and an ability to detect subtle but significant conclusions about the scientific options which underlie scientific investigations.

Meetings twice a week, two hours each.

NS 196 FAT, DIET AND WEIGHT LOSS

Merle Bruno

This study group in Human Biology will evaluate some of the research being done on the physiology of FAT: what is fat, where is it, how did it get there, how does it leave. The whole group will work together on one topic and each student will also be expected to look up individual or group projects will also be expected to report on their findings to the class. The choice of material will depend somewhat on the interests of the group. Some possibilities are: fat cell numbers, fat metabolism, carbohydrate diets, fasting, hunger theories, fat diets, and diet drugs.

Two 2-hour meetings per week.

NS 129 GRASS, SHEEP AND DOGS

Raymond Copping, Paul Slater, John Torrey*, Charlene Van Raalte

One of the greatest green revolutions of all times took place here in New England. For economic and social reasons agriculture went into a decline in the 19th century and much of the farmland reverted to forest. However many people are now looking for an agricultural revival in this area as farmers see new economic opportunities and young people search for alternative life styles.

This course will focus on one potential crop: sheep. The problems with sheep in New England are that we no longer have the greenlands to support numbers of them, we don't have a breed which is adapted to this area, and sheep in New England are particularly vulnerable to attack from the large domestic dog population. Therefore we will study the basic biological aspects of sheep farming including the physiology and ecology of forage crops, the nutritional qualities of grass and alternative sheep food, self-fertilizing forage crops, the physiology, anatomy and behavior of ruminants, as well as the behavior and control of sheep predators.

The course will be taught by a plant physiologist, an ecologist, an agriculturist, and an animal behaviorist. These teachers are currently active in research in these areas. Although there will be lectures, laboratories, field trips, and guest speakers, the main action will be student projects.

These projects will be done in conjunction with the faculty's research goals. Currently there are several Division III students who have projects that have to do with factors which students therefore will be expected to participate in lectures, field trips, etc., and participate in a project directed by an upper level student. Evaluations (for five-credits grades) will only be given when a written project report is received.

Although the course meets for two four hour sessions each week a student must expect to spend considerable time carrying out projects. Many of these projects involve experiments with animals or ecological measurements that will require precise scheduling.

The course will meet twice a week for four hours each.

*John Torrey is Professor of Biology at Harvard.

NS 140 NATURAL HISTORY OF THE CONNECTICUT RIVER VALLEY

J. Foster, K. Hoffman, R. Lutts, C. Van Raalte

In this course we will explore the basic principles of ecology, botany, and geology using the local area as a source of motivating examples and study sites. After the first two weeks, students will move into one of the following three groups for the remainder of the term, although we will still meet as a group from time to time for lectures of interest to all the groups. Since enrollment is limited in each of the groups, students should speak to the leader of the group in which they are interested at the beginning of the term, to be sure of getting in. Limited walking around may be available after the initial two week period.

Ken Hoffman: I plan to go out on a field trip each week throughout the term, rain, snow or shine to explore a wide variety of ecosystems and geological sites. In addition, there will be a weekly lecture and discussion session. I am particularly interested in getting students to see the patterns and interrelationships in nature, and this will provide the principal focus to this group. We will look at many different areas and will learn how to "see" what is there. A brief paper will be expected after each field trip, weekly reading assignments will be given, and several field projects will be worked out with students during the term.

Limit: 15 students, first come first serve basis

John Foster and Charlene Van Raalte: We plan to choose a small watershed and follow its behavior through the academic year with two groups of students. Our "mode of inquiry" will be to study one habitat intensively. This will involve field observation and measurement, sampling and laboratory analysis, readings from the experimental literature. Expect to spend a full afternoon a week in the field or in the laboratory, plus 1 1/2 hours a week conference time. We plan to continue the project into the spring semester for those students interested in doing so. Since one of us is a biochemist (J. Foster) and the other is a plant ecologist (C. Van Raalte), we will offer our students a broad range of approaches to the study of a forest watershed and ecosystem.

Limit: 30 students (15/group, first come first serve basis)

Ralph Lutts: We will study swamps, marshes and bogs. We will survey the different kinds of wetlands in our area, select one for our study, and design a number of small projects on the natural history and ecology of our site.

Here is a chance to do an exam that actually is a quiz!

Limit: 15 students (first come first served).

NS 149 TOPICS IN AGRICULTURE

Paul Slater

This course will deal with selected topics relating to agriculture as presently practiced in the United States. We will concern ourselves with evaluating current practices in light of emerging concerns for environmental quality, energy conservation, current employment opportunities in agriculture, etc.

Class will meet twice a week for 1 1/2 hours. Films and field trips are planned.

NS 167 ALTERNATIVE ENERGY FUTURES FOR WESTERN MASSACHUSETTS

Allan Krass

This is a series of lectures by Hampshire College faculty and visiting experts on the general problem of whether an area such as Western Massachusetts can become more self-sufficient in its energy needs and what the nature and consequences of such a strategy might be. The lecturers will come from many different disciplines in the social and natural sciences and humanities and each will address the questions which his or her discipline finds particularly relevant in this issue.

The purpose of this lecture series is to generate interest in and provide some background for a major research project which is to begin in the spring semester.

The purpose of this project will be to examine the future energy options available to this area and to assess their political, social, cultural and economic impacts. This course is sponsored by the Environmental Studies and Public Policy program which hopes to give a sizeable number of students doing research on these questions with a view toward publishing our findings. We hope in this way to make a useful contribution to the evolution of energy policy and community design in Western Massachusetts and provide a model which other groups can use in other areas.

The lecture series can be taken either on its own or as part of the course Understandings of Nature (NS 179) taught by Ralph Lutts. Students who wish to be evaluated should register for that course. Students who attend only the lecture series will not be asked to submit any work for evaluation and will not be evaluated.

Class will meet once a week for 1 1/2 hours.

NS 171 ENERGY AND THE ENVIRONMENT

Allan Krass

This course is designed to provide an introduction to thinking about energy and pollution questions in an analytical and quantitative way. We will read a number of research and policy papers in these fields and develop the skills needed to understand and criticize the assumptions, arguments and conclusions found in these articles. To do this one must learn how to do rough "order of magnitude" computations, how to interpret graphs, how to manipulate data, and how to reason logically from fundamental scientific principles. The course is designed to develop these skills and at the same time introduce students to the basic concepts which underlie many of the currently fashionable topics in energy and environmental policy such as solar energy, radioactive pollution, nuclear reactor safety, destruction of the ozone layer, etc.

Every student will be expected to develop a project of his or her own (small group projects are also encouraged). The course will meet regularly for five weeks and then take four weeks off, during which time students can work on their projects and consult with the instructor. Then the class will reconvene for the balance of the semester and discuss the student projects.

Class will meet twice a week for 1 hour each.

NS 192 ELEMENTARY SCHOOL SCIENCE WORKSHOP

Merle Bruno

Despite rumors to the contrary, most elementary schools in the United States don't teach science in any form. Of the few that do, most use textbooks that take the readers' digress approach to explaining what the well-rounded 11 year old ought to know so that a modern science program often means that students are expected to memorize the current "facts" about DNA, ecology, and energy instead of learning the old "facts" about iron smelting, tree identification, and frog innards. Have we really progressed?

In this workshop you will use materials that have been designed to stimulate children to ask questions about the natural world and to find ways of resolving some of those questions. For the first few weeks, you will be the students and will work with these materials, ask your own questions and design and test solutions to your own and to one another's questions. For the last part of the semester, you will be teachers and will introduce these same materials to children, answer their questions and responses and to guide and be guided by their solutions and their problems.

Each student will be expected to do an independent project, make a presentation to class, and work in an assigned elementary school classroom. No science background is required. Students who have had no experience in science with the instructor early in the fall. Since we don't focus exclusively on science, many students have found it best to begin to develop an exam problem in the fall, and finish it in the spring as an independent study project. If enough people want to do this, we can organize an exam study group for the spring.

Division 11 students who wish to enroll will not teach in the elementary school but will be expected to assist the instructor by observing other students teach and giving them regular and detailed feedback. If you wish to do this, speak to the instructor.

Class will meet twice a week for two hours each plus time in schools which will be arranged individually.

DIVISION 11

ASTFC 21 STARS

George Greenstein (lectures), Tom Dennis (labs), at Amherst College

Stars and stellar evolution for students interested in a quantitative introductory course. Observational data on stars: masses, radii, and the Hertzsprung-Russell diagram at basic equations of stellar structure. Nuclear energy generation in stars and the origin of the elements. How many possible ways a star can die: white dwarfs, pulsars, and black holes.

Prerequisites: One semester of calculus and one semester of some physical science. This is a Division 11 course. Office hours are at 314 Merrill, Amherst College, by appointment.

This course will meet Mondays and Wednesdays 1:25 to 3:20 PM. Labs will be Thursdays 2 to 4 PM and 7:30 to 9:30 PM.

ASTFC 37 ASTRONOMICAL OBSERVATION

Waltraut Seitter and Richard White (at Smith College)

Basic astronomical techniques (photographic photometry, photoelectric photometry, spectral classification, and radial-velocity determination) and the use of astronomical catalogs and literature as applied to astronomical problems: physical and dynamical properties of stars, spectroscopic binaries, star clusters. Readings will include selected journal articles. Prerequisites: 1 semester astronomy, 1 semester physics. This is a Division 11 course.

Class will meet Mondays and Wednesdays 2:30 to 3:45 PM and evening labs, time to be announced.

ASTFC 43 ASTROPHYSICS I: STELLAR STRUCTURE

E. R. Harrison (at U. Mass, CRC 534)

The basic equations of stellar structure: energy transport in stars by radiation, conduction, and convection; atomic processes leading to stellar opacity; nuclear energy generation in stars; stellar evolution. Prerequisites: ASTFC 23 and the physics sequence, or permission of instructor. This is a Division 11 course.

Class will meet Mondays and Fridays 1:25 to 3:20 PM.

NS 283 QUANTUM MECHANICS

Herbert Bernstein and Allan Krass

Quantum Mechanics originally supplied an understanding of atomic phenomena and later became the fundamental theoretical framework of all modern physics. Its philosophical implications have changed our view of science and of the universe; the epistemological influence extends to all realms of thought. This rather rigorous course will cover the basic postulates of quantum mechanics, developing the formalism both in wave mechanics and in simple matrix mechanics. As befits a first exposure to the subject, our wave mechanics will concentrate on one-dimensional problems. The matrix mechanics will be devoted mainly to two-state systems.

The course is open to all students with background in basic physics and calculus, such as provided by Hampshire's introductory sequence or the equivalent. Class meets twice a week, 1 1/2 hours each time.

NS 201 GENERAL CHEMISTRY

Lloyd Williams

Our goals in this course will be to learn the basic language of chemistry and to develop the ability to think about chemical phenomena on a molecular level. In the fall term we will concentrate on quantitative descriptions of chemical and physical processes and discussion of the atomic and molecular models used to explain these phenomena. Topics will include: stoichiometry (mass relationships); thermodynamics; atomic structure and chemical bonding; properties of gases, liquids, and solids; solutions; and chemical equilibrium. Practical examples of general interest will be included wherever possible.

Students will be expected to develop skill in solving a variety of problems and a working knowledge of elementary algebra is essential. In the laboratory we will concentrate on developing basic skills and learning techniques of quantitative analysis. Students should expect to spend eight or more hours per week on readings, suggested problems, and preparation for laboratory. Summary problem sets will be assigned for each part of the course and are required for tuition. Written laboratory reports will also be required.

Class will meet three mornings a week. Two hours of laboratory are scheduled each week. Enrollment is limited to 25 students, first come—first served.

COURSE GUIDE 1978-79

NS 212 ORGANIC CHEMISTRY (FALL)

Nancy Lowry

The first semester of organic chemistry focuses on the structure of molecules and how the structure influences reaction pathways. Reference is made often to biological implications. Several problem sets are assigned and collected. Two hours a week of laboratory is scheduled but more time is needed to complete the experiments.

Text: Morrison and Boyd, "Organic Chemistry," Third Edition. A high school introduction to chemistry is essential; Division I students may take the course if they check with the instructor.

Class will meet three mornings a week for 1½ hours, plus two 2 hour labs per week.

NS 228 THE GENETICS OF EVOLUTION

Mini

Kenneth Hoffman and Lynn Miller

This course is designed for students interested in current ideas of the mechanism of evolution. We will read and discuss Dobzhansky's *Genetics of the Population Process* and Lewontin's *The Genetic Basis of Evolutionary Change*. Much of our time will be used to become familiar with some of the mathematical concepts that have been used to describe evolutionary processes. We will discuss also theories other than the presently accepted neo-Darwinian concepts of evolution. Students will be expected to lead individual sessions and to produce substantive written or other analytical work.

Class will meet twice a week for 1½ hours. This minicourse will meet for six weeks beginning the week of October 30.

NS 229 GRASS, SHEEP AND DOGS

Raymond Coppinger, Paul Slater
John Torrey, and Charlene Van Raaite

See NS 129 for complete description. Division II students taking this course will be expected to carry out a portion of the research currently being done by faculty members on sheep. They will be expected to participate in those portions of the formal Division I course where they lack the background material and in addition they will be expected to act as project leaders for several Division I students who wish to participate in the research. This means giving lessons on how to do literature searches, experimental design, scientific methodology and critiquing the writing of the final reports and, if possible, participation in their Division I examinations.

During the second half of the course a time will be set aside for a Division II seminar in which students will be expected to report on their group's research efforts.

US 226 "ECO-FEMINISM": AN ETHICS OF ECOLOGY AND FEMINISM

Janice Raymond

The course will bring ecological issues and feminist philosophy together. More specifically, it will focus on the world food problem; population planning and control; energy problems; environmental theories of health and disease; "specific ecology" theories; and the increasing incidence of iatrogenesis (doctor-induced diseases). The first part of the course will focus on lectures and discussion of these issues. The second section will emphasize individual and small group development of Div II exam projects for Hampshire students, where the instructor will work individually and in groups of 2 or 3, with students. The emphasis of the course will be on how such issues affect women in particular, and what the developing area of feminist studies has to say about such topics.

Interview with instructor required.

Class will meet twice a week for 1½ hours each.

NS 239 FACTORY IN THE FIELD - INQUIRY SEMINAR IN NATURAL SCIENCE AND SOCIAL SCIENCE

(SS 243)

Tad Danforth, Dunn Drobzough, Steven Gelais, and Marc Rothman (Faculty Sponsor: Allan Krass)

See Social Science course description.

*Tad Danforth and Dunn Drobzough are Division III Hampshire students; Steven Gelais and Marc Rothman are Division II Hampshire students.

NS 245 TOPICS IN MARINE BIOLOGY

Charlene Van Raaite

Through literature readings and a seminar format, we will contrast three marine environments: intertidal, open ocean and the deep sea. Physiological ecology will be emphasized. Students will gain a feeling for the kinds of questions modern marine researchers are asking.

A literature review paper and a class presentation will be expected for evaluation.

This course is required for and will prepare several students for a January Internship in Woods Hole.

Prerequisites: Ecology or biology and basic chemistry.

Limit: 15

Class will meet twice a week for 1½ hours each. (There will be preliminary class meetings during the first week of the term at the scheduled class time in my office, 206 Cole, and class will resume midweek.)

NS 260 CALCULUS

David Kelly

The course is designed primarily for students who anticipate studies in the physical sciences, but all students are urged to consider alternative math courses.

We'll cover in one term most of the standard material of the traditional two-term "freshman calculus" (see any other college catalog) and devote some time to the history, philosophy, and applications of the calculus.

Class will meet twice a week for two hours each, and problem help time will be arranged.

NS 269 MODERN ALGEBRA: PURE AND APPLIED

Kenneth Hoffman

Roughly half of this course will be devoted to covering the standard modern algebra topics—groups, rings, and fields—in roughly the standard fashion. The other half of this course will look at some of the ways these concepts are being applied today: crystal groups, algebraic coding theory, group representations and their applications to physics, projective geometries and related combinatorial problems. This course presupposes previous knowledge of calculus and a decent level of mathematical sophistication.

Class will meet twice a week for 1½ hours each.

NS 261 (SS 261)

MATH FOR SCIENTISTS AND SOCIAL SCIENTISTS

David Kelly

Traditionally, the mathematical preparation for scientists and quantitatively-minded social scientists begins with a year or more of the calculus. Easy access to high speed computers has increased the usefulness of other tools. For almost all scientists and social scientists (with the possible exception of physicists and engineers) the content of this course is more appropriate than calculus. Topics will include:

Functions and graphs
Computer simulation, calculation, and plotting
Elementary linear algebra (vectors and matrices)
Linear Models (including least-squares analysis)
Concepts of the calculus (the language and its interpretations)
Finite difference methods (applied to approximating solutions to differential equations)
Elementary probability and statistics (including Markov chains and the bell-shaped curve)

No previous programming experience is required; the computer will be used throughout the course.

Classes will meet three times a week for 1 hour each and an additional weekly evening problem session will be scheduled.

NS 274 SMALL COMPUTER DESIGN

(LC 241)

Robert Tinker

See Language and Communication course description.

SCHOOL OF SOCIAL SCIENCE CURRICULUM STATEMENT

The faculty of the School of Social Science have worked to create a curriculum based on critical inquiry in a variety of problem areas which reflect their interest in social institutions and social change. The aim of such inquiry is not simply to describe society, but to understand the historic and political forces which shape current values and structures. Accordingly, we have focused on overlapping interdisciplinary areas such as: political economy and history; psychology and individual development; social institutions; and women's studies. Although we also provide much of what is considered a traditional disciplinary curriculum, the clear direction of the School is to reach beyond the disciplines to a concept of social science that is a broader analytic approach to understanding societies and social change than any one discipline can offer.

Our faculty come from a variety of disciplinary backgrounds -- anthropology, economics, history, law, political science, psychology, and sociology. However, the School's identity is shaped much more by emerging constellations of thematic interests and cooperative teaching than by traditional academic patterns. Most of us teach with faculty of different disciplinary backgrounds within the School of Social Science, from other Schools in the College, and from outside the College as well as with students. As a result, faculty and students can bring a variety of perspectives to bear on issues which are not common in academic structures limited by the disciplinary allegiance of their members. We have begun to understand the limits of the single discipline, and can claim success in interdisciplinary teaching. We are not yet able to present all the various disciplines in a meaningful synthesis, but that is an ideal that is reflected in our efforts to develop a broad and interesting range of courses.

SCHOOL OF SOCIAL SCIENCE

PROBLEMS IN URBAN POLITICAL ECONOMY

SS 113

L. Hogan

ECONOMIC PERSPECTIVES ON WOMEN

SS 114

L. Nisonoff

POLITICAL JUSTICE

SS 115

L. Mazor

MANIC DEPRESSIVE ILLNESS

SS 121

L. Farnham

INESCAPABLE MARK: AN INTRODUCTION TO MARXISM AND SOCIAL CRITIQUE

SS 124

M. Cerullo, J. Landes, and F. Lennox

KIDS AND KIN: THE SOCIAL ORGANIZATION OF CHILDREARING

SS 125

M. Mahoney and B. Yngvesson

COLLAGES: AN OVERVIEW

SS 128

M. Grohmann

GROWTH AND THE ENVIRONMENT

SS 131

S. Shapiro

CRIME, CRIMINALS, AND LAW-ABIDING CITIZENS

SS 133

B. Linden

AMERICAN SLAVERY: AN INTRODUCTION TO 19TH CENTURY AMERICAN HISTORY

SS 140

A. Berman

VISIONS ON SCHIZOPHRENIA AND CREATIVITY FROM ANALYTIC PERSPECTIVES

SS 158

E. Brown

SOCIAL DEVELOPMENT AND DEVELOPMENTAL PARADOXES

SS 165 (LC 165)

E. Conney and M. Mahoney

FROM NONSTARS... TO MEDICAL SCHOOLS: STUDIES OF VOLUNTARY AND INVOLUNTARY TOTAL INSTITUTIONS

SS 175

O. Fowlkes

AMERICAN CAPITALISM

SS 184

S. Warner

A HISTORY OF THE PRESS IN THE U.S.

SS 201 (LC 201)

D. Kerr and J. Pernass

INTRODUCTORY ECONOMICS

SS 210

L. Nisonoff

CAPITALISM AND EMPIRE

SS 214

C. Bengeladorf, N. Fitch and F. Weaver

PROBLEMS IN THE PHILOSOPHY OF LAW AND JUSTICE

SS 217

L. Mazor

WHAT'S HAPPENING IN COURT? CONTEXT, CONCILIATION AND CONTROL OF DEVIANTS IN THE JUDICIAL SYSTEM

SS 220

O. Fowlkes and G. Yngvesson

BLACK AMERICANS IN A CAPITALIST SOCIETY

SS 223

L. Hogan

MARXIST READING GROUP

SS 230

D. Sloss with M. Breitbart and L. Nisonoff as Faculty Supervisors

FACTORY IN THE FIELD - INQUIRY SEMINAR IN NATURAL SCIENCE AND SOCIAL SCIENCE

SS 243 (NS 239)

T. Danforth, D. Drobzough, S. Gelais and M. Rothman (Faculty sponsors: S. Warner and A. Krass)

AMERICAN PUBLIC POLICY

SS 249

S. Shapiro

SCHOOL AND SOCIETY

SS 260

H. Rose

MATHEMATICS FOR SCIENTISTS AND SOCIAL SCIENTISTS

SS 261 (NS 261)

D. Kelly

THE URBAN CONDITION

SS 265

M. Breitbart

WOMEN IN SOCIALIST SOCIETIES: THEORY AND PRACTICE

SS 280

C. Bengeladorf and J. Landes

WESTERN MARXISM

SS 281

M. Cerullo

NOTE: The School of Social Science will be making a faculty appointment in Asian Studies.

SS 113 PROBLEMS IN URBAN POLITICAL ECONOMY

Lloyd Hogan

The course is designed as an exercise in methods of inquiry by economists. Urban living in a highly developed technological society provides the setting in which the exercise takes place, and specific problems of urban living are used as the mechanisms through which new knowledge is developed or in which old knowledge is given greater clarity and understanding. Some of the problems to be dealt with are poverty, unemployment, blight, congested transportation, environmental pollution. Other problems of special interest to students in the course will also be accommodated through group study or by independent research. Great emphasis will be placed on (a) the manner in which economists formulate the problems to be solved, (b) the conceptual or theoretical equipment employed in the solutions, (c) the data requirements for testing arriving at solutions, (d) the data sources which now exist, (e) the critical limitations of the solutions. Successful completion of the course will also require an independent research paper.

The course will meet twice a week for 1½ hours each session. Enrollment is limited to 20. First come, first served.

SS 114 ECONOMIC PERSPECTIVES ON WOMEN

Laurie Nisonoff

This course will analyze the economic position of women in American society and the process by which economists examine society. We will begin with a brief historical perspective on women's economic role in society, paying particular attention to the sexual division of labor in non-market work and in the labor market, and the development of the distinction between non-paid and paid labor. We will compare and contrast the ideas of the various paradigms of economics concerning these issues.

We will analyze the experiences of women with varying socio-economic backgrounds, including a unit on the black family, and examine the economics of discrimination and hierarchy. We will discuss the strategies that are most effective for organizing women on their jobs in order to develop a perspective on the relationship between women's status in the society at large and their economic position. Hopefully, this will lead to a strategy for social change.

Individual presentations in class on the current topic will be expected, and participation in a project (either individual or collective) ~~may be required~~ ~~will be encouraged~~. ~~The instructor~~ ~~will be encouraged~~ to use the course to encourage the use of one might write a paper, a series of newspaper articles, or a script for presentation during Women's Week.

The class will meet twice a week for a total of three hours. Enrollment is limited to 25. Is open to men and women, and Five College students are welcome. First come, first served basis.

SS 115 POLITICAL JUSTICE

Lester Mazor

Politics is an activity basic to all human interactions; law is the principal instrument of government in modern society; justice is one of the highest ideals of human existence. This seminar will examine the ways politics, law, and justice intersect in dramatic political trials. The goals of the seminar are to establish some familiarity with the characteristics of a trial in a court of law, to examine the functions and limits of the trial process, and to explore theories of the relation of law to politics and of both to justice.

We will begin by examining the roles of the parties, attorneys, witnesses, judge and jurors in a conventional trial on a matter which is not highly charged with political consequences or emotion. The bulk of the course will consist of class study of a number of notable political trials and of the myths which arise from them. Examples of the kinds of trials I have in mind are the Sacco and Vanzetti case, the Rosenberg case, and the case of the Chicago Eight. What political ends were sought and obtained and whether justice was done will be persistent questions.

The material for discussion will include transcripts of the trials and contemporary news accounts wherever possible; *Marx, The Trial*, and other works of poetry and fiction; Kirchheimer, *Political Justice*, and other works of political and legal theory.

During the last third of the course students will work in small groups to develop presentations on particular cases. Several Hampshire students who are doing advanced work in this field will assist in leading these groups and also will work closely with the students in the course during its earlier phases.

The course will meet twice a week for an hour and a half each meeting. Enrollment is limited to 20. A lottery if necessary.

SS 121 MANIC DEPRESSIVE ILLNESS

Louise Farnham

The seminar will address such questions as: What is the nature of manic depressive illness? What are the criteria for differentiating effective psychoses from other forms of psychopathology? How does manic depressive illness develop. What therapies are currently employed and what therapies have been employed in the past in the treatment of manic depressive illness? How effective are they?

The first part of the seminar will be devoted to an introduction to the general principles of abnormal psychology and the classification and description of psychiatric disorders. After this context is provided, the remainder of the course will deal specifically with manic depressive illness. Readings will be drawn from a variety of texts, research papers, and reviews. The seminar will meet twice a week for one and a half hours each time. The work of the seminar will include an independent project which can be either an oral presentation to the class or a research paper. Enrollment is strictly limited to Division I students, no more than 20. A lottery will be held if necessary.

SS 124 INESCAPABLE MARR: AN INTRODUCTION TO MARXISM AND SOCIAL CRITIQUE

Margaret Cerullo, Joan Lundes, Frank Lennox*

"Marx is unavoidable, at least for anyone who begins to ask questions not about society but about the nature of our thinking about society. Later on, such inquiries bring one to confront Marx's thought, and then one is compelled to adopt, confuse, expand, escape from or come to terms with the person who has defined the very task of critical social inquiry itself." This course is designed as an initial confrontation with Marx's thought for Division I students. We will investigate Marxism as a method of thought, specifically as a critique of the nineteenth century out of which it grew and of contemporary society. We will study Marx's early philosophical writings to learn his method and his vision of a society freed from the antagonisms of capitalism. From this beginning in the early writings we will turn to some of the essential political, historical, and economic ideas of the post-1848 period. Throughout the course we will evaluate the ways that Marx's analysis of 19th century society is relevant for our understanding of our society and our lives. We will conclude the course with a consideration of recent writers in the Marxist tradition who have addressed the questions of the effect of the capitalist organization of society on daily life, the labor process, the family, and the oppression of women.

Our collective efforts in this course will require extensive reading as preparation for class discussion, working together with others inside and outside of class, and periodic written assignments. The course is designed for students with little background in the field.

Reading: Fredy Nerman, "The Reproduction of Everyday Life: The Patriarchal Speaks"
David McLellan, ed., Karl Marx: Selected Writings
David Cohen, Karl Marx: A Biography
C. P. Hugel, Reason in History
Eric Hobsbawm, Age of Revolution
Sheila Rowbotham, Women's Consciousness, Men's World

This course will meet twice a week for one and one-half hours each session. Enrollment is limited to 20.

*Frank Lennox is Director of Graduate Placement at Hampshire College.

SS 125 KIDS AND KIN: THE SOCIAL ORGANIZATION OF CHILDREARING

Maureen Mahoney and Barbara Yngvesson

In this course we will examine the family in cross-cultural and comparative perspective in order to explore the impact of economy, technology, and physiology on family roles and childrearing practices. In order to do this, we shall focus on contrasting social organizations: pre-industrial hunting and gathering societies (for example, the Bushmen and the Eskimo), fully industrialized societies (e.g., the United States) and utopian communities that have attempted to change family roles by consciously rearranging childrearing practices (for example, the Israeli Kibbutz, and the Oneida Community). We will examine the relative diffusion of childrearing responsibility by asking who takes care of children? Is it the mother given primary responsibility or is the child cared for by a network of adults who share the task and who are available to support the mother? What role are men expected to take with children? What happened to "tradition" roles in utopian communities whose goal has been to change them? And how do the various arrangements complement or conflict with organizational and ideological goals of the society?

Since the course will be co-taught by a developmental psychologist and an anthropologist, we shall also explore the different kinds of questions and methodologies each brings to the study of childrearing. Readings will include a variety of ethnographic, sociological and psychological literature.

The course will meet twice a week for two hours each meeting. Enrollment is limited to 20.

SS 128 COLLEGES: AN OVERVIEW

William Grohmann

An examination of the historical development of higher education in this country, with emphasis on social and economic purposes and effects. The issues to be discussed are: the impact of college on students; the rise of specialization/professionalization; colleges as social institutions; elitist and egalitarian views; and "overeducation." A conceptual approach will be taken. Readings from books by David Riesman, Christopher Jencks, Arthur Chickering, Burton Clark, Theodore Newcomb, and Daniel Bell.

Students will be expected to read (and report on) several books of their own choosing and to complete a substantial project on an issue of their own choosing. This should enable students to focus on areas of study which interest them most, ranging across many of the disciplines of the social sciences.

The course will meet twice a week for one and one-half hours in seminar format. Enrollment is limited to 20 on a first-come, first-served basis.

SS 131 GROWTH AND THE ENVIRONMENT

Stewart Shapiro

In this course we will examine the relationship between the desire and/or need for economic growth and the environmental constraints upon such growth. Different theories and approaches will be studied in an attempt to analyze their likely political implications. Particular emphasis will be given to the analysis of various authors' assumptions regarding the conflicting priorities of economic growth and environmental protection, whether the desire for continued growth is inherent in human nature, where traditional notions of desirability fit in this context, and if it is possible and/or desirable to attain a middle ground between the two goals.

The course will meet twice a week for 1 1/2 hours each session. Enrollment is limited to 20 on a first-come, first-served basis.

SS 133 CRIME, CRIMINALS, AND LAW-ABIDING CITIZENS

Barbara Linden

This seminar will focus on one of the major problems in the sociology of social control: the problem of the definition of types of "deviant behavior," both at an individual and at a structural level, will be examined (e.g., those focusing on socialization, group membership, structural-functional approaches, opportunity structure, and strain-theory/rehabilitation approaches). Readings and discussion will stress the testing of theoretical models in terms of the degree to which they explain and predict certain types of behavior, and in terms of the implications they may have for policy formation. Readings will include current theoretical and empirical works, cross-cultural studies, historical and contemporary policy proposals, and ethnographic accounts. Students will be required to complete two short papers and one major research project, to be presented to the class.

Enrollment limit: 16. A lottery if necessary. Five-College grades will be given. Meeting time: two hours weekly.

SS 140 AMERICAN SLAVERY: AN INTRODUCTION TO 19TH CENTURY AMERICAN HISTORY

Aaron Berman

This course will examine the centrality of slavery to pre-Civil War American history. Readings will include many of the major studies of slavery written since 1900. Weekly discussion sessions will focus on the methodology of the studies and changing perspectives of plantation life and slave community. Particular emphasis will be on the political and social context in which the study was written.

A weekly lecture will discuss broader issues of American history in relation to slavery. Topics will include: development of Southern economy and society; Abolitionism; American racism; and the coming of the Civil War.

Students will be expected to write two short papers (about 4 pages in length) and one longer paper of 12-15 pages.

The class will meet twice a week for 1 1/2 hours each time. Enrollment is limited to 20 students, to be chosen by lottery.

SS 158 VIEWS ON SCHIZOPHRENIA AND CREATIVITY FROM ANALYTIC PERSPECTIVES

Eva H. Brown

Some of the questions which will concern us include:

What is the nature of schizophrenia?
How do we mean when we say a person is creative?
How are schizophrenia and creativity related developmentally? Are they? And if so, where exist the boundaries between the two?

Through the medium of case study material, we will try to get a grasp on how the Freudian, Sullivanian, and British Object Relations Schools (Fairbairn, Winnicott, and Guntrip) tried to understand these human processes. Case material will be supported by theoretical writings. A supplementary reading list that goes beyond the scope of the class will be provided for those interested in developing a Division I exam.

Class meetings will take the form of discussions and presentations from the reading material. Class presentations will form the basis for written work. There will be lectures on request.

Please come to class having read Calvin Hall's *Primer of Freudian Psychology*. It should be available in the Attitux Bookstore and on Reserve.

The course will meet twice a week for two hours each session. Enrollment is limited to 18. First come, first served, lottery if necessary.

SS 165 SOCIAL DEVELOPMENT AND DEVELOPMENTAL PARADIGMS

Ellen Cooney and Maureen Mahoney

The purpose of this course is to introduce the student to developmental psychology by exploring both what we know and how we know what we know about the social development of the child. Focusing specifically on several central topics in social development including moral development, sex-role development, peer relations, play and friendship, we will read the theoretical and empirical literature to learn what we know about these areas as well as to compare the various theoretical models (psychoanalytic, cognitive, social learning, sociological) and the methodological strategies (naturalistic observation, clinical interview, experimental manipulation) used to study them.

Throughout the course we will consider the issues of how certain theoretical approaches lead researchers to formulate certain questions and not others. Further, we will ask how the specific methods used are shaped by underlying theoretical assumptions and how they in turn limit the nature of the findings and conclusions which can be drawn. Why, for example, have American psychologists rarely looked at infant-infant interaction? How do the questions a Freudian might ask about play compare with those asked by a Piagetian or a social psychologist and what are the implications of this for our understanding of this topic? Why is Piaget interested in children's thoughts about fairness and understanding of rules whereas a social learning theorist explores "pro-social" and "anti-social" behavior? Which of these perspectives would be more useful in answering questions about the impact of TV violence on children, or the appropriate kinds of discipline to use in a first grade class?

Course meetings will consist mainly of discussions and lectures. Readings will include selections from Freud, Erikson, Kohlberg, Piaget, Bruner, and Bandura, among others. Students will be expected to complete readings prior to class meetings and to contribute actively in discussions. Frequent short (1-2 page) papers on questions raised by the readings as well as one longer (12-15 page) paper are required. Five-College students are welcome and may receive a grade if requested.

The class will meet twice a week for 1 1/2 hours each meeting.

Enrollment limit: 20, first come.

SS 175 FROM MONASTRIES... TO MEDICAL SCHOOLS: STUDIES OF VOLUNTARY AND INVOLUNTARY TOTAL INSTITUTIONS

E. Oliver Fowles and Jon Parker*

This Division I Social Science course is designed to study monasteries, boarding and professional schools, military organizations, mental hospitals, prisons, concentration camps and other total institutions in order to understand their underlying social structure and patterns of interaction which take place within them. The course, which is set for beginning students, is focused on integrating readings and class discussions with student group-oriented projects.

The following issues will be considered by this course in addition to others which might emerge from the subject matter:

- Differences between voluntary, involuntary, coercive and non-coercive total institutions;
- The relationship of formal structure to coercion in the institution;
- Ways in which tension between participant and outside world affects institutional functions;
- Effects of the institution on participants' concept of self;
- Goals of various total institutions and their success in accomplishing these goals.

After an introduction to the course material, students will be expected to join a course study group to carefully examine one total institution, write a paper on it and present their findings to the class. Course participants will be expected to do library research and to make field trips to such institutions where possible for observation purposes.

Format for the course will consist of two one and one half hour class meetings per week during which lectures, discussions, and student presentations will be utilized. Besides class attendance, those enrolled in the course will be expected to do a good bit of reading, project research and to go on field trips where appropriate.

Enrollment is limited to 25. By lottery if necessary.

*Jon Parker is a Division III Hampshire College student.

SS 184 AMERICAN CAPITALISM

Stanley Warner

The primary focus of this course is the current structure and performance of American capitalism. We'll begin by developing the theory of alternative market structures: monopoly, competition, oligopoly. A dominant theme of this theory is that capitalism requires competitive markets if it is to function optimally. Because the concentration of economic power in the U.S. is so clearly at odds with this traditional belief in free markets, a number of new theories have emerged which attempt to rationalize -- even to the point of making a virtue of -- the dominance of a few hundred multinational firms. A second aspect of this course will be to critically evaluate these theories.

In a number of fundamental respects, however, the performance of an economic system involves questions that transcend the issue of whether markets are competitive or monopolized. Work alienation, class structure and consciousness, and the relationship of economic power of political power are three such areas of concern. These issues warrant full courses of their own. A third aspect of the course, however, will be to at least broach these questions with the hope that it will keep us from slipping into too narrow a frame of reference.

Throughout the course there will be a strong emphasis on direct applications to specific industries (steel, oil, autos, drugs), specific controversies (conglomerates and ITT, militarism, the energy "crisis") and specific proposals (from the New Populism of Nader, Fred Harris, and others to the approaches of the 'Old' and 'New' Left).

The reading will include:

F. M. Scherer, *Industrial Market Structure and Economic Performance*
J. K. Galbraith, *Economics and the Public Purpose*
Milton Friedman, *Capitalism and Freedom*
Paul Baran and Paul Sweezy, *Monopoly Capital*

This is a Division I course which assumes no prior work in economics. A person completing the course would be prepared for an intermediate course in the area known as microeconomic theory.

The course will meet twice a week for an hour and a half each meeting.

Enrollment is limited to 20. First come, first served.

SS 201 A HISTORY OF THE PRESS IN THE U.S.

David Kerr, John Parnass*

See Language and Communication course description.

*John Parnass is an advanced Division II student in American history and the press.

SS 210 INTRODUCTORY ECONOMICS

Laurie Nisanoff

An introduction to economic analysis, covering the principles of both major areas of conventional economic theory (i.e., micro and macro); serves as the needed prerequisite to virtually all advanced economics courses and itself contributes to a wide variety of concentrations.

The text is R. Lipsey and P. Steiner, *Economics* and the accompanying workbook; we will meet for two 2-hour classes per week.

Enrollment is unlimited. Five-College students will be graded PASS/FAIL only.

SS 214 CAPITALISM AND EMPIRE

Carol Bengelsdorf, Nancy Fitch, Frederick Weaver

Capitalism and Empire is a one-semester course which draws from 1000 years of human history. Its principal theme is the development of industrial capitalism in Western Europe and North America with particular emphasis on the manner in which changing social and political institutions have shaped the world conditioned as well as reflected that development. Events in Africa, Asia, and Latin America and the history of women are given serious consideration.

As a survey history course, it will present a coherent chronological narrative, but its major purpose goes far beyond this. By focusing on key analytical issues which surround the interpretation of the decline of feudalism, patterns of class formation and political power, colonial expansion and imperialism, revolution, and the development of liberal thought and socialist alternatives, the course will introduce students to the study of history as a series of multi-faceted social processes undergoing continual change. Faculty in the discipline of economics, history, law, and political science consider the substance and perspective of Capitalism and Empire to be necessary background for advanced study in such areas as social and political theory, feminist and family studies, political economy, legal studies, and the social, political, and economic structures of the contemporary world.

We will meet twice a week for lecture and discussion, and students will be expected to write several short critical essays.

Enrollment is unlimited.

SS217 PROBLEMS IN THE PHILOSOPHY OF LAW AND JUSTICE

Lester Mazon

What is the nature of law? What is the meaning of justice? These two questions have figured in the work of major philosophers from Plato to the present day and in the writings of legal scholars. This course will explore their ideas and seek to determine their significance for a number of topics of current concern.

A principal object of the course will be to examine the difference one's philosophic position makes to the resolution of practical problems. This emphasis will be reflected in the manner in which the course will be taught. After a brief introductory exploration of the history of legal philosophy, members of the class will be asked to select the work of a particular modern philosopher for intensive study. During most of the remainder of the term each student will speak on behalf of that philosopher in general class sessions on a series of issues, including civil disobedience, equality, the sanctity of life, the growth of the law, the capacities of international law to contribute to world order, the relationship of law and language, the impact of science and technology upon law, and the limits of the legal order.

No previous work in philosophy or law is presupposed.

Materials for the course will include Friedrich, *Philosophy of Law in Historical Perspective*, Hart, *The Concept of Law*, Fuller, *The Law in Quest of Itself*, and problem materials prepared by the instructor.

The class will meet twice weekly for 1 1/2 hours. Enrollment is unlimited.

IN 312 NEW CHINA: MIRROR FOR U.S. THOUGHT AND INSTITUTIONS

James Koplin

Almost everyone who returns to the U.S. from a visit to the People's Republic of China reports going through a period of extensive re-evaluation of his/her attitudes toward a great variety of this process by reading about topics related to the work of the students who enroll. The purpose would not be to become experts on China -- it would be to use a sketch of the Chinese mind to gain another perspective on the way any particular subject is handled in the U.S.

Here are some sample broad generalizations stated in terms of the Chinese image; you can look in the U.S. mirror and fill in those statements yourself:

Law -- there is a national constitution, but very little in the way of codified legal statutes?

Health care -- through a process of socialist education combined with an emphasis on prevention and on-the-spot treatment, many serious illnesses have been eliminated. For example, it is no longer possible to locate a live syphilis spirochete to use in the training of medical students.

Population distribution -- major urban centers have decreased in population during the past 10 years.

Basic research in natural science -- emphasis is on collective work, the classic story had to do with the synthesizing of biologically active insulin.

Economics -- there is essentially no inflation, no internal or external debt. Measured in terms of average annual income, the PRC is a very poor country.

Foreign policy -- it is assumed that Russia will attack China with nuclear weapons, so the emphasis is on preparation.

Art -- the "mass line" is stressed in art as well as most other areas. Museums are free. When the art of Old China is displayed, it is always with a political lesson.

And many others. In all of these areas the integration of theory and practice is prominently discussed as is the much-repeated slogan "serve the people."

Each member of the seminar would be expected to present the contrasting views on a topic similar to those listed above. A wide range of subjects is required in order to make this a valuable exercise. If you are considering signing up, please contact me as soon as possible (certainly before the end of May) so that we can discuss your interests -- and then arrange for some of the relevant books to be available in the bookstore in September.

Typical texts might be: Sidel, W. W. and Sidel, Ruth, *Serve the People: Observations on Medicine in the PRC*; China Science News on Two Legs prepared by the Science for the People Collective.

The seminar will meet once a week for 2 1/2 hours. Enrollment is limited to 10. Instructor's permission.

IN 315 CASE STUDIES IN THE SOCIAL HISTORY OF ARCHITECTURE

Barbara Linden

This course will focus on the social history of architecture by using biographies and autobiographies of important individuals in the field as starting points in analysis. Each student will complete a case study of one individual, which will emphasize the historical and political factors which influenced his or her ideas and contributions to the fields of architecture or the building trades. Readings, discussions, and case presentations will focus more on the above issues and on problems of interpretation in intellectual history than on architectural history per se.

Readings in social and architectural history will be drawn, in part, from the following: Banham, *Theory and Design in the First Machine Age* (1960); Ferguson, *History of the Modern Style of Architecture* (1962); Glog, *Architectural Interrelationships of Modernism* (1963); Hobsbawm, *Architecture: Nineteenth and Twentieth Centuries* (1958); Hobsbawm, *Industry and Empire* (1968); Jencks, *Modern Movements in Architecture* (1973); "History as Myth" (1970); Klingender, *Art and the Industrial Revolution* (1968); Korn, *History Build the Town* (1954); Revell, *Style and Society* (1971); Fawcett, *Pioneers of Modern Design* (1960); and Williams, *Culture and Society* (1958).

The course will meet once a week for two hours. Enrollment is limited to 12; by instructor's permission.

IN 317 THE WAREFARE OF SCIENCE AND RELIGION

Ruth Rhoad

When we consider what religion is for mankind and what science is, it is no exaggeration to say that the future course of history depends upon the decision of this generation as to the relation between them. (Alfred North Whitehead)

As in such a decision, this course will examine the historical encounters between modern science and religion, including such topics as: Newton and natural theology, Darwin and fundamentalism, and the place of faith in a technological society. Lecture and discussion. Students will be expected to pursue a topic of their own choice and present to the seminar for discussion.

will meet twice a week for 1 1/2 hours.

IN 319 ALTERNATIVES TO THE DOMINATION OF NATURE

Myrna M. Breitbart and Ralph Lutts

What is domination and how is it manifest in our culture? Is there a relationship between the domination of people and the domination of nature? Who cares? Why care? What are the social, economic, political, and environmental alternatives to domination? How might these alternatives be implemented?

This seminar will provide a theoretical framework within which students can address a variety of environmental, political, and philosophical issues from an interdisciplinary perspective. In the first part of the course, domination and its alternatives will be considered from several different perspectives including anarchism, mutualism, environmentalism, decentralism, education, etc. The latter part will, through student projects and presentations, emphasize a practical application of the ideas developed in the first section.

Seminar meetings will be based upon a discussion of numerous readings including such writers as Priore, Gandhi, Kropotkin, Bookchin, Leclerc, Hardin, Dubois, Burt, Stone, Huber, Mumford, etc. The course will meet once a week for 2 1/2 hours. Enrollment is limited to 15 students. First come, first served.

IN 321 THE ROLE OF RACISM AND SEXISM IN MAINTAINING MONOPOLY CAPITALISM -- U.S.A.

Gloria L. Joseph

This seminar has double focus; participants will: 1) Analyze basic institutions -- family, religion, schools, public health -- comparing their intended purposes with the reality of their functions. 2) Investigate, discover and examine the specific practices of racism and sexism in industry, jobs, health services, housing, etc. to see how they serve the economy and provide a disservice to the vast majority of Americans.

This seminar is integrative by nature and design. Analyzing various institutions presents the level of integration. Examining racism and sexism within the Capitalist System naturally incorporates the disciplines of economics, law, political science, Black Studies and Women's Studies, sociology, and history.

Tentative and partial reading list:

Black Awakening in Capitalist America - Allen
Black Families - Gutman
Capitalism, the Family - Zaretsky
Souls of Black Folk - Dubois
Educational Psychology, Cognitive View
Schools in Corporate America

The course will meet twice a week for an hour and a half each meeting. Enrollment is limited to 12 students on a first come, first served basis.

EMERITUS FACULTY BIOGRAPHIES

Mabel Rose, emerita professor of human development, received an M.P. from State University of Iowa and M.P.H. from Harvard School of Public Health. Dr. Rose has been Director of Outpatient Services at the Colorado Psychopathic Hospital in Denver, Assistant Psychiatrist at Emergency Medical Service at the British Ministry of Health in London, Commissioned Officer in the U.S. Public Health Service, Professor of Psychiatry at the University of Illinois School of Public Health. She has also written a number of articles, including "Emotional Factors in Delinquents," "The Parents' Contribution to Psychotherapy with Children," and "Mental Health of Exceptional Children."

Henry Minklin, emerita professor of music, taught at Amherst College from 1940 until his retirement as Chair of the Music Department in 1975. Retaining Amherst as Distinguished Professor of Music for two additional years. Dr. Minklin is the author of *Irrational Dissonance to the English Madrigal: Essays in Music and Studies in Italian Preclassical Music*, as well as a number of articles for *The Musical Quarterly*. His book *Music in Order* is being considered for publication, and he is currently working on a new book entitled *Music: The Last Two Decades*.

Evangelina Machin, emerita professor of theatre arts, received an M.A. from Edinburgh and an Ed.D. from Columbia. She was Director of Speech Studies at the Neighborhood Playhouse School of the Theatre of New York from 1942 to 1959 and for seven years was a Lecturer in Speech at Columbia University. She is a Professor Emerita from Boston University where she was Professor of Theatre Arts from 1960 to 1971. Among the well-known actors she has trained are Richard Boone, Tammy Grimes, Steve McQueen, Joanne Woodward, and Faye Dunaway. Dr. Machin is the author of *Speech for the Stage and Dialogue for the Stage*.

Lucas Grottano, registered architect, draftsman and designer, was a lecturer at the University of Massachusetts and recipient of the Stewardson Traveling Fellowship of the American Institute of Architects. Mr. Grottano did graduate work in planning at the University of Edinburgh where he did a survey of British and Scandinavian New Towns.

Gail Grottano, architectural designer and draftsman, attended the University of Edinburgh, Sarah Lawrence College, and Columbia University School of Architecture. Her professional experience has been with various architectural firms working on office interiors, university buildings, campus planning and landscaping.

If you wish further information about the courses connected with the Emeriti Program, please contact either the Dean of the Faculty Office or the individual faculty hosts:

Emeriti Faculty

Mabel Rose
Henry Minklin
Evangelina Machin
Lucas and Gail Grottano

Faculty Hosts

Barry Goldensohn
Ann Kearns
Josie Abady
Norton Juster and
Earl Pope

HA 105 DEVELOPMENT OF HUMANS

Mabel Rose

A seminar--using a holistic approach in reviewing some of the factors influencing human development. The complex interplay of physical, intellectual, emotional, hereditary and environmental factors will be surveyed. Assumptions from mythology, literature and history will be weighed, as will comparisons with animal behavior as reported by observation and research. Special attention will be given to early childhood and to theories of childhood development; however, the possible lifelong modifications of personality resulting from experience, environment and individual drive will also be considered. Direct observation of small children may possibly be included.

Student participation is taken for granted, with some individual research and observation to be contributed to the sessions.

The seminar will meet twice a week for 1-1/2 hours from September 12 through October 18.

HA 113 THE MUSIC OF BACH

Henry Minklin

A study of the instrumental forms of Bach. Special attention will be paid to the summary works of the last decade (1740-1750): *The Art of the Fugue*, *The Musical Offering*, *The Goldberg Variations*, and *Clavier-Übung*. Collateral reading from A. Schweitzer, C. S. Terry, and C. Geiringer.

The class will meet twice a week for 1-1/2 hours.

HA117/217 VOICE FOR THE ACTOR

Evangelina Machin

This course will involve teaching actors how to reach and use their natural voice to affect better speech both on and off the stage.

Enrollment is by invitation only and participants must plan to attend each class session.

The class will meet from September 11 through September 29 Monday through Friday for 2 hours.

BA 136 THE MAN-MADE ENVIRONMENT

Lucas and Gail Grottano
Norton Juster and Earl Pope

See description in HAA section.

LAW PROGRAM

The Law Program examines issues in law and society from a variety of perspectives. We seek to organize and support activity across School, divisional, and other boundaries within the College. The activity of the program includes courses, independent studies, concentrations, Division III projects, public events, field study support and supervision, and development of library and other resources.

Law is a phenomenon which touches every aspect of our existence. The study of law, legal processes, legal ideas and events provides a focus for many kinds of inquiry. The range of activities possible within the scope of our Law Program is as broad as the interests of those participating in it.

The Law Program is not designed as preparation for law school. Although there is some overlap between the interests of students who want eventually to go to law school and those who want only to include the study of law in their undergraduate education, the Law Program as such is concerned only with the latter. (Pre-law counselling is done by H. Oliver Foulkes and Lester J. Mazor.)

The Division III courses are the core of the Law Program's content. Students who plan a concentration in law, or, as is often the case, a concentration which includes some aspect of law in it, should look to the Division III courses as the foundation and entry point for their work. This fall we will be offering SS217, *Problems in Philosophy of Law and Justice*, taught by Lester J. Mazor, SS220 *What's Happening in the Courts*, by E. Oliver Foulkes, and Barbara Yngvesson, to introduce students to the criminal justice system.

Each year the Law Program offers some courses in Hampshire's Division I, Basic Studies. Like all Hampshire Division I courses, the primary objective of these courses is to develop the student's understanding of the mode of inquiry of the School or Schools in which they are taught and generally to contribute to the student's growth as a learner. During Fall, 1978, we will offer SS131, *Criminals and Law-Abiding Citizens*, taught by Barbara W. Linden; SS132, *Political Justice*, taught by Lester J. Mazor.

Independent study related to law may be done under the supervision of any of the faculty working in the Law Program. In particular, E. Oliver Foulkes is especially interested in mental health, the legal profession, representation for the poor and welfare law and can provide assistance in arranging field work placement; Barbara Linden has special interest in legal aspects of urban planning and organizational aspects of law enforcement; and is especially interested in legal history, philosophy of law, the legal profession, criminal law, labor law and family law; Barbara Yngvesson has special interest in social control.

Students have designed concentrations which draw very largely upon Law Program courses or which include some contribution of the Law Program to their plan of study. These have included concentrations in law and education, prisons, law and inequality, juvenile courts, and relevant portions of concentrations in politics, history, economics, sociology, environmental studies, women's studies, urban studies and a number of other fields. The Law Program regularly sponsors speakers, films, and other social events. Members of the Hampshire community who have in mind some event which would be appropriate for sponsorship by the Law Program are encouraged to request support from the Steering Committee.

No formality of admission or membership is required for participation in the Law Program. The way to indicate your participation is by placing your name on the Law Program mailing list so that you will receive notices of Law Program events and activities. This list is maintained by Franciska Duda, Factorum Hall, Room 218. There is a Law Program Center, where students working in the Program may organize and conduct their activities.

Suzanne Daley
Franciska Duda
E. Oliver Foulkes
Barbara Linden
Carolyn Karp
David Kateman
Paul Medol
Robert Ryan
Lester J. Mazor
Barbara Yngvesson

EDUCATION AND CHILD STUDIES

The Education and Child Studies Program at Hampshire College strives to meet the many diverse concerns of students interested in this area. Central to the study of educational issues is an understanding of children -- how they grow, develop, learn, and how they relate to family, friends, school, and the larger community. Closely connected is the need to understand the interrelation of the school and the larger society -- what are the values, goals, and aspirations of the individuals and groups of which a child is a part; what is the impact of different philosophies, policies, cultural norms, and political pressures on the structure and character of education. Students desiring a concentration in this program are encouraged to use both approaches in their search for understanding.

Thus, using these inquiries as a guide, students are urged to select from among the following list of courses as well as from other related offerings in order to develop a better grounding for more specific topics of their own choice. Those students desiring to become classroom teachers should consult with Hedy Rose, Coordinator of Education and Child Studies, regarding additional requirements and to plan their program.

Among the fall semester's offerings are the following:

SS 125, Kids and Kin: The Social Organization of Childrearing
SS 128, Colleges: An Overview
SS 147, Educational Psychology as a Political Force
SS 148 (IC 145), Social Development and Developmental Paradigms
NS 192, Elementary School Science Workshops

SS 260, School and Society
IC 221, Piaget: Theory, Research, and Educational Applications
IC 240, Child Language Development

Depending on individual concentrations, students are also encouraged to select courses from Language Studies, Cognitive Studies, and Family Studies. Other combinations can be designed on an individual basis.

FOREIGN LANGUAGES/
LANGUAGE STUDIES

Faculty: Mark Feinstein, Nancy Frishberg, Pelome Garcia-Bellido, James Gee, Leonard Glick, Frank Holmquist, Robert Marques, Raymond Pelletier, Hedwig Rose, and Janet Tallman

Hampshire College has no special foreign language departments, although instruction in French and Spanish is offered at the introductory and intermediate levels through intensive courses. Proficiency in a foreign language alone cannot be presented to

fulfill a divisional requirement in any of the Schools. But students with an interest in language will find that a deeper knowledge of foreign languages can enhance their work in many areas of language research: linguistic theory, sociolinguistics, and bilingual/bicultural studies, in particular. In addition to the regular foreign language instruction, the School of Language and Communication plans, in the future, to offer courses in the above disciplines in a foreign language: for example, a course in Spanish on the speech of Puerto Ricans in the United States; or a course in French on the linguistic conflict in Quebec.

Courses in other languages and foreign language literature courses are available through Five College cooperation. Some examples: Chinese and Japanese, as parts of the Five College Asian Studies Program; Greek and Latin; Germanic languages, including Danish, Dutch, and Swedish; Slavic languages, including Russian and Polish; and Romance languages, including Italian and Portuguese.

The main emphasis of language study at Hampshire, however, is on the linguistic and social phenomenon of bilingualism and biculturalism, and on the interactions of different language-speaking groups, in an attempt to put phenomena like Spanish-English bilingualism among Puerto Ricans and Chicanos, for example, into a broader intellectual context. The goal is to integrate current thinking and research in linguistic theory (on the nature of language universals, language learning, semantics, etc.) with the complex linguistic, educational, political, psychological and sociological research about situations where two or more linguistically and culturally distinct peoples must coexist, assimilate or separate.

In this country, the experience of Hispanic bilinguals is most directly relevant; hence, Spanish language and culture are often focal points of courses in the program. But courses also deal with the complex linguistic experiences of other multicultural societies -- such as Canada, India, Belgium, China, Malaysia, the Soviet Union, South Africa, New Guinea, Norway -- as well as the role of bilingual and biculturalism in the United States.

Although competence in a particular language is not a requirement of the program, ample opportunities are available for students to develop their foreign language skills, particularly in French and Spanish. In addition, the courses often provide a close examination of a wide variety of other languages, and students with no previous training in these languages will become acquainted with their general structure. Examples include Navaho and Kiowa (American Indian languages of the Southwest and Northwest, respectively); Sinhalese (a language of the Sri Lanka, or Ceylon); and the American Sign Language of the deaf. The stress, however, is on what a language may reveal about the people who speak it, and about the social, cultural, political and linguistic forces which shape the development of the language.

Recent courses which pertain to this area have included: "Bilingualism," "Sociolinguistics," "Black English," "Literature and the Black Aesthetic," "Humanity: An Anthropological Perspective," "Interpreting Other Cultures," "Ethnography," "The Spanish Language," "American Sign Language," and "Human Language."

Students can design concentrations on the social implications of bilingualism among Portuguese-American children; anthropological and linguistic problems of translation; sociolinguistic aspects of educating bilingual Puerto Rican children; and the relationship between language, psychology and culture, among others. Many good fieldwork opportunities exist in bilingual communities throughout the country, and several students have found placements in schools and social agencies in these communities.

Students interested in exam work, concentrations, or general information about the program should see Mark Feinstein, Assistant Professor of Language Studies.

Courses and faculty relevant to the program are:

LC 111	Bilingualism	Feinstein
LC 171	Language, Culture and Society	Feinstein, Gee
LC 177	Linguistics and Literature	Gee
LC 216	Communications in Everyday Life	Miller
LC 226	Theory of Language: Linguistic and Psychological Perspectives	Feinstein, Gee, Tallman
LC 228	Workshop in Conversational Analysis	Tallman
LC 113	Intensive Elementary Spanish	TMA
LC 130	Intensive Elementary French	TMA
HA 148	The Literature of the Caribbean	Marques
HA 221	The Intellectual and Social History of Spanish America	Marques
SS 125	Kids and Kin: Social Organization of Childbearing	Mahoney, Engstrom
SS 223	Black Americans in a Capitalist Society	Hogan

RECREATIONAL ATHLETICS

SHOTOHAN KARATE (BEGINNING)	Marion Taylor
RA 101	
INTERMEDIATE SHOTOHAN KARATE II	Marion Taylor
RA 103	
ADVANCED SHOTOHAN KARATE	Marion Taylor
RA 104	
AIKIDO	Marion Taylor
RA 105	
HATHA YOGA (BEGINNING)	Georgia Noble
RA 106	
HATHA YOGA (CONTINUING)	Georgia Noble
RA 107	
TAI CHI CHUAN (BEGINNING)	Paul Gallagher
RA 108	
TAI CHI CHUAN (CONTINUING)	Paul Gallagher
RA 109	
PHYSICAL FITNESS CLASS (THE EXERCISITS)	Renate Rikkers, Andrea Wright
RA 111	
FENCING	Will Weber
RA 112	
TOUCH FOOTBALL AND OTHER FIELD SPORTS	Kate Stanne
RA 113	
WOMEN'S FIELD HOCKEY	Kate Stanne
RA 114	
NEW GAMES AND GAMES INVENTING	Kate Stanne
RA 115	
KAYAK ROLLING AND POOL KAYAKING	Carol Fisher
RA 116	
BEGINNING WHITWATER RIVER KAYAKING	Carol Fisher
RA 117	
ADVANCED WHITWATER KAYAKING	Carol Fisher
RA 118	
WILDERNESS BRIDGE BUILDING	Derrick Elmes, Carol Fisher, Jay Evans
RA 119	

SHOTOHAN KARATE (BEGINNING)

Marion Taylor

Shotohan Karate is an unarmed form of self-defense developed in Japan. It stresses the use of balance, timing, and coordination to avoid an attack and effective means of counterattack to be used only if necessary. The beginning course will cover: basic methods of blocking, punching, kicking and combination thereof; basic sparring and basic kata, a prearranged sequence of techniques simulation defense against multiple opponents.

Class will meet on Tuesdays and Thursdays from 2:30-4:30 p.m., in the South Lounge, RCC.

Five College students will be graded on a pass/fail basis and must negotiate credits with the instructor before finalizing them with their registrars.

INTERMEDIATE SHOTOHAN KARATE II

Marion Taylor

This course is for students who have completed RA 101 and RA 102, or the equivalent.

The class will meet Tuesdays, Thursdays, and Sundays from 7:00-9:00 p.m., in the South Lounge, RCC.

ADVANCED SHOTOHAN KARATE

Marion Taylor

This course is for students who have attained the rank of brown belt or black belt.

Class will meet Sundays and Mondays, 4:00-6:00 p.m., in the South Lounge, RCC.

AIKIDO

Marion Taylor

Aikido is a Japanese form of unarmed self-defense having no offensive capabilities. It depends for effectiveness on the defender maintaining his own balance while redirecting the opponent's attack so as to unbalance him. Aikido techniques allow the opponent's attack to be foiled, the opponent to be helped to the ground gently, and pinned there without doing any physical damage to him. The beginning class will learn basic rolling falls both front and rear; methods of leading the opponent off balance and into falling; types of pins, and ways to gain release from various gripping or holding attacks.

All students will meet Mondays and Wednesdays, 11:00 - 1:00 p.m., in the South Lounge, RCC.

Five College students will be graded pass/fail.

HATHA YOGA (BEGINNING)

Georgia Noble

The beginning class will cover learning and practice of basic breathing method and postures. Emphasis will be placed on developing a healthy and supple body.

Class meets Mondays from 2-3:15 p.m., Center Room, Donut IV.

HATHA YOGA (CONTINUING)

Georgia Noble

The intermediate class will continue with postures and breathing exercises of more advanced levels. There will also be a greater emphasis on meditation.

Class will meet on Mondays from 3:30-4:45 p.m., Center Room, Donut IV.

Five College students will be graded on a pass/fail basis and must negotiate credits with the instructor before finalizing them with their registrars.

TAI CHI CHUAN (BEGINNING)

Paul Gallagher

Tai Chi Chuan is a "moving meditation". Although at advanced stages the forms might be used for self-defense, early learning of the forms is rather more for health, centerness, fluidity and understanding the principles of the ancient Chinese classics.

The class will meet on Mondays, from 6:30-7:45 p.m., South Lounge, RCC.

Five College students will be graded on a pass/fail basis and must negotiate credits with the instructor before finalizing them with their registrars.

TAI CHI CHUAN (CONTINUING)

Paul Gallagher

The continuing class will meet on Mondays from 8:00-9:15 p.m., South Lounge, RCC.

Five College students will be graded on a pass/fail basis and must negotiate credits with the instructor before finalizing them with their registrars.

PHYSICAL FITNESS CLASS (THE EXERCISITS)

Renate Rikkers and Andrea Wright

This course is designed to promote good health, flexibility, cardiovascular efficiency and a sense of well being. Individual exercise programs and appropriate diet are considered on an individual basis.

Class will meet on Tuesdays and Fridays, 12:15-1:15 p.m., in the Robert Crown Center. A non-credit course, free to Hampshire students but fee funded for staff and faculty.

FENCING

Will Weber

Classes for both beginners and experienced fencers. No experience necessary; beginners are especially welcome. Basic equipment is provided.

A non-credit course that meets two evenings per week in the Robert Crown Center.

TOUCH FOOTBALL AND OTHER FIELD SPORTS

Kate Stanne

This course will cover the skills of touch football and strategies of the game. We will also experiment with the various rules that touch football may be played under, in an effort to find what rules best suit our class. The main emphasis will be to play football and have fun. Other field sports (such as speed-ball, flickerball, and speed-a-way) will be played

occasionally to familiarize people with more uncommon field sports.

The class will meet on Tuesdays and Thursdays from 1:30-3:30 p.m. This is a non-credit course. The first meeting will take place in the gym, Robert Crown Center.

WOMEN'S FIELD HOCKEY

Kate Stanne

The purpose of this class will be to get women involved in playing and improving their field hockey. Beginners to experienced players are welcome. We will work on drills, playing the game (with some conditioning built in). For those people interested, we will also be scheduling games with other schools.

This is a non-credit course. No registration is required. Classes will meet on Mondays and Thursdays from 4-6 p.m. The first meeting will take place in the gym, Robert Crown Center.

NEW GAMES AND GAMES INVENTING

Kate Stanne

New Games is a catch-all title used in recent years to allude to an alternative approach to the nature of interpersonal relations in games and sport. By redirecting the attention of the contestants away from winning and from team identification, New Games hope to uncover the oft-neglected virtues of play and inventiveness. Many New Games are quite old; some are highly competitive; some are physically active, some sedentary. At their best, they bring to the spontaneity and joy in the act of play from their contestants, substituting a group "high" for the traditional victor's high at the cost of the opponent's "low".

We will be creating games as well as playing others and we may change or alter the rules of these games to suit the needs of the class. We will explore the philosophy behind play, games, sports, and athletics, to gain an understanding of how New Games (as well as traditional ones), fit into these various categories, but never so much as to turn it into a classroom thing.

The class meets Fridays from 1-4:00 p.m. for as long as people are interested. There is no limit to the enrollment.

KAYAK ROLLING AND POOL KAYAKING

Carol Fisher

No experience required. Learn how to eskimo roll (tip a kayak right side up after capsizing), strokes, maneuver in slalom gates, watch yourself paddle on the Hoby paddleboard, play kayak polo, etc. Class will meet Wednesdays from 3-4 p.m. in the pool, Robert Crown Center.

BEGINNING WHITWATER RIVER KAYAKING

Carol Fisher

No experience required except swimming ability. Learn the fundamentals of kayaking -- strokes, rescue maneuvering -- as well as basic whitewater skills -- eddy turns, ferrying, braking, river reading, rescue, swimming, surfing, safety, equipment, eskimo roll. The class meets twice a week, once on Thursday in the pool from 10:30-12:00 and again on Tuesday afternoons from 1-6 p.m. for a river trip. There is a limit of five students (there is a waiting list) and the class will end on November 10. Sign up in the Robert Crown Center.

Five College students must have instructor permission.

ADVANCED WHITWATER KAYAKING

Carol Fisher

This class is for people with whitewater and eskimo roll experience. You will learn and perfect advanced whitewater techniques on class III water. River trip will meet on Thursdays until November 16. After Thanksgiving vacation, class will meet in the pool from 1-3 p.m. Permission required from instructor. Meet at the Robert Crown Center.

Five College students will be graded pass/fail and must have permission of the instructor before finalizing them with their registrars.

WILDERNESS BRIDGE BUILDING

Derrick Elmes, Carol Fisher, Jay Evans

This class will design and build a variety of natural log bridges. Both simple and elaborate bridges will be built over the 12-15 Bubble Brook crossings on the Outdoor Fitness Trail. The Outdoor Fitness Trail is a 1.6 mile trail through the Hampshire woods with 20 exercise stations. It is also a cross-country ski trail, nature trail, and walking trail. Bridges are badly needed to prevent further stream bank erosion. Bridges would also provide a much smoother running and cross country ski trail.

Participants will learn how to construct wilderness bridges and safe use of the tools, such as the chainsaw and adze. Prerequisites: willingness to work.

Class meets Tuesday, 10:30-11:30 a.m. (organizational meeting tentative time). Work meetings to be arranged -- at least three hours/week.

Reference text: *Trail Construction and Maintenance*, Appalachian Mountain Club, 1976.

OUTDOORS PROGRAM

The Outdoors Program is a voluntary, co-ed alternative to compulsory physical education and intercollegiate team sports.

In the first six years of its existence, it has offered students extensive opportunities to learn mountaineering, rock climbing, and other outdoor skills, with an orientation toward student and staff-initiated expeditions and trips. Equipment and arrangements for cross-country skiing, snowshoeing, backpacking, biking, canoeing, winter camping and orienteering have been made continuously available.

The Hampshire Outdoors Program tries to give special emphasis to integrating outdoor and physical learning experiences with the rest of college and life. Programmatically that means the Outdoors Program collaborating with Hampshire faculty, staff, and students in ongoing courses (a possible example: a canoe trip down the Connecticut River as a part of "The American Literary Landscape") and expanding Outdoors Program courses to include interdisciplinary offerings (like "Literature of Great Expeditions" course).

"Fusion of body and intellect" has long been a goal of the O.P. This year the Program will continue to offer body potential work in the form of martial arts and body awareness alongside of outdoor skills courses.

A third goal, to facilitate a personal experiencing of nature, will terminate into opportunities for local natural history observations, as well as continuing to make hiking, biking, camping, cross-country skiing, snowshoeing, canoeing and expeditioning available to interested students.

valuable in bringing together students with interests in all aspects of our environment.

All are welcome to the seminars which take place Monday evenings, 7:30 p.m. in the KIVA. People interested in presenting work should contact ESAP.

WRITING AND READING IMPROVEMENT PROGRAM/ WRITING AND READING LABORATORY

Office assistance in the areas of writing, reading and study skills. Help may be either individualized or group, short- or long-term, and is based entirely on the needs of the individual student. Some students come once for help with some specific aspect of paper writing; others come several times for work on a specific project, while still others come on a regular basis for assistance in basic skills, etc. Similarly, work with reading (comprehension, retention, speed) and study skills may be short- or long-term, and a program is constructed according to the needs of the individual student.

The materials in the lab provide students the opportunity to work at their own pace on self-guided materials in the areas of grammar, spelling, composition, reading comprehension and retention, study skills, etc. For students who do not wish to work on a long-term basis, there are also resource materials available to answer specific questions in these areas. For students who wish to work on their reading speed, there are reading pacing machines and varied exercises available. The lab is also equipped with a small paperback and magazine library. It will function as a drop-in center so that students may freely browse through materials or use a given program on a routine basis.

Contact Deborah Seal, Director of the Program, for appointment and additional information. Her office is located in Dekin House (D104) and her extension is 531.

In addition, this year the following course will be offered by Georgia Sassen:

Supportive Editing

Students who are having trouble with writing can often improve their skills by getting something—anything—down on paper and working on it. The process of making what comes out the first time into readable, logical prose is really an editing process applied to one's own work. This course will bring together students who want to improve their writing, as well as those who are good writers and editors but want to learn to edit in a new way which includes teaching and supporting. For those with some editing experience, this will be a chance to sharpen and broaden those skills. The editors will look into what went wrong in a sentence, a paragraph, or an argument and learn/teach to correct and improve. The process of "fixing" will be left to the writer him/herself as much as possible.

Evaluation of our progress as a group will include the progress made by the editors as well as the improvement in the skills of the writers. Writing assignments will include both work that students are preparing for other courses or examinations and special exercises.

If you would like further information on the above course, contact Georgia Sassen in the Options Office.

Library Work: The Reference Librarians and other members of the Library Center staff give assistance to individual students and work with the faculty to develop special instructional practice on such topics as research problems as location of sources and notetaking. Contact Susan Dayall.

2. University, Comparative Literature 397A, **IMAGES OF THE FEMININE IN INDIAN LITERATURE**. (also Asian Studies 397A and Women's Studies 397A) Conceptions of the feminine in Indian culture as articulated in Indian literature. Ancient and modern texts (in translation) from various languages and genres provide insights—both sociological and other points of view—into the complex and evolving role of both unique and universal images of the feminine and the role of women in Indian society. Topics include: (1) the central notions of the feminine as Power and Nature seen in relation to the polarities of Hindu-Culture, Self-Other, male-female, benevolence, power-authority, and their function in modern society; (2) the religious role of the feminine in mystical poetry; (3) the feminine seen as the true self both by Indian women and by men like Mahatma Gandhi. **FIRST SEMESTER.**

3. University, Comparative Literature 106 (Chinese 106), **ASIA THROUGH LITERATURE: CHINA, JAPAN, INDIA**. Introduction to the civilizations of China, Japan, and India through short masterworks and film. How Asian world views, aesthetic experiences and religious values, and ideas of self and society contrast with those of the West. TuTh 2:30-4:00, with Professors Lucian Miller and William Neff. **FIRST SEMESTER.**

4. University, Asian Studies 197B, **ELEMENTARY SANSKRIT II**. Continuation of Sanskrit I. **SECOND SEMESTER.**

FACULTY SCHOOL OF HUMANITIES AND ARTS

Josephine Abady, assistant professor of theatre arts, holds a B.S. in speech and theatre from Syracuse University and an M.F.A. in directing from Florida State University. She has taught theatre arts at Florida State and at several New England schools, most recently at Bennington College in Vermont.

Sally Allen, assistant professor of cultural history, received her B.A. and M.A. at the University of Manitoba and did her Ph.D. work in renaissance history at the University of Toronto. Her teaching interests include the areas of art history, feminist writing interests include the human life cycle, the psychodynamics of the family, psychoanalysis and psychotherapy, and self-reflective disciplines of personal growth. She has taught at Amherst College from which she has a B.A. Her clinical training and Ph.D. are in psychology and psychotherapy, and she maintains a small private therapy practice in Northampton.

William Arnold, visiting associate professor of photography, holds a B.A. from San Francisco State College and an M.F.A. from the San Francisco Art Institute. He has taught photography at various colleges and was until recently chairman of the photography department at the Pratt Institute in New York.

John Boettiger, associate professor of human development, joined the Hampshire planning staff in 1967. His principal teaching and writing interests include the human life cycle, the psychodynamics of the family, psychoanalysis and psychotherapy, and self-reflective disciplines of personal growth. He has taught at Amherst College from which he has a B.A. His clinical training and Ph.D. are in psychology and psychotherapy, and he maintains a small private therapy practice in Northampton.

Raymond Kenyon Bradt, assistant professor of philosophy, although mainly a scholar of the western philosophical tradition, is also outstanding in Eastern Studies scholarship. He holds a B.A. in philosophy and an M.A. in theology from Notre Dame and a Ph.D. in philosophical theology from Yale University where he is currently a candidate for a Ph.D.

Berry Goldenshohn, dean of Humanities and Arts and associate professor of literature, holds a B.A. in philosophy from Oberlin College and an M.A. in literature from the University of Wisconsin. His poetry has been widely published in collections, periodicals, and anthologies. He has taught creative writing at several colleges and universities, most recently at Goddard College where he was also director of the graduate program.

Graham Gordon, assistant professor of human development, earned his A.B. in mathematics at Southwestern College in Memphis and an M.Div. at the Louisville Presbyterian Seminary. He was awarded a Fielding Walker Fellowship in doctrinal theology for study at the New College of the University of Edinburgh, Scotland. He is also co-master of Dekin House.

Linda Gordon, assistant professor of human development, holds an A.B. in psychology from Adelphi University. Prior to coming to Hampshire, she was associated with South Hampton College on Long Island, where she worked with experimental education groups. She shares the mastership of Dekin House with Graham Gordon.

Van R. Helgeson, Jr., dean of admissions and associate professor of American Studies, was associate director of admissions at Amherst College from 1956 to 1969. His special interests include teacher training and the production of new history materials for secondary schools. His B.A. is from Rutgers University and his Ph.D. from the University of Pennsylvania.

Arthur Honner, professor of design, was formerly chairman of the design department of the Massachusetts College of Art. He holds a B.F.A. and M.F.A. from Yale University and a certificate from Cooper Union in New York City. His sculpture and design work have been widely exhibited and he has served as graphic design consultant for the Boston Society of Architects and the Boston Architectural Center.

Clayton Hubbs, assistant professor of literature, is interested in modern drama, twentieth-century Anglo-American literature, and eighteenth-century English literature. He received a B.S. in journalism from the University of Missouri at Columbia and a Ph.D. from the University of Washington.

Joanna Hubbs, assistant professor of history, received a B.A. from the University of Missouri and a Ph.D. in Russian history from the University of Washington. She is fluent in French, German, Polish, Russian, and Italian.

Eleanor Huston, visiting assistant professor of dance, has a master's degree in dance from Smith College where she has taught modern dance and gymnastics. She has been associated with the Five College Moving Company as a performer and choreographer. She has also served on the board of directors of the Dance Circle of Boston.

Thomas Joslin, visiting assistant professor of film, holds a B.A. in photography from the University of New Hampshire and an M.F.A. in filmmaking from the Rhode Island School of Design. He has twice won awards from the National Endowment for the Arts for his work in film education.

Norton Juster, professor of design, is a practicing architect, designer, and writer whose books include *The Phantom Tollbooth*, a children's fantasy, and *The Dot and the Line*, a mathematical fable made into an Academy Award-winning animated film. His B.A. is from the University of Pennsylvania, and he studied at the University of Liverpool on a Fulbright scholarship.

M. Wayne Kramer, assistant professor of theatre arts, comes to Hampshire with fifteen years experience in theatre arts—training, including eleven years in the production of black drama and original scripts. He has also served as a design consultant in innovative dramatic modes for theatre. He holds a B.F.A. from the University of Texas and an M.F.A. from the University of Oklahoma, both in drama.

Louise Brown Kennedy, assistant professor of literature, is interested mainly in the Renaissance and the seventeenth century with particular emphasis on Elizabethan and Jacobean drama, Shakespeare, the English novel, and Milton. She received her B.A. from Duke University and an M.A. from Cornell where she is a candidate for a Ph.D.

Sara Lemon, visiting assistant professor of humanities, received her Ph.D. in comparative literature from the University of Wisconsin. She presently holds a position as assistant professor of German at the University of Massachusetts. She is a member of the editorial boards of *New German Critique* and the *Massachusetts Review*. Her areas of interest include Marxism, feminism, and literary theory.

Bill Lewis, assistant professor of humanities, holds a B.A. from Newham College, Cambridge, England, and is presently pursuing a Ph.D. at Cambridge University. She has been very active in the Women's Liberation Movement in Britain and France. Ms. Lewis will teach courses in literature and cultural history at Hampshire.

Jarvis Livingston, professor of film studies, has produced several award-winning films and has exhibited at the Museum of Modern Art, George Eastman House, and other museums. He has taught at the University of Minnesota and State University College at New Paltz, New York.

Richard C. Lyon, professor of English and American Studies, was chairman of the American Studies curriculum at the University of North Carolina at Chapel Hill and Hampshire's first Dean of the College. He holds a Ph.D. from the University of Minnesota and is editor of *Santayana on America*. He holds a joint appointment with the School of Language and Communication.

Robert Marques, associate professor of Hispanic-American literature, has worked for the World University Service in Peru and Venezuela, and served as area coordinator of the migrant education program at Middlesex County in Massachusetts, and published translations of Latin American poetry. He holds a B.A. from Brandeis and a Ph.D. from Harvard.

Elaine Mayes, associate professor of film studies, has a B.A. in art from Stanford. She did graduate study in painting and photography at the University of Minnesota. Her photographs have appeared in many exhibitions and publications. Professor Mayes will be on leave during the Fall Term.

Francis McClellan, assistant professor of dance, received a B.S. in dance from the Juilliard School of Music and an M.Ed. from the University of Massachusetts. She was a member of the Joan Kerr Dance Company and the Anna Sokolow Dance Company; she has also assisted Jose Limon. She is a certified teacher of Labanotation and Effort/Shape Movement Analysis. She has reconstructed several works from labanotation scores. In addition to being a dancer and choreographer, Francis has studied sensory awareness with Charlotte Selver.

Randall McClellan, associate professor of music, received his B.S. and M.M. from the University of Cincinnati and his Ph.D. from the Eastman School of Music. He has taught music theory and composition at West Chester State College, Pa., where he was also director of the electronic music studio. An active composer-performer of orchestral, chamber, choral, and electronic music, he also enjoys singing in the style of North India. He is an originator of "sound awareness training" about which he has written a book, *The Soundless Sound*. His current studies include sensory awareness with Charlotte Selver and the music of non-western cultures. His music is published by Western International Music and by Seasaw Music Press, and his electronic music is available on Opus One records. Professor McClellan is founder and director of the New Arts Foundation.

Robert Meagher, associate professor of philosophy of religion, has a B.A. from the University of Notre Dame and an M.A. from Chicago. His publications include *Personalities and Powers*, *Techniques*, *Toothing Stones: Rethinking the Political*, and *Cave Notes*. He has taught at the University of Notre Dame and at Indiana University.

Joan Marley Murray, assistant professor of art, holds a B.A. from Hampshire College and an M.A. in painting and color theory from Goddard College. Her work has been exhibited in group shows at Hampshire and the University of Connecticut and in a one-person show at Goddard. She has also served as guest critic and lecturer at a number of New England colleges.

Mina Payne, visiting assistant professor in human development, earned her B.A. from the University of Connecticut and graduated from Sarah Lawrence College. She is author of *All the Way Long*, a collection of nursery rhymes and poems for children, published by Athenaeum, and has conducted writing workshops for all age groups.

Paul Pope, professor of design, holds a B.Arch. degree from North Carolina State College at Raleigh and has been design and construction critic for the Pratt Institute in New York City. He has been engaged in private practice since 1962.

David Roberts, associate professor of literature and director of the Outdoors Program, holds a B.A. from Harvard University and a Ph.D. from the University of Denver. He is the author of *The Mountain of Mr. Karg*, a book about mountain climbing, and *Deborah: A Wilderness Narrative*.

Andrew Salkey, associate professor of writing, has published widely in the fields of fiction, non-fiction, and poetry. A Jamaican national, Mr. Salkey has also worked as a broadcaster, journalist, teacher, and lecturer. He received his education at St. George's College and Murrell College in Jamaica and the University of London.

David E. Smith, professor of English, holds a B.A. from Middlebury College and a Ph.D. from the University of Minnesota. He has taught at Indiana University, and his interests include colonial American writing, nineteenth-century American literature, and American intellectual and religious history. Professor Smith will be on leave during the Fall Term.

Francis D. Smith, professor of humanities and arts; a Harvard graduate, he has taught in high schools and colleges, directed federal community relations programs for Massachusetts, and has published as a sociologist, playwright, and novelist.

Roy Superior, associate professor of art, earned his B.F.A. at the Pratt Institute in New York and his M.F.A. at Yale University. He has also studied at the Instituto Allende in Mexico. He has had several years of experience in teaching drawing, painting, and printmaking, and he exhibited his work at a number of northeastern colleges and museums.

Burgess Terry, assistant professor of literature, has taught at Southern University in Baton Rouge; Johnson Smith University in Charlotte, North Carolina; Grambling College in Louisiana; and at St. Augustine's College in Raleigh, North Carolina. He has a B.A. from Howard University and a Ph.D. from the University of Massachusetts.

William (Vishnu) Vach, associate professor of music, attended the Detroit Institute of Musical Art of the University of Detroit and the University of Massachusetts from which he earned a B.A. in ethnomusicology. He has gained a wide reputation for his work in Afro-American music and ethnomusicology. At Hampshire, he is directly involved in the Residential Learning Center for the Arts.

SCHOOL OF LANGUAGE AND COMMUNICATION

Ellen Ward Cooney, assistant professor of psychology, holds a B.A. from Radcliffe College and an Ed.D. in developmental psychology from the Harvard Graduate School of Education. She has worked as a pre-doctoral intern in child psychology at the Judge Baker Guidance Center in Boston. Her interests are in the developmental theory, social and ego development, and applications of social-cognitive-developmental theory to clinical and educational practice.

Mark Feinstein, assistant professor of language studies, has a Ph.D. in linguistics from the City University of New York. Among his special interests are phonological theory, bilingualism, implications of sociolinguistic research for a general theory of language, and neurolinguistics (aphasiology).



FIVE COLLEGE APPOINTMENTS

JOHN J. CONWAY, Professor of Canadian History (at the University of Massachusetts-Amherst, under the Five College Program).

1. University, History 297C, **CANADIAN POLITICAL THEORY IN HISTORICAL PERSPECTIVE**. The development of Canadian political theory since 1763. Particular emphasis on concepts of the corporate and Rousseauian views of politics and society which have prevailed in the United States since the American Revolution and before. Focus on four topics: (1) contemporary Canada and its problems; (2) the emergence of two differing political philosophies and systems: the American and the Canadian; (3) the origins of Quebec separatism; and (4) a case study in Canadian corporatist political culture. **FIRST SEMESTER.**

2. University, History 291, **20TH C. CANADA**. Canada's emergence from colonial status in 1900 to dominion status in 1926 to independence within the British Commonwealth of Nations in 1931. Examination of Canada's participation in the two world wars and the effects of that participation on the country. Particular concern for the inherent conflict between the province of Quebec and much of the rest of the country, the rise of the separatist movement in Quebec, the victory in that province of the Parti Quebecois and the possible disintegration of the country with the effect such disintegration might have on the political geography of North America. **SECOND SEMESTER.**

J. MICHAEL RHODES, Associate Professor of Analytical Geochemistry (at the University of Massachusetts-Amherst, under the Five College Program).

1. University, Geology 590B, **ANALYTICAL GEOCHEMISTRY**. Study of analytical techniques. Emphasis on the capabilities of various techniques, problems related to each, and the methods and problems of data analysis. Prerequisites: mineralogy, petrology, and elementary college chemistry; or permission of the instructor. **FIRST SEMESTER.**

INDIRA SHEETAL, Assistant Professor of South Asian Studies (at Amherst College, under the Five College Program).

1. University, Asian Studies 197A, **ELEMENTARY SANSKRIT I**. Introduction to the classical language of India, an Indo-European language closely related to Latin and Greek, and possessing texts including the *Iliad* and the *Upanishads*. Sanskrit is the ancestor of many modern Indian languages and the language of the major religious and secular literature of Hinduism and Indian Buddhism (Upanishad, Bhagavad-Gita, Kavya). Essential for students of Indian culture also of interest to general linguists and Indo-Europeanists. Grammar, reading, and writing. Note that the course is given in two semesters. Elementary Sanskrit II (spring) being a continuation of Elementary Sanskrit I. **FIRST SEMESTER.**

Nancy Friberg, assistant professor of linguistics, holds an A.B. from the University of California, Berkeley, and an M.A. and Ph.D. from the University of California, San Diego. She is certified as an expressive interpreter of American Sign Language and has served as an interpreter at the National Theater of the Deaf Summer School in Hartford, Connecticut. Ms. Friberg will be on leave for the academic year 1978-79.

James Paul Cox, assistant professor of linguistics, holds a B.A. (philosophy) from the University of California at Santa Barbara and an M.A. and Ph.D. (linguistics) from Stanford University. Within linguistics his interests include syntactic and semantic theory, pragmatics, theories of grammar, linguistics and literature, and the structure of English, as well as sociolinguistics and variation theory. Within philosophy, his interests include epistemology, the theory of perception, intentionality, philosophical logic, and the philosophy of language, as well as the history of analytic philosophy.

Allen Hanson, associate professor of computer science, has a B.S. from Clarkson College of Technology, and an M.S. and Ph.D. in electrical engineering from Cornell University. His main research interests are in non-numeric programming, artificial intelligence, and pattern recognition. At the University of Minnesota he developed courses in computing fundamentals, artificial intelligence, and higher level languages. Mr. Hanson will be on leave for the academic year 1978-79.

John Hornell, visiting assistant professor of psychology, received a B.S. from Tufts University and a Ph.D. from the University of Illinois, Champaign-Urbana. His main interests are in social and ecological psychology.

David Israel, visiting assistant professor of philosophy, earned a B.A. from Harvard and an M.A. in linguistics from Brown University. He is currently a Ph.D. candidate in philosophy at the University of California at Berkeley. He has taught at Tufts University, the University of California at Berkeley, and the University of Connecticut. He is interested in the philosophy of language, epistemology, the philosophy of science, the philosophy of mathematics, and twentieth century Marxism.

Judy Kagi, visiting assistant professor of linguistics, has a B.A. in anthropology and an M.A. in linguistics from Brown University. She is currently a Ph.D. candidate in linguistics at MIT. Her research interests include the linguistics of American Sign Language, Slovenian phonology and bilingualism, other sign languages (Washo, Plains Indian, sign languages in India), and anthropological linguistics.

David Kerr, assistant professor of mass communications, has a B.A. from Miami University in Ohio, an M.A. from Vanderbilt University, and a Ph.D. from Indiana University. His teaching experience includes courses in communication research and journalism.

Deborah Knapp, assistant professor of psychology, earned her B.A. in philosophy and psychology at Barnard College and her Ph.D. at the University of California at San Diego. She does research on child language and the development of interpretive and problem-solving abilities. Her teaching interests include cognitive psychology, theory of education, and philosophical problems in psychology.

Richard Lyon holds a joint appointment with the School of Humanities and Arts.

William Marsh, associate professor of mathematics, holds his B.A., M.A., and Ph.D. from Dartmouth, and his special interests include the foundations of mathematics and linguistics.

James Miller, assistant professor of communications, holds a B.A. from Western Illinois University, an M.A. from the University of Denver, and completed his Ph.D. in communication research at The Annenberg School of Communications of the University of Pennsylvania. His teaching interests in communication research and government-media relations.

Robert Moll, visiting assistant professor of computer science, holds a B.S. and M.S. in mathematics from Carnegie-Mellon University and a Ph.D. in mathematics from MIT. He is on leave from the Computer and Information Science Department of the University of Massachusetts. His research interests include automatic programming, the analysis of algorithms, and formal models of natural language learning.

Richard Miller is director of educational technology and assistant professor of communication technology. He has been director of instructional communications at the State University of New York Upstate Medical Center at Syracuse. He holds a B.A. from Amherst College and a Ph.D. from Syracuse University.

Angel Nieto, faculty associate in Spanish, was educated in Spain and in the United States. He has been the director of the Spanish department of the Berlitz School of Languages and coordinator of admissions at the University Without Walls at the University of Massachusetts.

Raymond Pelletier, visiting assistant professor of French, has a B.A. from Providence College, an M.A. from Michigan State University, and a Ph.D. from the University of Massachusetts.

Michael Radetsky, assistant professor of philosophy, received a B.A. from Cornell University and an M.A. from the University of California at Berkeley where he was a Woodrow Wilson Fellow. He is working on his doctorate at Berkeley. His special interests are philosophy of action and philosophy of psychology. Mr. Radetsky will be on leave for the academic year 1978-79.

Stanley Stanski, assistant professor of television, has an M.A. from Michigan State University in educational and public television. He has been a television producer-director with the Armed Forces radio and television service in Korea. He holds a joint appointment with the Library where he serves as television producer. For the academic year 1978-79 Mr. Stanski will be on leave.

Neil Stillings, associate professor of psychology, has a B.A. from Amherst and a Ph.D. in psychology from the University of California at Berkeley. His research interests include the psychology of language. He also has a substantial interest in other areas of cognition, such as memory, attention, visual and auditory perception, intelligence, and mental representation. Mr. Stillings is Dean of the School of Language and Communication this year.

Janet Tallman, assistant professor of anthropology, received a B.A. from the University of Minnesota and is completing her doctorate at the University of California at Berkeley. She conducted field work in Yugoslavia on social interaction patterns in rural and urban Serbia and worked in an editorial capacity for the *Kroeber Anthropological Society Papers*.

Robert Tinker, adjunct associate professor of physics and computer science, holds a B.A. from Swarthmore College, an M.S. from Stanford University, and a Ph.D. from the Massachusetts Institute of Technology. He is currently engaged in an NSF funded research project whose main focus is on the use of computer technology in education.

Christopher Witherspoon, assistant professor of philosophy, is completing his Ph.D. at the University of California at Berkeley where he was a Danforth Graduate Fellow and a teaching assistant. His thesis and a book in progress are in the philosophy of perception. His other research areas include philosophical psychology, the philosophy of language, and the philosophy of perception. He has taught at Knoxville College as a Woodrow Wilson Teaching Intern. Host of his current interdisciplinary work is in cognitive psychology and artificial intelligence.

SCHOOL OF NATURAL SCIENCE

Mary Beth Averill, assistant professor of botany, received her Ph.D. from the University of Oregon, with a study of the microorganisms that inhabit the inside of Douglas fir needles. She has taught at the University of Oregon, the University of Hawaii, and the University of California Polytechnic State University, and has a major interest in micro-ecology, a field which she pioneered. Mary Beth will be on sabbatical Fall Term 1978.

Herbert Bernstein, associate professor of physics, received his B.A. from Columbia, his M.S. and Ph.D. from the University of California, San Diego, and did post-doctoral work at the Center for Advanced Studies in Physics at the University of Technology in Haifa, Israel, and the Institut voor Theoretische Fysica in Belgium. He has consulted for numerous organizations including the World Bank, AAS, NSF, and the Hudson Institute. He was recently Technical Director for Volunteers in Technical Assistance in Washington. His teaching and research interests include science and technology policy, appropriate technology, alternative energy systems, economic development, and theoretical, practical and applied physics.

Merle Bruno, associate professor of biology, holds a B.A. from Syracuse University and a Ph.D. from Harvard. She is involved in sensory neurophysiology (especially vision) and elementary school science teaching. Her work in neurophysiology has been supported by grants from M.I.T. and the Grass Foundation, and she is the author of several teacher's guides for elementary science studies.

Raymond P. Copping, associate professor of biology, worked at the Woods Hole Oceanographic Institute, the Smithsonian Astrophysical Observatory in Cambridge, the U.S. Fish and Wildlife Service, and the Beebe Tropical Research Station in the Virgin Islands. He holds a B.S. (biology) from Harvard, an M.S. (biology), and a Ph.D. (biology) from Harvard. He has taught at the University of Massachusetts. His varied interests include philosophy, forest management, animal behavior, New England birds, monkeys in the Caribbean, African ecology, biosocial human adaptation (anthropology/ecology) and taxonomy theory (biological progress). Ray has been a past New England sled dog racing champion and has originated his own breed of sled dogs.

John Foster, professor of biology, previously taught biochemistry at the Boston University School of Medicine and was a director of the Science Curriculum Improvement Program for the NSF. He holds a B.S. in chemistry from Harvard, an M.S. in chemistry from the University of Michigan, and a Ph.D. in chemistry from the University of Michigan. He is interested in biochemistry and in human biology, and is interested in amateur electronics, ecology and field biology, and white water canoeing.

Nancy Giddard, associate professor of biology, was previously chairperson of the department of natural science and mathematics at West Virginia State College. She obtained her B.S. from Ohio State University. Involved in teaching courses on human reproduction, health care for women and endocrinology, she is also interested in field ecology, human and comparative anatomy, parasitology, marine biology and tropical (Caribbean) ecology.

Stanley Goldberg, associate professor of history of science, taught at Antioch College, was a senior lecturer at the University of Zambia, and a post-doctoral fellow at the Smithsonian Institution. His Ph.D. is from Harvard. His teaching and research interests include physics, history of science (particularly early 20th century physics), science and public policy, and photography.

Courtney Gordon, associate professor of astronomy, holds a Ph.D. from the University of Michigan. He has worked at the Royal Greenwich Observatory in England, the Harvard College Observatory, the Arecibo Observatory, and the Kitt Peak National Radio Astronomy Observatory. In addition to astronomy, Courtney is interested in relativity, cosmology, extraterrestrial communication, codes and ciphers and animal communication (dolphins and chimps). He is a member of the Five College Astronomy Department, and this year is Associate Dean of Advancing at Hampshire.

Kurtis Gordon, associate professor of astronomy, received his B.S. in physics at Antioch College and his M.A. and Ph.D. from the University of Michigan. His interests include time (including the philosophy of time and space), relativity, extraterrestrial and animal communication, and cosmology. His research interests include astrophysics, cosmology, and matter and pulsars. He is a member of the Five College Astronomy Department.

Michael Gross, assistant professor of history of science, received his B.S. in chemistry from Brooklyn College and his Ph.D. in 19th century physiology from Princeton. Interests include the history of biology, the history of medicine, physiology and medical theory, embryology, and molecular biology; history of social and behavioral sciences; science and social thought; and modern European social and intellectual history.

Kenneth Hoffman, associate professor of mathematics, began his B.S. at Harvard, where he also served as a teaching fellow. He was chairman of the mathematics department at Tallade College during 1967-70. In addition to algebraic number theory and combinatorics, Ken's interests include education, American Indian, field botany and farming. Ken will be on sabbatical during Spring term 1979.

David G. Kelly, associate professor of mathematics, has taught at New College, Oberlin College, and Boston University. He holds a S.M. from M.I.T. and an A.M. from Dartmouth. He has, since 1971, directed the NSF supported Hampshire College Summer Studies in Mathematics, a high school mathematics program. His interests include analysis, the history of mathematics, recreational mathematics, and seventeen.

Allen S. Krass, associate professor of physics and science policy assessment, was educated at Cornell and Stanford, where he received his Ph.D. in theoretical physics. He previously taught at Princeton University, University of California at Santa Barbara and the University of Iowa, as well as the Open University in England. His interests include physics, science and public policy (particularly arms control) and the environment, where he has worked on flood control and nuclear energy. He coordinates the Environmental Studies and Public Policy Program at Hampshire.

Nancy Lowry, associate professor of chemistry, holds a Ph.D. from M.I.T. She has worked as a research associate at M.I.T. and Amherst College and has taught at Smith College and the Cooley-Dickinson School of Nursing. She has also coordinated a chemical analysis lab as part of the Mill River projects in Northampton. Her interests include stereochemistry and organic molecules, environmental chemistry, science for non-scientists, toxic substances, the basenon, and nature study.

Ralph Luttrell, visiting assistant professor of natural science and naturalist in the Outdoors Program, received his B.A. from Trinity College in biology and his M.D. from the University of Massachusetts, where he was concentrated in the theoretical foundations of environmental studies. He has taught at Antioch New England graduate school and has also worked with the Boston Museum of Science and the Living World Museum. Ralph's interests include natural literature and environmental ethics.

Ann Miller, professor of biology, has taught at the American University of Beirut and at Adelphi University. He has a Ph.D. from Stanford. His principal interests are applied microbiology (compostings, sewage treatment, fermentation) and social aspects of genetics (agriculture, genetic engineering, genetic counseling) as well as stress and disease. He is especially interested in working with students on independent study, tutorials, and small group projects. His research concerns organosol metabolism in yeasts and PTC tasting in humans.

Sandra Ormrod, assistant professor of microbiology, does research in biochemistry at the University of Massachusetts. In addition to teaching at Hampshire, she received her Ph.D. from the University of Massachusetts. Her research involves membrane

development, structure and function. In addition she is interested in microbiology from a public health standpoint in developing countries, research on the microbial contribution to energy production, the microbes that inhabit us, and cancer.

Janice Raymond, assistant professor of women's studies and medical ethics under the Five College Program, received her Ph.D. from Andover Newton Theological School and Boston College in religion and society. Before coming to Hampshire she taught at Boston College, the New School for Social Research, Andover Newton, and Oberlin College. She is interested in the future of women's healing, abortion, the sexual politics of mental health, and women's health care delivery.

John R. Reid Jr., assistant professor of geology, has pursued his lunar surface and earth's interior research at the Smithsonian Astrophysical Observatory, the Geochronology Laboratory at M.I.T., and the Massachusetts Polytechnic Institute, and Los Alamos National Labs. He received his Ph.D. from M.I.T. He previously taught in three high school physics programs. His professional interests center around volcanology as a means of understanding the chemical evolution of the earth and the use of volcanism as a source of geothermal power. John will be on sabbatical during the Fall Term, 1978.

Douglas S. Ringe, emeritus professor of pharmacology, received his M.D. from Yale University School of Medicine. He previously taught at the School of Medicine of the State University of New York at Buffalo (where he was Chairman from 1954-60) and Fairfield State Hospital. His special interests involve biophysics (applying mathematical methods to biological problems), natural history and the outdoors, especially hiking and hiking.

Ruth Rhoads, associate professor of the history of science, and master of Prescott House, received her B.A. from Tufts University, from Milwaukee-Duquesne College, and her M.A. and Ph.D. from Cornell, where she concentrated in the history of science. She taught at Kirkland College, where she also held the position of assistant dean of academic affairs. She is interested in, among other things, nineteenth century German biology, science and religion, and technology and society.

Paul Slater, visiting assistant professor in agriculture, received his B.S. and Masters in Resource Planning from the University of Massachusetts. He is currently a member of a subcommittee of the Governor's Commission on the Status of Women entitled "Women in Agriculture, Food Policy and Land Use Reform," and is an agricultural consultant to the Hampshire County Planner. Paul's interests cover the broad issues of land use and resources, particularly in New England.

Michael Sutherland, assistant professor of statistics, holds an intercollegiate appointment in Natural Science and Social Science. He has been a consultant with the Systems Management Corporation in Boston and has worked on problems involving applications of statistics to the social sciences. His Ph.D. is from Harvard. His interests include statistics, econometrics, parapsychology, machinery, automobiles, and people. Michael will be on sabbatical during A.Y. 1978-79.

Janet Van Blarcom, assistant professor of physics, received her B.S. from M.I.T., winning the Arthur Compton Prize in 1964, and her Ph.D. from the University of Colorado. She has taught at the University of Massachusetts, Smith College, and recently at the Joint Institute for Laboratory Astrophysics Atomic Collision Data Center at the University of Colorado, Boulder. Janet's interests include theoretical low energy particle physics with a strong interest in astrophysics, as well as waves, optics, mechanics and holography.

Charles Van Rosten, assistant professor of botany, received her B.A. from Skidmore and her Ph.D. from Boston University. Marine Program, Marine Biology Lab, Woods Hole. She most recently taught at Dalhousie University in Nova Scotia. Her research has been in the area of salt marsh and estuarine ecology, sediment-water interactions, nitrogen fixation and denitrification.

Arthur Weatling, dean of the School of Natural Science and professor of ecology, received his B.A. from Columbia and Science. He has been a consultant with the Systems Management Corporation in Boston and has worked on problems involving applications of statistics to the social sciences. His Ph.D. is from Harvard. His interests include statistics, econometrics, parapsychology, machinery, automobiles, and people. Michael will be on sabbatical during A.Y. 1978-79.

Lloyd Williams, assistant professor of chemistry, received his B.A. from Colgate and his Ph.D. from the University of Wisconsin, where he has also taught. Lloyd's interests areas include elucidating chemical phenomena by developing lecture demonstrations, atomic and molecular spectroscopy, and environmentally related research (especially industrial air and water pollution chemistry).

Albert Woodhill, assistant professor in biology, received his Ph.D. from the University of Washington. He has taught in the Peace Corps in Nigeria and has lectured at the University of Wisconsin. His research interests are centered on the physiological bases of behavior and on the visual system in humans and animals. He encourages students to participate in his research on visual thresholds. He is also interested in embryology, electronics for instrumentation, and alternative energy sources. Al will be on sabbatical during Fall Term 1978.

Ann M. Woodhill, assistant professor of biology, is especially interested in physiology and neurobiology, biochemistry and molecular biology, and biological corines. Her teaching experience includes mathematics in Nigeria as a Peace Corps volunteer, and Harvard University. She received her Ph.D. from the University of Washington.

5-College Astronomy Department Faculty:

Courtney and Kurtis Gordon (see above)

Thomas R. Dennis - assistant professor in astronomy at Mt. Holyoke College.

William A. Dent - associate professor of astronomy at the University of Massachusetts.

George Greenstein - assistant professor in astronomy at Amherst College.

Edward R. Harrison - professor of astronomy at the University of Massachusetts.

G. Richard Huguenin - professor of astronomy and physics at the University of Massachusetts.

William M. Irvine - chairman of 5-College Astronomy Department and professor of physics and astronomy at the University of Massachusetts.

Walter Seltzer - professor of astronomy at Smith College.

Richard White - assistant professor of astronomy at Smith College.

SCHOOL OF SOCIAL SCIENCE

Richard M. Alpert, associate dean of the college and assistant professor of political science, has served on the research staff of the Urban Institute in Washington, D.C. His B.A. is from Robert College and his Ph.D. from Harvard.

Caroline Bagelzofsky, assistant professor of political science, holds an A.B. from Cornell, studied Russian history at Harvard, and is working on a doctorate in political science from M.I.T. She is interested in political development in Southern Africa and other Third World areas. She has conducted research in Algeria, Cuba, and Peru, and has been a school teacher in Kenya and Honduras.

Aaron Barman, visiting assistant professor of history, received his B.A. from Hampshire College and an M.A. in Jewish Studies from Columbia University. He is currently a doctoral candidate in American history at Columbia.

Norma Breitbart, visiting assistant professor of geography, has an A.B. from Clark University, an M.A. from Rutgers, and a Ph.D. in geography from Clark University. Her teaching and research interests include the social geography of work; economic, social and political values as determinants of the built environment; social and spatial implications of alternative strategies for community development; and problems in providing urban housing, employment and social services.

Eva Brown, visiting assistant professor of psychology, has a B.A. from Cornell University and an M.A. and Ph.D. in clinical psychology from Columbia University. She is chief psychologist and director of training and research at the Holyoke-Chicopee Mental Health Center where she is involved in administrative, clinical, teaching, consulting and research functions.

Margaret Curullo, visiting assistant professor of sociology, has a B.A. from the University of Pennsylvania, a B.Phil. from Oxford University, and is presently a Ph.D. candidate at Brandeis University. Her particular areas of interest are the sociology of women and the family in America; political sociology; stratification; sociology of work and leisure; and European social theory.

Louise Furman, Dean of the School of Social Science and assistant professor of psychology, has worked in child guidance and mental hygiene clinics in Minnesota and California, and has taught psychology at Yale, Stanford, and San Francisco State College. She holds a B.A. and Ph.D. from the University of Minnesota.

Nancy Fitch, assistant professor of history, has a B.A. and M.A. from San Diego State University. She is completing her Ph.D. dissertation at the University of California, Los Angeles. Her teaching interests include European Social and Political History, 1500-1940 with emphasis on Early Modern European History, The Old Regime and the French Revolution, and Europe in the 19th Century; Women's History in a Comparative Perspective; Agrarian and Demographic History; and Quantitative History.

E. Oliver Fowlkes, assistant professor of law, received a B.A. from Southwestern College, Memphis, and a J.D. from Memphis State University School of Law. He has been engaged in a variety of legal projects involving civil liberties, welfare recipients, housing legislation, and mental hospitals. Professor Fowlkes will be on leave Spring Term 1979.

Penina M. Glazer, Dean of Faculty, and assistant professor of history, has a B.A. from Douglass College and a Ph.D. from Rutgers University where she held the Louis Biever Fellowship. Her special interests include American intellectual history with emphasis on radical left wing movements in the United States during the 1940's.

Leonard B. Glick, professor of anthropology, holds an M.D. from the University of Maryland School of Medicine and a Ph.D. from the University of Pennsylvania. Formerly an associate professor at the University of Wisconsin, he has done anthropological studies in St. Lucia, West Indies, for a public health program and a study of ethno-medicine and social organization in the New Guinea Highlands. Professor Glick will be on leave Fall Term 1978.

William Grahmann, assistant professor of education and Master of Greenwich House, has a B.A. from Cornell, an M.A. from Columbia, and a Ph.D. from Union Graduate School. He has been a Peace Corps teacher in Micronesia and an assistant dean of students at Columbia. His area of special interest is non-traditional alternatives in higher education.

Lloyd Hogan, associate professor of economics, has an M.A. from the University of Chicago and has done graduate work in public affairs at the State University of New York, Albany. He's editor of the *Review of Black Economy* and Assistant Director for Research and Senior Economist at the Black Economic Research Center. He is author of numerous articles and has taught at Amherst College and Harvard University.

Frank Holmquist, assistant professor of political science received his B.A. from Lawrence University, and his M.A. and Ph.D. from Indiana University. His interests are in the areas of comparative politics, political and administrative development, and American politics. Professor Holmquist will be on leave Fall Term 1978.

Gloria L. Joseph, professor of education, has a B.S. from New York University and a Ph.D. from Cornell University. At the University of Massachusetts where she was associate professor of education, she served as co-chairperson of the School's Committee to Combat Racism, and at Cornell she was assistant dean of students, director of the Committee on Special Educational Projects' counseling service, and associate professor in the African Studies and Research Center.

James Koplin, associate professor of psychology, received his B.A., M.A., and Ph.D. degrees from the University of Minnesota, and taught at Vanderbilt University. His special interests are psycholinguistics and cognitive psychology.

Joan B. Landes, assistant professor of political science, holds a B.A. from Cornell University and an M.A. and a Ph.D. from NYU, where she completed her doctorate in 1975. She was formerly an assistant professor of political science at Bucknell University. She is primarily engaged in teaching and research in the areas of political and social theory and women's studies, with additional interests in American politics.

Barbara Harrison Linden, associate professor of sociology, has a B.A. from Syracuse University and a Ph.D. from Columbia, where she also taught and served as architectural consultant for problems in college housing at the University. Her academic interests include urban blight and the sociology of education.

Loisler Menor, professor of law, has a B.A. and LL.B. from Stanford, served as law clerk to the Honorable Warren F. Burger, and has taught at various law schools. His special concerns include the limits of the legal process and the role and status of women in society.

Naureen Mahoney, assistant professor of psychology, received her B.A. from the University of California, Santa Cruz and her Ph.D. from Cornell University. Her special interests include social and personality development, sociology of the family and history of childhood and the family.

Leurie Nisimoff, assistant professor of economics, holds an S.B. from M.I.T. and an M. Phil. from Yale, where she is a doctoral candidate. She was a Woodrow Wilson Fellow at Yale and is finishing her dissertation with the aid of a Ford Foundation Fellowship in Women's Studies. Her interests include American economic history, women's studies, labor and public policy issues.

Hedwig Rose, assistant professor of education and coordinator of the Education Studies Program, has a B.A. from Cornell and an M.A. in education from Smith College where she concentrated in comparative education. She is presently a doctoral candidate at the University of Massachusetts. She was a supervisor of practice teaching at Smith College's Department of Education and Child Study and has worked with the Northampton public school system.

Stewart Shapiro, visiting assistant professor of political science, holds an A.B. and M.A. from SUNY at Binghamton and a Ph.D. from the University of Massachusetts. His fields of specialization are American government and public policy with particular interest in the areas of environmental policy, theories of stratification and educational policy; political theory; and international relations.

Miriam Slater, associate professor of history and Master of Dickinson House until 1974, received a Ph.D. from Princeton University where she held the first Woodrow Wilson Fellowship designed to allow a woman with children to attend graduate school half-time. Her undergraduate work was completed at Douglass College. Professor Slater will be on leave academic year 1978-79.

Michael Sutherland holds a joint appointment with the School of Natural Science. Professor Sutherland will be on leave academic year 1978-79.

Robert von der Lippe, associate professor of sociology, was Director of the National Institute of Mental Health graduate training program in the sociology of medicine and mental health at Brown University. He has also taught at Columbia University and at Amherst College. His B.A., M.A., and Ph.D. degrees are from Stanford University. Professor von der Lippe will be on leave Fall Term 1978.

Stanley Warner, associate professor of economics and Master of Dickinson House, holds a B.A. from Albion College, an M.A. from Michigan State, and a Ph.D. from Harvard. His research and teaching interests include American economic history, economic development, and industrial organization. He has taught previously at Santa Cruz and Bucknell.

Frederick S. Weaver, professor of economics and history, has a B.A. from the University of California at Berkeley and a Ph.D. from Cornell University. He has done research in Chile as a Foreign Area Fellow and has taught economics at Cornell and the University of Santa Cruz. His special interest is the historical study of economic development and underdevelopment.

Barbara Thynesson, associate professor of anthropology, received her B.A. from Harvard College and her Ph.D. at the University of California at Berkeley. She specializes in the anthropology of law and social organization, and has done field work in Peru and Sweden. She has also worked for the Department of Native Affairs in Papua, New Guinea.

FALL TERM 1978

CLASS SCHEDULE

SCHOOL OF HUMANITIES AND ARTS

COURSE	INSTRUCTOR	ENROLLMENT METHOD	LIMIT	TIME	PLACE
HA 101 Drawing 101	R. Superior	Open	None	TTh 1-230	ARB
*HA 105 Development of Humans	M. Ross	Open	None	TW 9-1030	PH D-1
HA 109 Graphic Design	P. Doherty	1st Come	16	TTh 10-12	ARB
HA 110 Film Workshop I	T. Joslin	Lottery	14	M 130-5	FPH ELH
HA 111 Design Response	W. Kramer	1st Come	15	TTh 1030-12	PAC
HA 113 Music of Bach	H. Mishkin	Open	None	MW 1030-12	MDB Class
HA 114/214 Writing	N. Payne	Instr Per	15	T 9-12	Kiva
HA 115/215 Studio Exp-Dance	F. McClellan/E. Huston	Beg-Lottery	20	TBA	
		Int-Lottery	20	TBA	
		Adv-Instr Per	20	MW 1-3	Dance Studio
HA 117/217 Voice for the Actor	E. Machlin	Instr Int	30	MTW/THF 4-6	MDB/Red Barn
HA 122 Painting Workshop	J. Murray	1st Come	15	W 130-430	ARB
*HA 125 Sense of Self	J. Greenberg	Instr Per	12	T 1-3	TBA
HA 126 Intro-Theatre Directing	J. Abady	Instr Per	10	TTh 1-3	EDH Div IV
HA 131/231a Poetry Writing Workshop	A. Salkey	Instr Per	16	T 130-3	EDH 15
HA 134 College Writing	F. Smith	Instr Per	20	MWF 830-930	FPH WLH
HA 136 Man-Made Environment	N. Juster/E. Pope	Lottery	15	MTh 930-12	CSC 3rd Fl
HA 137 Intro-Music Reading	S. Steele	Open	None	MWF 930-1030	MDB Class
HA 139 5 Southern Writers	L.B. Kennedy	1st Come	15	MW 1030-12	CSC 126
HA 141 Life Stories	CANCELLED				
HA 142 Design/Illusion	A. Hoener			TTh 130-3	ARB
HA 148 Lit of Caribbean	R. Marquez	Open	None	TTh 130-3	EDH 16
HA 150 Still Photo Workshop	W. Arnold				
HA 153/253 Afro-Am Chamber Ensemble	V. Wood	Auditions	20	TTh 1-3	MDB Hall
HA 156 Improv for Theatre	J. Abady	Instr Per	15	WF 10-12	PAC
HA 158 Sound Awareness I	R. McClellan	1st Come			
HA 162/262 Rehearsal & Performance	CANCELLED				
HA 163/263 Fiction Writing Workshop	A. Salkey	Instr Per	16	Th 130-3	EDH 15
HA 166 Experience of War	D. Roberts/D. Kerr	Open	None	MWF 1-2	FPH 108
HA 167 Way of Philosophy	R.K. Bradt	Open	None	TTh 1030-1230	FPH WLH
HA 169 Ideas of Order	CANCELLED				
HA 170 Linguistics/Literature	J. Gee	Instr Per	20	TTh 1030-12	FPH 106
HA 172/272 Hist Per-Afro-Am Music	V. Wood	Open	None	TTh 1030-12	MDB Class

ARB Arts Building
CSC Cole Science Center
EDH Early Dickinson Hall
FPH Franklin Patterson Hall
GCC Robert Green Center
MDB Music and Dance Building

LIB Harold F. Johnson Library
DLH Dickinson House
GN Greenwich House
NWH Neilson House
PH Prescott House
ELH East Lecture Hall

NWH Neilson House
DLH Dickinson House
GCC Robert Green Center
EDH Early Dickinson Hall
FPH Franklin Patterson Hall
MDB Music and Dance Building
CSC Cole Science Center
ARB Arts Building

See description for details

SCHOOL OF HUMANITIES AND ARTS

COURSE	INSTRUCTOR	ENROLLMENT METHOD	LIMIT	TIME	PLACE
HA 180 Dostoevsky	J. Hubbs	Open	None	TTh 130-3	Blair
HA 181/281 Here and Now	L. Gordon/G. Gordon	Instr Int	14	TTh 1030-12	DH Masters
HA 210 Film Workshop II	J. Liebling	Instr Per	12	T 130-5	Lib 3rd Fl
HA 211 Comparative Religion	R. Meagher/D. Hudson	Instr Int		M 1-3	FPH 107
HA 213 Effort/Shape	F. McClellan	Instr Int	15	MW 1030-12	Dance Studio
HA 220 Film/Photo Studies	J. Liebling	Open-Concentrators		W 1-5	Blair
HA 221 History-Spanish America	R. Marquez	Open	None	TTh 1030-12	EDH-16
HA 225 Photo Workshop II	W. Arnold		12	TBA	
HA 226 Time-Space Lab	A. Hoener	Instr Per	16	W 130-3	ARB
HA 228 Theology	R.K. Bradt	Open	None	W 2-5	FPH 103
HA 231b Poetry Writing Workshop	B. Goldensohn	Instr Per	15	MTh 1-230	CSC 126
HA 232 GIS-Elac Music Comp	R. McClellan	Instr Per		M 3-5	FPH 101
HA 236 Amer Lit Realism	R. Lyon	Open	None	TTh 1030-12	FPH 107
HA 237 D.H. Lawrence	C. Hubbs/R. Neill	Instr Per	None	TTh 130-3	FPH 104
HA 241 Myth	J. Hubbs/C. Hubbs	Open	None	TTh 1030-1230	Blair
HA 242 Intermid Directing	CANCELLED				
HA 244 Historical Knowledge	R. Lyon	Open	None	MWF 930-1030	FPH 107
HA 248 Int Scene Study	J. Abady	Instr Per	12	WF 1-3	EDH Div IV
HA 250 Sacred/Profane Love	F. Smith	Instr Per	20	TTh 830-930	FPH WLH
HA 251 N.Y. Film Festival	T. Joslin	Instr Per	6	See Course Description	
HA 254 Environ Design Studio	N. Juster/E. Pope	Instr Per	10	W 930-12	CSC 3rd Fl
HA 256 Sense & Spirit	R. Meagher	Open	None	TTh 9-1030	EDH 4
HA 257 Nitty-Gritty Drawing	R. Superior	Instr Per	15	T 3-6	ARB
HA 258 Plato & Augustine	R. Meagher	Lottery	16	TTh 1030-12	EDH 4
HA 259 Metaphysics I	R.K. Bradt	Open	None	W-2-5	FPH 103
HA 270 Electronic Music I	R. McClellan	Instr Int	8	MWF 1030-12	FPH 101
HA 271 Sound/Meaning-Poetry	J. Gee			TBA	
HA 277 Elizabethan/Jacobean	L.B. Kennedy	1st Come	30	TTh 1030-12	CSC 126
HA 280 Studio Art Critique	J. Murray	Instr Per	15	T 130-330/Th 130-3	ARB
HA 287 Musical Heritage-West	R. McClellan	Open	None	MW 1-3	MDB Class
HA 291 Portraits From Life	CANCELLED				
HA 299 U.S. History	V. Halsey	Open	None	MW 1030-12	EDH 16

COLLEGE WRITING

Supportive Editing	G. Sassen	Instr Int	10	W 1030-1230	PH A-1
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SCHOOL OF LANGUAGE AND COMMUNICATION

LC 111 Bilingualism	M. Feinstein	1st Come	20	TTh 1030-12	FPH 105
LC 143 Practical Problem Solving	D. Knapp/W. Marsh	Lottery	32	TTh 1-230	FPH 105
LC 165 Social Development	E. Cooney/M. Mahoney	1st Come	20	TTh 9-1030	FPH 103
LC 166 Experience of War	D. Kerr/D. Roberts	Open	None	MWF 1-2	FPH 108
LC 171 Language/Culture/Society	J. Kegl	1st Come	16	MW 1-2 +TBA	FPH 105
LC 172 Hobbs & Freud	D. Israel	1st Come	16	MW 9-1030	PH A-1
LC 177 Linguistics/Literature	J. Gee	Instr Per	20	TTh 1030-12	FPH 106
LC 182 TV & Truth	R. Muller	Lottery	12	TTh 830-1030	Lib 3rd Fl
LC 183 Mass Media & State	J. Miller	Instr Per	15	TTh 830-1030	FPH 107
LC 184 Artificial Intelligence	CANCELLED				
LC 187 Human Intelligence	CANCELLED				
LC 189 Thought & Mind	C. Witherspoon	Instr Per	16	MW 1030-12	FPH 107
LC 193 Computer Programming	R. Moll	1st Come	25	TTh 9-1030	FPH 104
LC 195 ASL	J. Kegl	1st Come	25	MW 3-5	FPH 106
LC 201 History of Press-U.S.	D. Kerr/J. Parnass	Open	None	MW 9-1030	FPH 108
LC 206 Strings/Trees/Languages	W. Marsh	Open	None	MTThF 12-1	FPH 106
LC 216 Communications-Life	J. Miller	Instr Per	25	TTh 1-3	FPH 107
LC 223 Piaget	E. Cooney	1st Come	16	TTh 130-3	FPH 103
LC 226 Theory of Language	M. Feinstein, et al	1st Come	15	MWTh 9-1030	FPH 105
LC 228 Conversation Analysis	J. Tallman	1st Come	20	TTh 1030-12	EDH 17
LC 240 Child Language Devel	D. Knapp	Lottery	20	MW 3-430	FPH 105
LC 241 Small Computer Design	R. Tinker	Instr Per	12	F 1-3	Lib G-10
LC 242 Theory of Knowledge	C. Witherspoon	Open	None	MW 3-5	FPH 107
LC 245 Historical Knowledge	R. Lyon	Open	None	MWF 930-1030	FPH 107
LC 250 Formal Models	R. Moll	1st Come	20	TTh 1030-12	PH C-1
LC 251 Philosophy of Language	D. Israel	1st Come	12	TTh 9-1030	PH A-1

FOREIGN LANGUAGES

LC 115 Intens Elem Spanish	A. Nieto	TBA
LC 130 Intens Elem French	R. Pelletier	TBA

SCHOOL OF NATURAL SCIENCE

*NS 102 Biology-Death/Dying	M. Gross	Open	None	TTh 1030-12	PH B-1
NS 103 Black Moles	K. Gordon/C. Gordon	Open	None	MWF 1030-12	CSC 114
NS 111 Photo Process	S. Goldberg	Open	None	MW 1030-12	PH B-1
NS 118 Physics of Waves	J. Van Blerkom	Open	None	WF 1-230	CSC 3rd Fl
NS 121 Human Biology	J. Foster, et al	Open	None	W 330-5/WF 830-10	FPH WLH/106, 103
NS 124 Microbiology	S. Oyewole/L. Miller	Open	None	WF 1030-12/1-230	CSC 3rd Fl/Lab
NS 126 Beanbag Genetics	L. Miller/K. Hoffman	Open	None	MWF 830-1030	FPH ELH
NS 129/229 Grass/Sheep/Dogs	R. Coppinger, et al	Open	None	TTh 1-5	FPH MLH

ALL TERM 1978 SCHEDULE

SCHOOL OF NATURAL SCIENCE

COURSE	INSTRUCTOR	ENROLLMENT METHOD	LIMIT	TIME	PLACE
NS 140 NHCRV	J. Foster, et al	Instr/Open	15/30/15	MW 3-5	FPH WLH
NS 149 Topics in Agriculture	P. Slater	Open	None	MW 9-1030	PH B-1
NS 165 Astronomical Observing	K. Gordon	Open	None	M 730-1030pm	CSC 3rd Fl
NS 167 Alternative Energy	A. Krass	Open	None	T 1-230	FPH WLH
NS 171 Energy & Environment	A. Krass	Open	None	MW 830-10	CSC 114
NS 173 Understanding Relativity	S. Goldberg/K. Gordon	Open	None	TTh 1030-12	CSC 114
NS 174 Understandings/Nature	R. Lutts	Open	None	TTh 1-230	EDH 17
NS 175 Cancer Research	S. Oyewole/D. Bessen	Open	None	TTh 1-230	CSC 3rd Fl
*NS 178 Bio & Sex Identity	M. Gross	Open	None	TTh 1030-12	PH B-1
NS 179 Science & Emotions	M. Gross	Open	None	MF 1-3	PH B-1
NS 192 Elem Schl Science Wkshp	M. Bruno	Open	None	MF 1-3	EDH 16
NS 196 Fat/Diet/Weight Loss	M. Bruno	Open	None	MW 1-230	EDH 16
NS 201 General Chemistry	L. Williams	1st Come	25	WF 830-10	FPH ELH/Lab
NS 212 Organic Chemistry	N. Lowry	Open	None	MWF 1030-12/W 1-3	EDH 15/Lab
NS 226 Eco-Feminism	J. Raymond	Instr Int	None	TTh 130-3	PH B-1
*NS 228 Genetics of Evolution	K. Hoffman/L. Miller	Open	None	MWF 1030-12	FPH 103
NS 239 Factory in the Field	T. Danforth, et al	Instr Int	15-DivII	TBA	CSC 2nd Fl
NS 245 Marine Biology	C. Van Raalte	Instr Per	15	TTh 1030-12	PH D-1
NS 260 Calculus	D. Kelly	Open	None	TTh 1030-12	FPH MLH
NS 261 Math-Scntsts/Sci Scntsts	D. Kelly	Open	None	MWF 930-1030	FPH 103
NS 269 Modern Algebra	K. Hoffman	Open	None	TTh 1030-12	Lib G-10
NS 274 Computer Design	R. Tinker	Open	None	F 1-3	FPH 105
NS 283 Quantum Mechanics	H. Bernstein/A. Krass	Open	None	TTh 1030-12	Amherst
ASTFC 021 Stars	G. Greenstein/T. Dennis	Instr Per	None	MW 125-320/Th2-4, 730-930	Smith
ASTFC 031 Space Science	W. Irvine			TBA	Smith
ASTFC 037 Astronomical Obs	W. Seitter/R. White			MW 230-345 +Lab	UMASS-GRC 534
ASTFC 043 Astrophysics I	E.R. Harrison			MF 125-320	

SCHOOL OF SOCIAL SCIENCE

SS 113 Urban Political Econ	L. Hogan	1st Come	20	TBA	FPH 104
SS 114 Econ Perspect-Women	L. Nisonoff	1st Come	25	TTh 1030-12	FPH 105/ELH
SS 115 Political Justice	L. Mazor	1st Come	20	T/Th 9-1030	FPH 108
SS 121 Manic Depressive	L. Farnham	1st Come	20-DivI	MW 1030-12	CSC 125
SS 124 Inescapable Marx	M. Cerullo, et al	1st Come	20	MW 3-430	CSC 114
SS 125 Kids & Kin	M. Mahoney/B. Yngvesson	1st Come	20	TTh 1-3	GH Masters
SS 128 Colleges: Overview	W. Grohmann	1st Come	20	TTh 9-1030	FPH 106
SS 131 Growth/Environment	S. Shapiro	1st Come	20	MW 1030-12	FPH 108
SS 133 Crime/Criminals/Citizens	B. Linden	1st Come	16	TTh 1030-12	FPH 104
SS 140 American Slavery	A. Berman	Lottery		MW 130-3	
SS 147 Ed Psych-Political Force	CANCELLED				
SS 154 Bureaucracy/Organizations	CANCELLED				
SS 158 Schizophrenia	E. Brown	1st Come	18	TTh 1030-1230	PH A-1
SS 165 Social Development	E. Cooney/M. Mahoney	1st Come	20	TTh 9-1030	FPH 103
SS 175 Monasteries-Med Schools	O. Fowlkes	1st Come	25	TTh 1-3	FPH 108
SS 184 American Capitalism	S. Warner	1st Come	20	MW 1030-12	TM Masters
SS 210 Intro Economics	L. Nisonoff	Open	None	MW 1030-12	FPH 104
SS 214 Capitalism & Empire	C. Bengelsdorf, et al	Open	None	TTh 1030-12	FPH ELH
SS 217 Philo-Law & Justice	L. Mazor	Open	None	MW 1030-12	FPH WLH
SS 220 Happening in Court?	O. Fowlkes/B. Yngvesson	Open	None	TTh 9-1030	FPH 108
SS 223 Black Amers-Cap Society	L. Hogan	Open	None	TBA	
SS 230 Marxist Reading Group	D. Sloss	Open	None	TBA	
SS 243 Factory in the Field	T. Danforth, et al	Instr Int	15-DivII	TBA	EDH 15
SS 249 American Public Policy	S. Shapiro	Open	None	TTh 1030-12	FPH 106
SS 260 School & Society	H. Rose	Open	None	MW 1-230	FPH MLH
SS 261 Math-Scntsts/Sci Scntsts	D. Kelly	Open	None	MWF 930-1030	PH A-1
SS 265 Urban Condition	M. Breitbart	1st Come	20	MW 130-3	FPH ELH
SS 280 Women-Socialist Societies	C. Bengelsdorf/J. Landes	Open	None	TTh 130-3	PH A-1
SS 281 Western Marxism	M. Cerullo	Instr Per	15	TTh 1-3	

INTEGRATIVE SEMINARS

IN 302 Women in the Arts	S. Kaplan/S. Allen	1st Come	15	W 7-9pm	GH #47
IN 306 Culture-Genuine/Spurious	J. Tallman	Instr Per	15	M 130-430	EDH 17
IN 310 Alt Life Style/Black Women	G. Joseph	Instr Per	10	TTh 930-1030	FPH 106
IN 312 New China	J. Koplin	Instr Per	10	W 730-10pm	FPH 108
IN 315 Social Hist-Architecture	B. Linden	Instr Per	12	WF 1-3	FPH 107
IN 317 Science & Religion	R. Rinard	Open	None	MW 1030-12	PH D-1
IN 319 Domination of Nature	M. Breitbart/R. Lutts	Instr Per	15	W 930-12	EDH 17
IN 321 Racism/Sexism/Capitalism	G. Joseph	1st Come	12	TTh 1-3	FPH 106

OUTDOORS PROGRAM

OP 106 Top Rope Climbing	D. Roberts	Instr Per	None	F 1-6	RCC
*OP 118 Teaching Skills	J. Greenberg/E. Ward	Instr Per	12	M 1-3/W 1-530	TBA
*OP 127 Sense of Self	J. Greenberg	Instr Per	12	T 1-3	TBA
OP 130 Cont Top Rope Climbing	E. Ward	Instr Per	None	Th 1-6	RCC
OP 131 Hist/it-Mountain	D. Roberts/E. Ward	Open	None	F 10-12	TBA
OP 148 Swamp/Marshes/Bogs	R. Lutts	Open	None	TBA	EDH-17
OP 169 Understandings/Nature	R. Lutts	Open	None	TTh 1-230	RCC
OP 201 Lead Rock Climbing	E. Ward	Instr Per	None	T 1-6	
OP 210 Literary Naturalists	R. Lutts			TBA	
OP 215 Environ Ed #1	R. Lutts, et al	Instr Per	See Course Description		
OP 216 Environ Ed #2	R. Lutts, et al	Instr Per	See Course Description		
OP 235 All the Things	L. Cullen/T. Peterson		15	W 1-6	RCC
OP 240 Environ Ed Seminar	R. Lutts			TBA	So Lounge
OP 261 Long Distance Running	C. Fisher	Open	None	F 11-1230	

HA 216 THE OPERATIONS OF CULTURE

Jill Lewis

This course aims to explore recent ideas which analyze the functioning of ideology and explore ways of examining cultural expression within given social contexts. The questions to be explored are: What is ideology, why and how does it operate? What determines the spaces of self-reflection, criticism, and creativity? What is the relevance of historical context to art? What is the relationship of art to ideology? What is criticism, how has critical practice developed, and what are the forms that literary criticism takes?

HA 220 FILM/PHOTOGRAPHY STUDIES: INDIVIDUAL PROBLEMS IN FILMMAKING, PHOTOGRAPHY, AND RELATED MEDIA

TBA

This class will attempt to integrate the procedural and formal concentration requirements of the College with the creative work produced by each student. It will offer forum for meaningful criticism, exchange, and exposure to each other. In addition, various specific kinds of group experience will be offered: field trips to museums, galleries, and other environments; a guest lecture and workshop series; and encounters with student concentrators, teachers, and professionals who are in the other visual arts or related endeavors. Each student's concentration/contract must be written prior to enrollment.

HA 225 PHOTOGRAPHY WORKSHOP II

TBA

Through lectures, field work, and seminars, students will attempt to integrate their own humanistic concerns with a heightened aesthetic sensitivity. Through the study of a wide variety of photographic experiences and the creation of personal images, the students can share a concern for the possibility of expression and the positive influence photography can have upon the aesthetic and social environment.

HA 228 THEOLOGY

Raymond Kenyon Brad

This course is a continuation of the Fall Term course. Its endeavor is to be twofold: it is, firstly, to effect an introduction into the domain of theological discourse through a study of a select number of texts; it is, secondly, to engage in a primary speak God forth in the words of human speech; it is, thirdly, both in its own terms and in those of its readings, to effect a theological determination of the order of becoming; and, fourthly, it is to consider the nature of the relationship between the human and the divine orders of being.

HA 231 POETRY WRITING WORKSHOP

Barry Goldenson

This course has a double commitment—to both writing and criticism. In practice this means that workshop members have as profound a commitment to reading one another's work as to their own. The goal of this is to develop a self-critical attitude toward one's own writing.

HA 233 DESCARTES AND KIERKEGAARD

Robert Meagher

The path of this seminar will lead us through several works of each philosopher, works which are seminal not only for the development of their own thought but also for the development of Western thought. Our focus will be upon careful attention to central texts and central ideas, dwelling therein until their power and their truth appear.

HA 234 THE LITERATURE OF LIVES

Jill Lewis

This course will involve reading and discussion of the autobiographies of women, giving accounts from different historical moments, different societies, political realities, and social perspectives of their struggle to survive and change their lives and the world around them. We will also read biographies by others of women who did not reconstruct their own lives in language form.

HA 265 BOOK SEMINAR: THE JOURNALISM OF SOUND CONSCIOUSNESS

David Kerr

See Language and Communication course description.

HA 271 SOUND AND MEANING IN POETRY

James Gee

See Language and Communication course description.

HA 279 LAW AND LITERATURE

(SS 255) David Smith and Lester Maser

This course will explore several themes related to law as they appear in works of literature. The major themes will include the trial as metaphor; the idea of property, and the nature of justice. We will read and discuss works by L. Carroll, A. Miller, Kafka, Locke, Engels, Gilman, Melville, and Aeschylus among others.

HA 295 LITERARY THEORY

Clay Hubbs

Description unavailable.

SCHOOL OF LANGUAGE AND COMMUNICATION

DIVISION I

WORKING IN THE CONSCIOUSNESS INDUSTRY: MASS MEDIA STRUCTURE AND CONTROL

LC 110

NEWSPAPERS AND HOW TO READ THEM

LC 129

THE SPANISH LANGUAGE

LC 133

LINEAR PERSPECTIVE

LC 159

LANGUAGE, CULTURE, AND PERSONALITY

LC 164

TOPICS IN MASS COMMUNICATIONS: WHATEVER HAPPENED TO MARSHALL McLuhan?

LC 167

TOPICS IN MASS COMMUNICATIONS: ADVERTISING--THE MANIPULATION OF DEMAND

LC 168

MEANING

LC 170/270

PERSON PERCEPTION: THE DEVELOPMENT OF UNDERSTANDING OF PERSONS, INTERPERSONAL RELATIONSHIPS, AND THE SOCIAL WORLD

LC 181

PHILOSOPHY OF PERCEPTION

LC 191

CRITICAL PERIODS: THE IMPORTANCE OF EARLY EXPERIENCE IN CHILD DEVELOPMENT AND EDUCATION

LC 192

THE NEWS: FACT, INTERPRETATION, AND FICTION

LC 193

DIVISION II

RESEARCH SEMINAR: MATHEMATICAL PROBLEMS IN LINGUISTICS

LC 212

COGNITIVE DEVELOPMENT: THE EVOLUTION OF THE MIND

LC 229

COMPUTERS IN THE LAB: HARDWARE, SOFTWARE, INTERFACE

LC 243 (NS 243)

ALGORITHMS

LC 245

COGNITIVE PSYCHOLOGY: THE MIND AND ITS PHYSIOLOGICAL CORRELATES

LC 246

READING COURSE IN LANGUAGE AND CONSCIOUSNESS

LC 247

ASTHETICS

LC 249

SOUND AND MEANING IN POETRY

LC 277 (HA 271)

BOOK SEMINAR: THE JOURNALISM OF SOCIAL CONSCIOUSNESS

LC 280 (HA 265)

FOREIGN LANGUAGES

INTENSIVE INTERMEDIATE SPANISH

LC 150

INTENSIVE INTERMEDIATE FRENCH

LC 151

LC 110 WORKING IN THE CONSCIOUSNESS INDUSTRY: MASS MEDIA STRUCTURE AND CONTROL

James Miller

Mass communications are a significant product of what the German critic Hans Jürgen Habermas calls the "concretization of the industry." This industry is composed in large part of the mass of mass communications, which mass produce and distribute radio and television programming, newspapers, motion pictures, and the like.

Any industry is characterized by the presence of formal organizations in which people who belong to a variety of occupations and professions work. Analysis of any industry includes the study of human labor-process and product. The special significance of labor in the consciousness industry derives from the central place of mass communications in modern life. Today the media perform certain tasks—such as acculturation, socialization, and legitimization—previously the prerogative of church and state. The media are instruments of influential groups. And they also possess their own self-interested, independent authority.

Thus the study of labor in the consciousness industry is the study of ways in which power is harnessed and directed in the contemporary world. This course will focus on the nature of doing work in American mass media. Emphasis will be upon aspects of structure and control in commercial television and daily newspapers.

Initially, we will immerse ourselves in the work routines of a journalist by reading relevant literature and, if possible, by spending a day or so with a practicing journalist. An observer's notebook will be kept of this experience and a paper wedding literature and actual observations will be written. Next we will examine literature on media organizations and professions, and on the institutional approach to communications and culture. From this reading we will develop in short-paper form a general theoretical framework for the course. Finally, we will investigate intensively (1) the dynamics of commercial television, in particular the similarities between "news" and "entertainment" and (2) the changing face of the daily newspaper from layout to marketing strategies to ownership patterns. This final project will entail an oral presentation in class. Format for class meetings will be a mixture of lectures and discussion.

The class will meet twice a week for 1 1/2 hours each time.

Enrollment limit: 15, by permission of the instructor at the first meeting.

LC 129 NEWSPAPERS AND HOW TO READ THEM

David Kerr

The average person's ability to read a newspaper is a composite of incidental learning picked up "on the street," so to speak. By the time one reaches college one has spent countless hours being instructed in how to read fiction, poetry, and essays. Formally or informally one has been taught how to play tennis or poker, drive a car, choose a wine, fill out a form, cook a meal, and a myriad other skills taught by many necessary to get along in our culture. Let's have the rare person who has had someone say, "Let me help you learn how to read a newspaper intelligently." This course has that aim.

During the course we will study a number of topics relating to newspapers: the evolution of the American newspaper, the newspaper industry, the variety of American newspapers, day-to-day newspaper operations, the different newspaper departments, how political and cultural events affect the news and vice versa, newspapers and the law, ethics, the role of advertising, the interaction between newspapers and the electronic media, criticism of American newspapers, and methods of news analysis.

There will be two brief critical papers and one longer research paper required. In addition everyone will try writing and editing a news story and an editorial.

The class will meet twice a week for 1 1/2 hours each session.

Enrollment limit: 25

J. Miller

LC 133

THE SPANISH LANGUAGE

Mark Feinstein

J. Gee

LC 133

This will be a course in how to think about a particular language—Spanish—and about natural human language in general. We will use Spanish in an effort to discover universal principles of language, and at the same time examine those properties that make Spanish unique. Aspects of meaning, sound structure, and sentence structure will be considered.

E. Cooney

LC 133

C. Witherspoon

LC 159

LINEAR PERSPECTIVE

William Marsh

D. Knapp

LC 159

Using the techniques and history of linear perspective as background, this seminar will consider questions about perception, geometry, and the philosophy of mathematics. The seminar uses the geometry to provide an accessible and slow-paced introduction to the nature of mathematics.

R. Lyon

LC 193

W. Marsh

LC 164

LANGUAGE, CULTURE, AND PERSONALITY

Janet Tallman

D. Knapp

LC 164

Language is multi-faceted, part of many paradoxes, creatively and destructively used, full of beauty and power. Culture gives us the patterns by which we express ourselves and live. To us the patterns of being. Personality develops from both language and culture, but our uniqueness also transcends both. Our ideas of language, culture, and personality intertwine and become entangled. I would like us to try to tease out these ideas and study them through reading and discussion.

W. Marsh

LC 164

We will begin by looking at language and thought, at how language inhibits thinking, and how it gives form to thought. Language is central to our development socially; through learning a language we learn a way of looking at the world which we share with those around us. We also must learn, in speaking to one another, how to make ourselves understood. To do this, we must understand the other, and through that, understand ourselves. Thus we learn to express ourselves in social interaction, and through social interaction we acquire the values and beliefs of our culture. Some cultures develop certain aspects of the self; others stress other qualities. Language is crucial to this process of the inhibition or expression of self. Who we are and who we become are filtered through self, language, and culture. We must understand all of this to understand our present condition. These are the central issues of the course.

N. Stillings

LC 164

J. Tallman

LC 164

C. Witherspoon

LC 164

J. Gee

LC 164

D. Kerr

LC 164

Our readings will be drawn from social theory and literature, from anthropologists, social psychologists, and others interested in language and culture. We will read selections from Freud and Laing, from G. H. Mead, Sapir, Whorf, Yagelsky, and Striner, and we will read George Orwell's 1984, focusing on Newspeak. We will examine modes of inquiry as well as the content of these writings. You will be encouraged to develop themes from the course into serious research and writing. I will do most of the talking.

The class will meet twice a week for two hours each time.

Enrollment limit: 20

Five-College grades will not be given.

LC 167 TOPICS IN MASS COMMUNICATIONS: WHATEVER HAPPENED TO MARSHALL McLuhan?

(Five-week mini-course)

James Miller

During the sixties a Canadian professor of English literature named Herbert Marshall McLuhan coined the expression, "the medium is the message," published several unusual books, and numerous articles that developed this theme, and became a pop-culture celebrity in this country. Who was Marshall McLuhan? What is his writing about? How well are his theories, aphorisms, and poetic observations about the impact of mass communications on society standing the test of time?

We will spend five weeks intensively reading McLuhan's major works and his critics' appraisals of them. Our investigation will focus on McLuhan's tendencies toward technological determinism—that is, the form of mass communication (print vs. electronic media, especially) that is more influential than content in affecting society.

Students will be responsible for three or four short papers that review individual works, and a longer paper that criticizes McLuhan's perspective on mass communication effects. Classes will follow a discussion format.

The class will meet twice a week for 1 1/2 hours each session. Enrollment limit: 15; by permission of the instructor at the first meeting.

LC 168 TOPICS IN MASS COMMUNICATIONS: ADVERTISING--THE MANIPULATION OF DEMAND

(Five-week mini-course)

James Miller

Paid advertising is the primary economic support of commercial mass media in America. It is an industry unto itself. Some have called it a major art form. Other critics see advertising as an identifiable villain in cultivating a social order dedicated to material consumption.

In this five-week course, which will begin meeting at the start of the seventh week of the term, we will focus our attention on how advertising creates and sustains consumer demand for manufactured commodities. We will examine psychological theories of persuasion, the historical evolution of advertising, and sociological and anthropological analyses of the cultural implications of advertising. Our perspective on advertising will be critical.

Students will be required to write a paper with an historical or theoretical point of view on the significance of advertising in contemporary America, or to develop and carry out an empirical study—perhaps a content analysis of selected broadcast commercials, printed advertisements, or marketing campaigns. Class will follow a discussion format.

The class will meet twice a week for 1 1/2 hours each session.

Enrollment limit: 15, by permission of the instructor at the first meeting.

LC 170/270 - MEANING

James Paul Gee

This course will be concerned with the nature of human language, with special reference to meaning. First we will investigate

how the structure of a sentence determines its (literal) meaning. We will introduce the theory of transformational-generative grammar and explicitly take up the question of the role of semantics (the theory of meaning) in the theory.

Next we will consider the role of the verb in a sentence and the various roles noun-phrases play in the "demands" set up by the verb (e.g., "The agent" of a verb (Theme) to the action (Recipient) of the verb (Theme) bought a book (Theme) from the man (Agent)). We will go on to detail a theory of "thematic" or "case" relations (i.e., of the above sorts of "roles").

We will also take up the question of the role played by such notions as "subject," "object," "indirect object" (grammatical relations) in language.

Then we will consider the meanings of words and the way in which words pattern into semantic fields (rather like mosaics where the space may be filled up with pieces of different shapes and sizes and where certain pieces may be missing). We will sketch a theory of the "lexicon," taking up questions of lexical structure, lexical redundancies, and lexical generalizations.

From the level of the sentence we will turn to the level of discourse and investigate the communicative structure of languages in terms of such notions as "Topic" versus "Comment" and "Old Information" versus "New Information." Here we will investigate principles languages use to determine word order and to structure messages.

Then we will consider the nature of speech acts, presupposition, and conversational implicature—that is, how we do things not merely say them in language; how we can imply what we haven't literally said, and so forth. Here we will look into "pragmatics," the role of language in use and context.

Throughout the course we will draw out data from English as well as other languages, and will be concerned with discovering universal factors underlying languages and cultures.

As we develop a view of meaning in language we will gradually also take up topics in the philosophical theory of meaning and the philosophy of language, e.g., such topics as the nature of truth conditions in relation to a theory of meaning, sense and reference, opaque contexts in language, the *de dicto/de re* distinction, the analytic-synthetic distinction, entailment, conceptual truths, and so forth.

The class will meet twice a week for 1 1/2 hours each session.

Enrollment limit: 20

LC 181 PERSON PERCEPTION: THE DEVELOPMENT OF UNDERSTANDING OF PERSONS, INTERPERSONAL RELATIONSHIPS, AND THE SOCIAL WORLD

Ellen Cooney

Recently there has been considerable interest in studying social development by analyzing the individual's way of conceptualizing and understanding the social environment. In general such studies have attempted to define stages in the child's concepts and ways of thinking about various aspects of the social world, including persons, interpersonal relations, and the self. This course will review this literature on social cognition and attribution as well as provide the student with a supervised research experience in this area.

In the first half of the course we will review the theoretical and empirical literature. Included here will be an overview of social-cognitive and attribution theory as well as discussions of specific research, including Kohlberg's descriptions of stages of moral development, Selman's and Flavell's studies of the child's developing understanding of persons and interpersonal relations, and Kelley's work on the development of social attribution. Throughout we will consider both the findings and the research strategies of these investigators.

In the second half of the course students will undertake their own study of the child's developing conceptions of some aspects of the social environment. Possible topics include developing conceptions of self-identity, sex roles, parents, teachers, school, emotional disorders, and physical handicap. This research will involve both a review of existing literature in the area chosen as well as considerable supervised field research.

Class meetings will include lectures, discussions of the readings and of student research, and class presentations of student research.

The class will meet twice a week for 2 1/2 hours each session. Enrollment limit: 12, with permission of the instructor after the first meeting of the class.

LC 191 PHILOSOPHY OF PERCEPTION

Christopher Witherspoon

This seminar/tutorial concerns several issues about perception, perceptual knowledge, and sense-experience. It has four parts. The first addresses problems and theories of central concern in traditional epistemology and involves readings from the British empiricists and Kant. The second concerns some twentieth-century critiques of the traditional approaches and includes readings from phenomenologists, gestalt psychologists, and "linguistic philosophers." The third part is a survey of facts and theories in psychology of perception; there will be substantial readings from Irvin Rock's *An Introduction to Perception* and readings from Irvin Rock's *An Introduction to Perception* and readings from Irvin Rock's *An Introduction to Perception*. The fourth part is about current work both in the philosophy of perception and in areas of philosophical psychology concerned with perception and information processing; most of the readings will be from very recent articles and from not yet published manuscripts. The last two parts in particular are aimed at generating topics for jointly done Division I examinations involving teams of up to five people. The schedule will be organized in such a way that the last month of the term will be mainly devoted to examination work.

Virtually all of the writing for this course prior to examination work will be in short tutorial papers which will be duplicated and critically discussed in meetings (including two or three other students and the instructor). Each participant in the seminar will be in at least three such tutorial meetings.

The class will meet twice a week for 1 1/2 hours each session.

Enrollment limit: 16, with permission of the instructor after the first meeting of the class.

Knapp

In this course we will examine and evaluate a controversial theory, psychoanalysis, and biologists, linguists, and ethologists have all been known to endorse the concept of a critical period in development. They claim, in effect, that children can do things which adults can't. Certain experience need to occur early, these theorists say, or it will be too late to learn from them. We will ask if this is true and, if so, why.

French school educators (including Montessori) say that learning before the age of five or so is more "natural" and easier. Linguists often claim that unless a language is learned before

adolescence, it can never be learned as fluently. For instance, people who learn a second language after adolescence will have a foreign accent, it is claimed, while those who learn one earlier usually won't. Ethologists studying social attachment in animals have also pointed to the role of early experience. Newly hatched ducklings will follow (or "imprint on") the first moving object they see. In the natural world this means that they tag along behind their mother, but in the laboratory they may imprint on a red rubber ball. Baby monkeys raised without their mothers can become emotionally disturbed. If they are taken out of isolation early enough the effects can be reversed, but past a certain critical period it is too late. Early experience is also alleged to play a special role in perceptual development.

To evaluate these claims we will look at several sources of evidence, arguing both for and against them. We will become familiar with the cognitive development stage theory of Piaget, and see how it bears on the critical periods claim. We will look at research on acquiring a first and a second language, and examine cases of "natural isolation" experiments such as children in institutions or "wild children" like Genie who was isolated in a Los Angeles attic until the age of 13 and is now learning to speak. We will look at neuropsychological research on the development of the brain, especially the development of differences between the right and left hemispheres of the cortex, which specialize for different kinds of cognitive tasks. Finally, we will examine some preschool research and evaluate their effectiveness. The class will work on designing and carrying out some small experiments to answer questions which don't seem to be answered in the literature. In addition, there will be several short papers. Class meetings will consist of lectures and discussion.

The class will meet twice a week for 1 1/2 hours each session.

Enrollment limit: 20, by lottery at first meeting.

LC 193 THE NEWS: FACT, INTERPRETATION, AND FICTION

Richard Lyon

This course will be a study of current practices in news reporting in the media: newspapers, magazines, television, and radio—with an eye to questions of fairness, objectivity, inclusiveness, significance.

LC 212 RESEARCH SEMINAR: MATHEMATICAL PROBLEMS IN LINGUISTICS

William Marsh

In this seminar we will meet once a week with a class at the University of Massachusetts taught by Emmon Bach to discuss problems.

LC 229 COGNITIVE DEVELOPMENT: THE EVOLUTION OF THE MIND

Deborah Knapp

This is a course about how children think. We will not only become familiar with the stage theory of Piaget, but will also read recent research articles and materials on educational programs. We will stress the implications of cognitive development for education, for understanding adult cognition, and for studying anthropology and social and personality development. Among the topics to be covered (this list is not exhaustive) are:

Infant perception. To what extent is the world of the infant "booming, buzzing confusion" and to what extent does it have structure? What abilities do newborns have to perceive shapes, patterns, and spatial arrangements? When do babies first recognize a human face? What does an infant's smile mean? How do babies learn to reach for grasp objects? Do infants think the world goes away when they close their eyes?

Children's problem solving. How do children come to recognize contradictions in their own thinking? How does a child's memory differ from an adult's? How do children come to understand the concept of number? Why don't children appreciate magic tricks? We will include special topics such as imagery and spatial representation, classification, conservation, and inferences and transitive reasoning.

Mind-awareness. When and how do children introspect about their own thinking? Do they monitor their understanding of an explanation to see whether they really understand or not? How much of their own memory limitations do they realize? How do they learn to plan out an activity strategically, several steps in advance? How do they learn what it means to verify a conclusion?

Stage theories and critical periods. What have different theorists said about the qualitative differences among children of different ages? How can stage theories account for learning and progress from one stage to another? Can qualitative differences be reduced to quantitative ones? Critical periods: Is it true that children can learn certain things only at certain ages? (For instance, in learning language after adolescence more difficult?) We'll examine some preschool teaching programs that rely on the supposed superiority of young children in learning some things.

Educational implications. What methods are currently used to teach reading? To teach arithmetic? What can theoretical research tell us about the effectiveness of these methods? We will attempt to build connections between psychological theory and educational practice.

Motivation, moral development, and the roots of social interaction in cognitive abilities. Why do children learn? Is it because of reward and punishment and intrinsic curiosity? How because of reward and punishment and sense of right and wrong depend on their other capabilities? When are children first able to take account of another's point of view? When can they cooperate in group activities? Be kind in other cultures pass through the same Piagetian stages?

Class meetings will be devoted to lecture and discussion.

The class will meet twice a week for 1 1/2 hours each session.

Enrollment limit: 20, by lottery at the first class meeting.

LC 243 COMPUTERS IN THE LAB: HARDWARE, SOFTWARE, INTERFACE

NS 243

Albert Woodhall, Kurt Gordon, and Allen Hanson

See Natural Science course description.

LC 245 ALGORITHMS

William Marsh

Algorithms are step-by-step procedures for doing things or solving problems, like the methods we learned in grade school to multiply numbers or look up words in a dictionary. Many human and animal activities like perception and movement probably involve the unconscious use of algorithms. Computer programs incorporate explicit algorithms, and computer science has been defined as the study of algorithms.

The expected text for the course is Goodman and Hedden's *Introduction to the Design and Analysis of Algorithms*. Class time will be used to do and discuss examples of algorithms and to provide an overview and background for the reading of the text.

There is no prerequisite for the course and beginning students are very welcome, but students who feel any discomfort with mathematics should talk with the instructor.

The class will meet four times a week for an hour.

Enrollment limit: none

LC 246 COGNITIVE PSYCHOLOGY: THE MIND AND ITS PHYSIOLOGICAL CORRELATES

Neil Stillings

This course will treat four fundamental topics in cognitive psychology and their ties with physiology. Each topic will be introduced with a survey of psychological and neuropsychological research, followed by a careful look at one or two experimental studies from cognitive psychology.

Vision. We will begin with what is known about how the perception of space, action, and pattern are related to properties of light and then move on to physiological and psychological theories of how organisms detect these properties.

Consciousness and Attention. We will first take up the determinants of wakefulness, sleep, and unconsciousness. Then we will consider the capacities and limitations of human attention.

Memory. Many psychological and physiological studies support the hypothesis that there are two distinct kinds of memory, short-term and long-term. We will critically examine this evidence along with an overlapping body of psychological data that suggests that future memory for incoming information depends on how the mind deals with the information.

Modes of Thought. Recently a number of psychologists and neuro-psychologists have claimed that each cerebral hemisphere is specialized for a different mode of thought. Usually the left brain is characterized as verbal or analytic and the right brain as visuospatial or holistic. We will attempt to assess the psychological and physiological evidence for this class of theories.

The course is most suitable for students with background in cognitive psychology or neuropsychology, or in the related fields of computer science, linguistics, and philosophy of mind. Students with no background are welcome but may have to scramble to keep up. There will be a steady diet of rather technical readings, drawn from textbooks and journals, several short written assignments, and a term paper.

The class will meet twice a week for 1 1/2 hours each session.

Enrollment limit: 20, on a first come basis.

LC 247 READING COURSE IN LANGUAGE AND CONSCIOUSNESS

Janet Tallman

I would like to bring together people willing to read extensively in the area of language and consciousness. We will start with the book by Lee, et al., *Explorations in Consciousness*, reading from the bibliographies there as well as from a selected bibliography I will prepare for the course. We will compare anthropological, sociological, and psychological theories about the nature of human consciousness, and try to establish from theoretical writings the place of language in consciousness. The focus of the course will be first, on readings, second, on class discussion, and third, on periodic lectures from me. I will encourage you to write on topics which relate to your intellectual areas. Together we will build an annotated bibliography for future students in this area.

The class will meet once a week for three hours.

Enrollment limit: none

Five-College grades will not be given.

LC 249 AESTHETICS

Christopher Witherspoon

This first course in aesthetics will center about the reading and critical discussion of several classics of modern aesthetic criticism written between the thirties and the fifties and of shorter writings by modern painters and sculptors. Most of the books will be read in their entirety; they will be read in the order listed below; and issues, approaches, and theories will be discussed as they emerge in the course of our discussions of the texts.

An initial historical survey of accounts of art, the aesthetic, beauty, and other kinds of excellence of art works, and some problems of criticism will be followed by a study of the philosophical accounts of Collingwood and Newby. We will then turn to questions of the use of aesthetic positions and principles in art history and criticism, and we will study the work of Fry, Gombrich, and Read. The next part of the course will concern the aesthetics of other theoretical writings of Klee, Gabo, Kandinsky, Hoffman, and several other artists and sculptors. We will then study some aspects of the work of Nelson Goodman which constitute substantial advances beyond traditional philosophical aesthetic theories, and then conclude with a discussion of the aims of aesthetic theory and the scope and limits of the kinds of accounts we have studied.

This course is intended to be a self-contained critical survey, fostering greater sophistication in our own thinking, both about art and about particular art works and our experience of them. It is also intended to provide a foundation for more advanced work in art criticism and related areas. Very extensive reading will be required. A final paper and a few short papers (some of which will be assigned and some chosen by the student) will be required.

Fry, *Last Lecture* and *Painting and Sculpture*
Gombrich, *Art and Illusion*
Read, *A Concise History of Modern Painting*
Chipp, *Theories of Modern Art: A Source Book of Artists and Critics*
Herbert, ed., *Modern Artists on Art*
Hoffman, *Search for the Real*
Goodman, *Languages of Art*
Articles by Valery, Benjamin, Merleau-Ponty, and others

The class will meet twice a week for 1 1/2 hours each session.

Enrollment limit: Open

RELIMINARY SPRING TERM 1979

LC 277
(MA 271) SOUND AND HEARING IN POETRY
James Paul Gee

This course, generally, will take up the nature of the sound (and form) of poetry, its meaning (how and what it communicates to us), and the structures of language that mediate between the two (the role of syntax in poetry).

The course will start with an introduction to meter, both in its historical dimensions and in terms of techniques and theories of scansion. Students will learn to scan and to discuss the rise of English poetry. In discussing the sound and form of poetry we will also take up such matters as alliteration, onomatopoeia, and the role of syntax in contributing to the rhythm or prosody (in a general sense) of a poem. We will be concerned with both traditional metered poetry and so-called free verse, as well as variations in between.

Then we will discuss how poetry communicates both cognitively and emotionally with us, i.e., with the "meaning" of poetry. We will consider the nature of the interaction of sound, form, and meaning, as well as various views of the nature of meaning in poetry, including the view that poetry is "hyper-semantic," i.e., the view that not only the verbal meanings of words, but the words of a poem contribute to its meaning, but all aspects of its structure and form (at least ideally).

Throughout we will be concerned with the ways in which contemporary linguistic and grammatical analysis can help us to understand, appreciate, and criticize poetry. We will for the most part be concerned with the language of poetry and its role in relation to the standard grammar (i.e., what is the role of deviance? what is the role of metaphor?). We will also be concerned, at a more general level, with how one would go about developing a general theory of the aesthetics of poetry. However, the emphasis throughout the course will be on actually analyzing poetry and helping students to develop competence in reading and appreciating poetry.

The class will meet twice a week for 1 1/2 hours each time.

Enrollment limit: 15, by discussion at first class meeting.

LC 280
(MA 263) BOOK SEMINAR: THE JOURNALISM OF SOCIAL CONSCIOUSNESS
David Kerr

This seminar will concern "muckraking" and "advocacy" in American journalism from the turn of the century to the present and as well as will include critical considerations of the practice as well as examples of the craft. Practitioners studied will range from Upton Sinclair and Ida Tarbell to Jack Anderson, Seymour M. Hersh, and Jimmy Breslin. Although not primarily an historical study, the seminar will examine chronologically a wide range of material from twentieth century America. We will also look at the use of fiction and fictional devices for journalistic purposes.

The reading rate will be roughly equivalent to a book a week, and there will be two papers of modest length required, one of which will be the basis for a student-led discussion.

The seminar will meet once a week for two hours.

Enrollment limit: 12, by lottery if necessary.

FOREIGN LANGUAGES

LC 150 INTERMEDIATE INTERMEDIATE SPANISH
TBALC 151 INTERMEDIATE INTERMEDIATE FRENCH
TBA

SCHOOL OF NATURAL SCIENCE

DIVISION I:

HISTORY OF ASTRONOMY
ASTFC 34

W. Settle, R. White*

PIGMENTS, DYES AND THE ARTIST'S PALETTE
NS 134 (mini)

S. Goldberg

THE EYE
NS 137

M. Bruno

LIGHT AND COLOR IN THE OPEN AIR
NS 181 (mini)

K. Gordon

ATOMS, MOLECULES AND THE STRUCTURE OF MATTER
NS 187

S. Goldberg

EARTH AND MOON
NS 191

K. Gordon, R. Reid*

WARFARE IN A FRAGILE WORLD
NS 194

A. Westing

GARDENING, ORGANIC AND OTHERWISE
NS 117

M.B. Averill

FOOD CRISIS: NEW ENGLAND AND THE WORLD
NS 151 (SS 127)

R. Coppinger, F. Holmquist, L. Miller

KNOWING YOUR PLANTS
NS 185

M.B. Averill

ECOLOGICAL OF A NEW ENGLAND HILLSIDE
NS 193

J. Reid, R. Coppinger

NEW ENGLAND WOODLOTS: A NEGLECTED RENOVABLE RESOURCE
NS 195

D. Riggs

SCOTLAND
NS 199 (mini) (OP 147)

C. Van Raalte, R. Lucas

WOMEN AND THE HEALTH SYSTEM
NS 125

J. Raymond

HUMAN MOVEMENT PHYSIOLOGY
NS 130

Ann Woodhull

HUMAN GENETICS
NS 155

L. Miller

MALE AND FEMALE REPRODUCTIVE SYSTEM
NS 189

N. Goddard

DARWIN, COMPETITION AND NATURE
NS 197 (mini)

M. Gross

POPULATION MODELS
NS 198 (mini)

M. Gross

DIVISION II:

COSMOLOGY
ASTFC 20

T. Demis*

GALAXIES AND EXTRAGALACTIC ASTRONOMY
ASTFC 22

W. Demis*

OBSERVATIONAL RADIO ASTRONOMY
ASTFC 38

G. Huguenin*

ASTROPHYSICS II: RELATIVISTIC ASTROPHYSICS
ASTFC 44

R.R. Harrison*

THE COLOR AND LIGHT CIRCUS
NS 210

S. Goldberg, Al Woodhull, A. Hoener, C. Witherspoon

GENERAL CHEMISTRY
NS 204

L. Williams

ORGANIC CHEMISTRY
NS 234

N. Lowry

ALCOHOL
NS 252

M. Gross, N. Lowry

BASIC PHYSICS
NS 282

A. Krass, H. Bernstein, J. Reid, S. Goldberg, K. Gordon

TOPICS IN MODERN CELL BIOLOGY
NS 247

J. Foster, L. Miller, S. Oyewole, C. Van Raalte

READINGS IN BIOLOGY
NS 251 (mini)

J. Foster

TECHNOLOGY ASSESSMENT
NS 279

A. Krass

COMPUTERS IN THE LAB
NS 243 (LC 243)

Al Woodhull, K. Gordon, A. Hanson

STATISTICAL METHODS IN THE BIOLOGICAL AND SOCIAL SCIENCES
NS 253

D. Riggs

MATH FOR SCIENTISTS AND SOCIAL SCIENTISTS
NS 261 (SS 261)

D. Kelly

LINEAR ANALYSIS AND DIFFERENTIAL EQUATIONS
NS 267

D. Kelly

*3-College Astronomy Department Faculty
HISTORY OF ASTRONOMY
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ASTFC 34NS 134
Mini PIGMENTS, DYES, AND THE ARTIST'S PALETTE:
THEORY AND PRACTICE

Stanley Goldberg

This minicourse in the COLOR AND LIGHT CIRCUS will examine the history of theories of color vision and color mixing. Our aim will be to account for the varieties of color that are normally perceived both in light sources and in pigment. Such an accounting should give one the power of control. We will examine the current rival theories which purport to explain the world of color perception. These theories include modified Young-Helmholtz theory and Land theory.

Limit: 10 students/lottery. This minicourse will meet the first six weeks of the semester.

NS 137 THE EYE
Merle Bruno

The part of our eye that we can't see is the part of the eye that sees. The delicate pink retina is made up of several layers of cells that absorb light from the environment, control sensitivity of the eye, sort out colors in the spectrum, and make it possible to read fine print. A great deal is known about how the retina accomplishes this and about the nature of the information it "chooses" to send to the brain. Students in this class will learn a lot about what is known, will find out even more about what is not known, and will try to formulate questions and directions for further research.

Classes will meet twice a week. Part of THE COLOR AND LIGHT CIRCUS.

NS 151 FOOD CRISIS: NEW ENGLAND AND THE WORLD
(SS 127)

Raymond Coppinger, Frank Holmquist, and Lynn Miller

Does the Earth have the resources to feed our growing population? Will "green revolution" technology help? What is the role of New England agriculture, once and future, in our economy? What is the role of political and social structures in agriculture? Can we learn from past "agricultural revolutions" anything to help us plan the future? Are famines agricultural or political? What is the role of climate in agriculture? Why is the "family farm" continuing to decline in numbers?

These are some of the questions that we raise when we join the biological, practical, and social perspectives on the history, present state and future of agricultural systems of the World and New England.

The course will consist of three principal parts each week: (1) lectures, panel discussions, and readings (2 hours); (2) discussion sections (1 hour); (3) project development sessions, to create and criticize examinations, led and organized by students.

There will also be field trips to learn the ecology of New England and New England farms. A partner system will be used for criticizing the papers each student is expected to write. Only full participation in all of these will merit evaluation. Readings will include articles and reprints.

Class will meet twice a week for 1 1/2 hours.

NS 181 LIGHT AND COLOR IN THE OPEN AIR
Mini

Kurtas Gordon

The world around us presents many spectacular light shows: the rainbow, the green flash, and halos about the moon. To name just a few. Have you ever wondered how to explain a mirage? Why the sun appears red and squashed near the horizon? Why the sun's reflection in a wind-rippled lake is drawn out into a line?

We will use these and other observations to illustrate some of the basic laws of optics and to learn about the properties of the atmosphere.

Text: M. C. J. Minnaert, *Light and Color in the Open Air*. Expected student input: Class presentation or write-up of an experiment or observation.

Class meetings: One 1-hr. lecture/demonstration and one 2-hr. discussion/lab per week. This seminar is associated with the Color and Light Course and will meet the first six weeks of the semester.

NS 185 KNOWING YOUR PLANTS
Mini

Mary Beth Averill

This course will be organized around recognition of main plant groups and structures associated with them. During the colder part of the semester, we'll have readings, discussions, lectures on plant groups, plant structure, and plant reproduction. We'll visit some local greenhouses and look at things in the lab. As the weather improves we'll move for longer periods of time, spending as much of it as possible outdoors looking out wildflowers.

Class will meet two afternoons a week. Enrollment limit: 12, first come basis.

NS 187 ATOMS, MOLECULES AND THE STRUCTURE OF MATTER
Mini

Stanley Goldberg

This is a set of modules designed for the student not in science but interested in pursuing from an historical point of view questions in science. The number of students in any module is strictly limited to ten. There are no prerequisites from module to module.

A. The Modern Concept of Elements and the Development of a Theory of Combustion (4 sessions). In this module we will explore the creation of Lavoisier's theory of combustion and illustrate the extent to which it depended on technological developments in the ability of eighteenth century natural philosophers to isolate gaseous products and in the development of chemical balances.

B. The Atomic Molecular Theory (8 sessions). In this module we explore the creation of the atomic-molecular theory. Our basic question will be "If we do believe in atoms, what is the evidence on which such a belief is based, and how has that evidence changed over time?" Do you believe in the atomic theory? Why? We will try to find out.

C. The Structural Theory of Chemistry (8 sessions). In this module we take the atomic theory for granted and show that even so, it cannot deliver its promise of explaining differences in the stuff of the world in terms of unique associations of atoms for each different substance. A further assumption is needed and the one that is found to be extremely useful is to assume that we must take into account the arrangement of atoms in space—that is, we must begin to ask questions about molecular structure. It turns out to be fairly easy, having asked the question, to begin to gather information on what the likely structure of various classes of compounds are. The approach will be quasi-historical although we will concentrate on the logic of the argument.

Classes will meet twice a week for 1 1/2 hours.

interpretation. The purpose of this course is to explore the dimensions of this inadequacy.

This course will focus on four specific areas which are conventionally described in terms of the U.S.-Soviet confrontation: Southern Africa, Cuba, Vietnam and the strategic arms race. It will explore alternative hypotheses for explaining the motivations behind U.S. policies.

Readings will be drawn from both primary and secondary sources and we will concentrate on developing the students' ability to read critically and to formulate his/her own arguments.

SS 180 BLACK WOMEN/WHITE WOMEN
(HA 124)

Gloria I. Joseph and J. Lewis

The design of the course is as follows:

Students will register for the course on Black Women or the course on White Women. They will meet once a week for their respective courses and the second meeting will be a combined class. The intent is to provide the students with an adequate preparation of the course materials to enable critical dialogue. The course, *The Black Woman*, is concerned with the psychological and emotional development of the Black woman within the context of the all encompassing political and economic realities of life for Blacks in the United States.

SS 210 INTRODUCTORY ECONOMICS

Frederick Weaver

An introduction to economic analysis, covering the principles of both major areas of conventional economic theory (i.e., micro and macro); serves as the needed prerequisite to virtually all advanced economics courses and itself contributes to a wide variety of concentration.

The text is R. Lipsey and P. Steiner, *Economics* and the accompanying workbook.

SS 212 WHO BENEFITS FROM RACISM? A WORKSHOP ON THE ECONOMIC FUNCTION OF BLACK POVERTY IN THE U.S.

Lloyd Hagan and Frederick Weaver

The economic "Lies" borne by black communities through racism have been a subject of intense study over the last fifteen years, but there have been surprisingly few attempts to economists to identify with any precision the specific groups in the white community who benefit from the economic function of black oppression. The importance of this knowledge for reducing racism is clear. The purpose of this workshop is to introduce students to the issues involved and to stimulate independent thinking on the subject. After a brief review of the theoretical and empirical dimensions of the problem, we will critically examine works by economists who argue that either white employers, or workers, or consumers, or some combinations of these groups is the major beneficiary of racism. We will also examine those works which maintain that the economic function of racism, while historically important, is clearly of negligible magnitude. We will work hard to show how each author's conclusion is derived from his or her broader conception of the workings of modern capitalism.

SS 225 CULTURE, IDEOLOGY AND IDENTITY

Leonard Glick and Barbara Yngvesson

This course focuses on aspects of the human evolutionary heritage that offer and which are of paramount importance to social and political behavior: ideas about how society works and what links people to each other; basic values and ways of understanding reality. We will begin with a broad historical survey of personal and social identity. Case studies will enable us to think about how these influences operate in contemporary life.

SS 230 ADULT DEVELOPMENT

Louise Farnham

This course will cover adult development, that is, the literature dealing with the part of the life cycle after college. The perspective brought to bear will be primarily that of the social sciences, some material from literary sources and from the natural sciences will be included.

SS 249 THE SOCIOLOGY OF MEDICINE

Robert von der Lippe

The aim of this course is to view health, illness, and the healing professions and institutions from a sociological perspective. The course will begin with a broad historical survey of the first of medicine and its related institutions. Following this, selected aspects of sociological concerns with health, illness, healing professions, organizations and institutions will be discussed. The course will conclude with a brief look at certain future trends in medicine and with sociology's interests in those trends.

SS 253 PERSONALITY, MORAL DEVELOPMENT AND SOCIAL LIFE

Maureen Mahoney

Personality development and socialization can be seen as two ways of conceptualizing the same process. Theories of personality development, however, have traditionally been the domain of psychologists, whereas socialization has been the domain of sociologists. These two perspectives have led psychologists and sociologists to formulate different kinds of questions, but there are several points of intersection. These points emerge in theories that examine the nature of motivation in relation to developing social behavior. Such theories raise questions of moral and cognitive development on the one hand, and the importance of social and peer relations on the other. The process of socialization is then conceived partially as one of learning, and learning, in turn, is seen as participation in social interaction. The sociological rather than individualistic attitude toward personality development leads us to theories of society that also analyze cognitive processes.

We shall examine the interrelation of psychological and sociological theories as they address these issues through the work of Freud, Rousseau, G. H. Mead, Dewey, Durkheim, Parsons, Sullivan, Piaget, and Marcuse.

SS 255 LAW AND LITERATURE

(HA 279)

Lawrence J. Mazor and David Smith

This course will explore several themes related to law as they appear in works of literature. The major themes will include the trial as metaphor, the idea of property, and the nature of justice. We will read and discuss works by L. Carroll, A. Miller, Kafka, Locke, Engels, Gilman, Melville, and Aeschylus, among others.

SS 268 THE STRUCTURE OF ECONOMIC THEORIES

Stanley Warner

The intent of this course is, in the first instance, to develop a firm grounding in a number of economic theories -- theories which address a wide range of economic issues. In the process we will work toward a comparative critique of alternative forms of economic reasoning, addressing both the formal structure of

these theories and the question of what constitutes confuting evidence. Among the theories we will cover are:

--Theories of inflation as a way of introducing some basic questions about how economic theories are constructed;

--Classical and Marxian theories of rent, surplus, and income allocation;

--Two-sector vs. multi-sector models with an emphasis on both input-output and the spatial location of economic activity;

--Econometric models of the U.S. economy with particular focus on the Wharton long-term annual model and the issues of how structural changes are "foreseen" by historically derived relationships.

SS 275 STATE AND SOCIETY

Carol Bengelsdorf, Frank Holmquist, and Joan Landes

The course will examine past and present theories of the capitalist and socialist state (emphasis on the former) and their relation to society. Theories of Hegel, Marx, Lenin, Weber, etc. as well as writers engaged in the current debate will be studied. Specific empirical topics will include a look at one or more socialist states, the cause and nature of the modern capitalist welfare state, American ideology and consciousness regarding the state, the nature of contemporary American class structure, the role and function of American political parties and elections, the current fiscal crisis of the state, and scenarios for the future.

SS 285 AMERICAN INTELLECTUAL HISTORY, 1630-1850

Stephen Nissenbaum

This course tries to bring to intellectual history some of the fruits of the "new social history" and some of the techniques of literary analysis and cultural anthropology. The first half of the course examines colonial America as a pre-capitalist culture, characterized by subsistence production and dominated by household, kinship, and community. Our emphasis in the first month is on the psychological mechanisms by which this order was sustained, especially in seventeenth-century New England: mechanisms that included the deliberate suppression of individual autonomy (self-interest) and family loyalties. We will be reading "The Day of Doom" (a popular Puritan ballad), John Winthrop's "Model of Christian Charity," the lengthy will of Robert Keyne (a rich Boston merchant accused of usury) and some records of the Salem witchcraft trials. In the second half of the course we move into the eighteenth century, tracing the process by which the kinship-group replaced the larger community as a fundamental source of power, and examining early attempts to reconcile self-interest with public virtue. Readings include Benjamin Franklin's Autobiography, some sermons of Jonathan Edwards, and several of the *Federalist Papers*.

The second half of the course scrutinizes in depth the Jacksonian generation (1825-50), for whom the power of family and community alike was dramatically eroded by the pressures of marketplace capitalism and political democracy. Our emphasis here will be on the new middle-class ideology which resulted from this change and which articulated the dramatic psychological adjustments it required: the development of personal autonomy (self-discipline and self-fulfillment) and new feelings about sex, age, and authority. We will be looking in a fresh way at some "classic" works: fiction by Hawthorne and Melville, essays by Thoreau and Emerson, poetry by Emily Dickinson, John Greenleaf Whittier ("Snowbound"), and Clement Clarke Moore ("The Night Before Christmas"). Other readings will include lesser known materials about sexuality, utopian socialism, revivalism, slavery, and phrenology. The course will culminate in a close reading of *Uncle Tom's Cabin*, for an extracurricular assignment of great complexity. In addition to these readings, students may undertake other projects of their own choosing.

SS 295 THE THERAPEUTIC RELATIONSHIP

Eva M. Brown

We will review the nature of the therapeutic relationship from an intrapsychic and interpersonal perspective. There will be a focus on the beginning of a relationship, where attachments form, the middle of the relationship, where patterns of interaction emerge, and the termination of a relationship, where persons separate from one another.

Readings will cover theoretical and clinical material from a psychodynamic viewpoint (Freud), an interpersonal perspective (Sullivan), and from the view of the British psychoanalytic school of object relations (Fairbairn, Winnicott, and Guntrip).

Class meetings will take the form of discussions, with presentations of case material from the readings and one's present field experience. Class presentations will form the basis for written work. Students will be encouraged to relate theory to practice. The seminar is open to students involved in field work experience now or in the recent past. The former will receive preference.

A pre-class interview is requested. Sign-ups: FPM 65. The course will meet on Tuesdays from 10:30-12:30. Enrollment is limited to 10.

DIVISION III

INTEGRATIVE SEMINARS

IN DIMENSIONS OF FREEDOM

Lawrence J. Mazor

This seminar will explore the meaning of freedom in several different philosophical forms and cultural traditions. We will focus especially on two of the more recent versions of the concept of freedom, liberty and liberation, through the writings of Locke, Mill, Marx, Nietzsche, and contemporary feminist and anarchist.

IN RESEARCH SEMINAR: ALTERNATIVE LIFE STYLES/SEXUAL PREFERENCES OF BLACK WOMEN IN TODAY'S AMERICA

Gloria I. Joseph

The course will consist of data collection and analysis. The purpose of the course is two-fold: to further develop and refine skills in research methodology and data interpretation; and to gain new and insightful understanding about the social/sexual attitudes and values of Black working class women. The question of class will be central to the researched topics. The course is limited to 10 students since extremely careful supervision is a must. Enrollment by permission of instructor. Course contact hours will be arranged.

IN CASE STUDIES IN EDUCATION

Ellen Conroy and Hedy Rose

This course will attempt to highlight the philosophical, psychological, sociological, and social policy issues and assumptions underlying various educational structures and strategies experienced or observed by members of the seminar. The goal is to help participants critically examine these often implicit assumptions. The seminar is primarily for those actively involved in field work relating to education studies.

IN LOGIC OF SOCIAL SCIENCE ANALYSIS

Barbara Linden and Robert von der Lippe

Participants in this seminar will be responsible for presenting an extensive and detailed summary of their Division III work in progress. We will be focusing specifically on questions relating to the logic of analysis, use of empirical data, and organization of evidence. Background readings (such as Nagel's *The Structure of Scientific Inquiry*) will emphasize the use of evidence and interpretation in the social science disciplines. All participants will be expected to familiarize themselves with the other students' work and with the necessary theoretical and empirical background for critical commentary following the presentations. The course will be limited to students in the advanced stages of their Division III projects.

OUTDOORS PROGRAM

ECOTALK

OP 147 (NS 199)

C. Van Raalte

R. Lutts

THE LITERARY NATURALISTS

OP 210

R. Lutts

ENVIRONMENTAL EDUCATION SEMINAR

OP 240

R. Lutts

OP 147

(NS 199)

ECOTALK (mini-course)

Charles Van Raalte and Ralph Lutts

There are many ecological terms (i.e. population explosion, niche, recycle) which lately have become household words. How did some of these terms - and the concepts behind them - originate? What does an ecologist mean by "the environment" and how does this differ from the concept of the word "our" and how does this differ from the concept of the word "us"? This is to introduce students to ecology by starting with already familiar concepts and developing these ideas. Class will be in the form of lectures and discussions of topics. Students will be expected to write several short papers and help to build an "ecodictionary". We will use several ecology texts as reference but we will be mostly working from popular and scientific articles. Class will meet twice a week for 14 hours. This mini-course will meet for the first six weeks of the semester.

OP 210

THE LITERARY NATURALISTS

Ralph Lutts

We will examine the professions of the naturalist (scientist, educator, and writer) with special emphasis upon that of the literary naturalist. The works of the literary naturalist focus upon the human experience of nature. The best of them are a skillful blend of science and artistry. We will examine the works of a wide variety of naturalists, particularly those of the late 19th-century and the 20th-century. Authors will include White, Thoreau, Darwin, Hudson, Fabre, Muir, Burroughs, Beebe, Leopold, Carson, and others. Students will do a lot of reading, some biographical studies, nature writing of their own, and a detailed study of a relevant topic of interest to them. We will also get out to see some nature on our own.

OP 240

ENVIRONMENTAL EDUCATION SEMINAR

Ralph Lutts

This seminar is designed to provide a flexible format within which people who are interested in environmental education (EE) can gather to share ideas and resources, and expand their understanding of the field. Readers and guest speakers will be planned for the first few weeks and the following weeks will be planned by the group. In addition to taking part in the seminar meetings, students will prepare an annotated bibliography, a statement of their personal philosophy of EE, and a semester project. The project may be a research paper, teaching in the community, or some other activity related to EE. What are your goals and interests, and what do you want to accomplish this semester? Your answers will be important guides for the seminar and we will discuss them during the initial meetings.

