

course guide

spring term • 1975

hampshire college

AMHERST, MASSACHUSETTS 01002

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REGISTRATION DATES AND CALENDAR

1974

Thanksgiving holiday	Wednesday, November 27 - Sunday, December 1
Advising and pre-registration for Spring Term	Monday, December 2 - Friday, December 13
Evaluation period for classes and projects	Monday, December 16 - Friday, December 20
Last day of academic activity	Friday, December 20
Winter recess	Saturday, December 21 - Wednesday, January 1

1975

January Term	Thursday, January 2 - Wednesday, January 29
Inter-term recess	Thursday, January 30 - Sunday, February 2
New students arrive	Monday, February 3
Registration for new students	Tuesday, February 4
Classes begin	Wednesday, February 5
Drop-add period	Wednesday, February 5 - Friday, February 14
Washington's birthday (no classes)	Monday, February 17
Examination day (no classes)	Thursday, February 20
Spring recess	Saturday, March 22 - Sunday, March 23
Examination day (no classes)	Tuesday, April 8
Pre-registration for Fall Term	Monday, April 21 - Thursday, May 1
Examination day (no classes)	Friday, April 25
Evaluation period for classes and projects	Wednesday, May 14 - Tuesday, May 20
Last day of classes	Tuesday, May 20
Examination period	Wednesday, May 21 - Thursday, May 29
Last day of academic activity	Thursday, May 29
Commencement	Friday, May 30

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.



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 them 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 close examination of particular topics of study in courses or seminars. The Divisional framework, which replaces the conventional freshman-senior sequence, is designed to accommodate individual patterns of learning and growth. 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 one of the four School Advising Centers for initial advice on choice of courses and other academic matters. After several weeks, all students choose an adviser from among the faculty or from among other qualified staff. Changing of Advisers is a relatively simple process done through the Assistant Dean for Advising (Kenneth Hoffman). Dean Hoffman also assists students who are having problems with progress through concentrations, working with both students and Advisers. Ruth Washington, Academic Counsellor (Prescott House), also helps students with academic problems, especially Third World students. Joanne Hadlock (Cole Science Center) offers advice and assistance in the areas of graduate school application, career counselling, and job placement. Robert Pak (Harris) is the Third World Advising Center. Elizabeth Pyramis (Globe Science Center) offers help with leave placement and with field placement. The Cole and the Harris Advising Centers, along with the Third World Advising Center, are sources of assistance for Division II and III students, as well as more general advice on the academic program available at Hampshire and at the other colleges in the Valley.

SCHOOL OF HUMANITIES AND ARTS CURRICULUM STATEMENT

In these course listings you will find a quite astonishing range of offerings for the Spring Term. Remember this at the outset: as you begin to plan your studies for Division I: the courses in Basic Studies 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. There is something like a Copernican revolution going on here--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 whole phenomenon of Man.

There are observably different ways in which the artist and the 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.

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 it will be such 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 will be the same, but the style of work will involve more giving 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 you in this School are most eager to try this academic experiment of putting the Humanities and the Arts to work together because we share the sense of Erich Fromm of the good that "flows from the blending of rational thought and feeling. If the two functions are torn apart, thinking degenerates into nihilistic intellectual activity, and feeling degenerates into neurotic life-damning passions."

SCHOOL OF HUMANITIES AND ARTS

DIVISION I

AMERICAN MUSIC
HA 101

THE LITERATURE OF THE CARIBBEAN
HA 107

FILM WORKSHOP I
HA 110

INTRODUCTION TO PSYCHOTHERAPY
HA 111b

GODS, BEASTS, AND MEN: THE BEGINNINGS AND THE END OF POLITICAL THEORY
HA 121 (SS 122)

PAINTING
HA 122

ANXIETY AND OTHER CONSTRAINTS AGAINST SANITY IN GROUP LIFE
HA 126

THE MYTH OF ME: AN EXPERIENTIAL EXPLORATION
HA 137

THE MAKING AND UNDERSTANDING OF HUMAN ENVIRONMENT: APPROACHES TO DESIGN
HA 145

STILL PHOTOGRAPHY WORKSHOP
HA 150

WHAT IS PHILOSOPHY?
HA 162

PRE-REVOLUTIONARY RUSSIA: MYTH, IMAGE AND IDEA
HA 164b

Barndt-Webb

Marques

TBA

Boettiger

Meagher

Murray

Spahn

G. Gordon,

L. Gordon

Juster, Pope

Enos

Bradt

J. Hubbs

DIVISIONS I AND II

GRAPHIC DESIGN STUDIO
HA 109 (HA 209)

STUDIO EXPERIENCE IN DANCE - *Included Dance Tech.*
HA 115 (HA 215)

SCENE STUDY
HA 146 (HA 246)

HISTORY OF PHOTOGRAPHY
HA 156 (HA 256)

CHEKHOV, OUR CONTEMPORARY
HA 161 (HA 211)

AN AURAL APPROACH TO MUSICAL FORM
HA 176 (HA 276)

HOW BACH DID IT: TECHNICAL ASPECTS OF MUSIC
HA 185 (HA 285)

POETRY TODAY: THE TECHNICAL AND PHILOSOPHICAL REEVALUATIONS OF THE 1960'S AND 1970'S
HA 187 (HA 287)

Kibbey

F. McClellan

O'Brien

Liebling

C. Hubbs

R. McClellan

R. McClellan

Benedikt

TBA

Schrock

D. Smith

TBA

F. McClellan

Lyon

Liebling

Enos

Pitckethly

Benedikt

D. Smith

Juster, Pope

Bradt, Meagher

Kennedy

Bradt

Cloud

Kibbey

C. Hubbs

Hoener, Murray

Benedikt

J. Hubbs

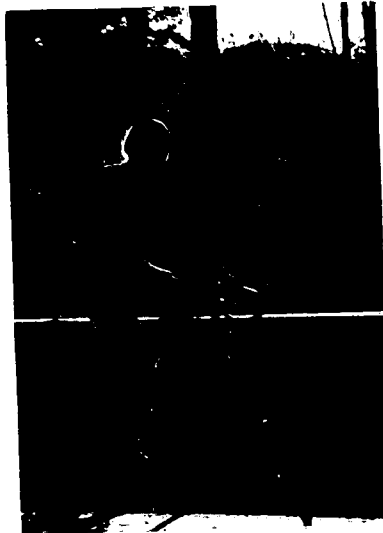
Kennedy

Bongeladorf,

Pitckethly

Marques

Halacy



HA 101

AMERICAN MUSIC

Miriam W. Barndt-Webb

From the colonial period through Joplin and Ives. A study of the development of music in America, including European influences, religious sects, some non-western influences, folk and popular music of the 19th century. The course will meet for sessions twice a week. Performance will be involved, but performing skill is not a pre-requisite. Some field trips if budgets allow.

Enrollment is open.

HA 107

THE LITERATURE OF THE CARIBBEAN

Robert Marques

This course will consist of selected readings in the literature of the Caribbean archipelago. Our primary interest will be to search out and analyze the more common preoccupations manifest in the writing of the islands and, more particularly, with the specific treatment they are given by individual prose writers envisioned by these writers. The question of approach, the problems of place and identity, will, in turn, be related to the question of style and technique. While much of our emphasis will be on the Spanish-Speaking Antilles, we will be equally concerned with the work of writers from the Anglophone and Francophone islands.

The course will meet once a week for two hours; in addition each student will meet with me in occasional conferences to discuss the course work, readings, papers, projects... There is no foreign language requirement. This is an open course.

HA 110

FILM WORKSHOP I

Instructor to be Announced

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 16-mm production.

The past 75 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 own film.

The class will meet once a week for a four-hour session. Enrollment is limited to 12.



HA 11b INTRODUCTION TO PSYCHOTHERAPY

John R. Boettiger

The second half of a two-term course of lectures, readings, discussions and films on the theories, practices, aims and achievement of modern psychotherapy. Experience of the Fall Term of the course will be valuable background but is not a prerequisite for enrollment in the Spring Term.

In the Spring Term we shall explore:

- family therapy
- the revisionist psychiatry of R. D. Laing
- Carl Rogers' client-centered therapy
- the bioenergetic heirs of Wilhelm Reich
- gestalt therapy
- Alan Watts on "psychotherapy East and West"
- movement therapy
- psychodrama
- LSD psychotherapy

The class will meet three times weekly for 90-minute sessions: two weekly meetings of the whole class and one weekly small group discussion. Enrollment is limited to 120 students.

121/SS 122

GODS, BEASTS, AND MEN: THE BEGINNINGS AND THE END OF POLITICAL THEORY

Robert E. Meagher

In order to situate ourselves politically in a thoughtful manner it is well to realize that, as historical mappings go, the emergence and demise of political theory lie beneath the emergence and demise of political theory. The Greek and us. Political philosophy begins with the city, the Greek polis, a place for neither gods nor beasts but for men. Accordingly, Plato and Aristotle, a man who is little more than a man, is unsuited for life in the city; whereas the man who is little less than a god has no need for the life of the city. It is men whose lives fall with modesty and moderation between the address of passion and the madness of thought who require the polis as a place of light and speech to illuminate and to articulate their lives and to bring them into being. From there our political path leads eventually to the denial of the primacy of the possibility of thought and it remains for man only to calculate his power and his own immediate benefit. We will follow the rough outline of that path from wisdom to power, the radical privacy of the human. Our principal readings will be: Plato, *The Republic*; Thomas More, *Utopia*; Machiavelli, *The Prince*; Thomas Hobbes, *Leviathan*; Karl Marx, *Economic and Philosophical Manuscripts*; and *Toothless Stones: Rethinking the Political*, ed. Robert Meagher. Our final aim will be to question both in theory and in practice whether it is responsible to speak of the end of political theory, or to let others speak of it, or to live as if the only appropriate or possible objects of political thought and speech are privately calculated and fully practicable benefits. However, this aim, if reached, will be the fruit of an arduous route through rewarding but wearying work.

This course will meet twice weekly for two hours and is unlimited.

HA 122

PAINTING

John Murray

This course will deal with involving untried or tentative painters in the experience of painting. The emphasis will be on painting as process rather than product. An investigation of color, space, and form will take place through learning to see and feel what is happening in each student's work as his/her visual painting ideas develop.

Group interaction and observation concerning the work done will be an important part of the learning experience. It will be expected that the actual painting will be done outside of class and class time will be spent looking at and talking about work. Problems may be suggested to individual students at times throughout the semester when they seem relevant. The choice of media will be up to each student.

The class will meet twice a week for 2 1/2-hour sessions. There will be an enrollment limit of 15 students. Instructor selection.



HA 126

ANXIETY AND OTHER CONSTRAINTS AGAINST SANITY IN GROUP LIFE

Richard Spahn

The modes of inquiry will be experiential and conceptual. Experimentally, students will participate in an on-going group which will manifest in behavior the phenomena under investigation. Students will become aware of and study their own individual experience while observing the behavior of the whole group (as a synergic system-entity). Conceptually, the exploration will be supported primarily by readings and discussion of the English Psychoanalytic approach to the theory of groups centered in the work of Melanie Klein, Wilfred Bion and A. K. Rice.

Experientially, the topics to be investigated include:

- the sources of anxiety in groups
- the most widely employed mechanisms for avoiding the acknowledgment of anxiety in groups
- the transfer of anxiety in groups

Conceptually, the topics to be investigated include:

- the sources of individual anxiety and its relation to anxiety in groups
- the implications of the theory of anxiety transfer for an understanding of families, task groups and organizations
- the application of basic group theory to the possibility of interventions in support of sanity in all kinds of groups.

The last issue approaches the realm of the possibilities for practitioners: skill-acquisition. While this is not intended as a primary goal, the mode of inquiry will provide students with an opportunity to pursue an enhanced awareness skill generalizable to any discipline involving learning from experience, i.e., the ability to act and observe oneself in action at the same time.

The group will meet once a week for 2 1/2 hours. Enrollment is open.

HA 137 THE MYTH OF ME:
AN EXPERIMENTAL EXPLORATION
Graham and Linda Gordon

The place of myth has always been central to man's efforts at self-understanding. From the tribal campfire where the tales were shared which spoke of origins and meanings for the tribe, to the favorite stories we remember from our own childhood, our understanding of who we are is enhanced as we explore and share the personal myths that have meaning for us.

We will attempt in this course, through the use of varied methodologies, to bring alive the "myths" that have been significant to our journey to becoming who we are today. We will awaken our bodies and senses, and we will attempt to recall and reintegrate the significant pieces of our past experience. We believe this to be a unifying process that leads to better understanding of our present self, and therefore, more options as to who we shall become. Participation in this course will include the creation and sharing through some medium of each person's own updated "myths of me."

We will focus on looking at our personal experience, deriving meanings from it through our shared reflections in a class. We will utilize a variety of resources, including: art, poetry, film, folklore, bioenergetics, gestalt, and common readings.

This class will meet each Monday, from 7:30 - 10:30 p.m., and is limited to sixteen participants. Admission will be determined by interview.

HA 145 THE MAKING AND UNDERSTANDING OF HUMAN
ENVIRONMENT: APPROACHES TO DESIGN
Norton Juster and Earl Pope

This course deals with the perception, awareness, analysis, and design of human environment--the ways in which human activities and needs find expression in forms and patterns that reflect and shape their lives. We will be concerned with a developed sensitivity to surroundings, an understanding of place, and the sense of the individual as an effective force in creating or altering his own environment.

This is primarily a workshop course. Using direct investigation, research, and design projects of a non-technical nature to confront and expose environmental problems and to understand the approaches and creative processes through which environment is made. The subject of these investigations will include:

1. How man sees and perceives his environment.
2. The identification of human needs, the functional and emotional concerns of environmental design--problem seeking and problem definition.
3. The vocabulary of environmental design--visual thinking and visual communication.
4. Environmental problems today--our legacy from the past and directions for the future.
5. The scale of human environment--rural to megapole.
6. Creative synthesis--the leap to form. The translation of ideas, analysis, program and technical parameters into environment.

Much of the work will require visual presentation and analysis; however, no prior technical knowledge or drawing skills will be necessary. (Ability to use a camera would be helpful.) The student must provide his own drawing tools. Projects and papers will be due throughout the term. This course demands both time and commitment.

The class will be divided into two sections that will meet simultaneously. There will be two three-hour meetings per week plus occasional field trips, special services, and problems (to be mutually determined). Enrollment is limited to 24 (12 per section).

HA 150 STILL PHOTOGRAPHY WORKSHOP
Chris Enos

The photograph as Art and communication--its production and implications.

Photography has become one of the primary means of visual experience today. The directness and impact of the photograph makes an understanding of its techniques indispensable to the artist, teacher, and student. So varied is the use of photography in all areas of human endeavor that the need of a "visual literacy" becomes of basic importance.

The course is designed to develop a personal photographic perception in the student through workshop experiments, discussion of history and contemporary trends in photography, and field problems to encourage awareness of the visual environment.

A \$15.00 laboratory fee is charged for this course. The College will supply chemicals, laboratory supplies, and special materials and equipment. The student will provide his own film and paper.

The class will meet once a week for four hours plus lab time to be arranged. Enrollment limited by instructor approval.

HA 152 WHAT IS PHILOSOPHY?
Laymond Perryon Brade

What is philosophy? As perhaps to ask, what is the love of wisdom? As a person is at it, it is at least to ask, what is the love of wisdom? As a person is at it, it is at least to ask, what is the love of wisdom? As a person is at it, it is at least to ask, what is the love of wisdom?

The history of philosophy can be regarded as a quest undertaken to discover and to reveal in the fullness and in the full reality of its nature, the nature of wisdom. The questions which specify the direction and the order of that quest seem to be perennial ones, questions about the fundamental nature of being, of its intelligibility and of its life, and questions about the intelligence and its relationship to being. It is perhaps here that the life of the intelligence is revealed, in its love for being. If this is the case then there is an integral relationship between love and life and truth and being. To know the truth would be to know what love is, and life, and being.

This course will undertake a quest for that knowledge. Its movement will be an ordered pattern of development whose historical origins will include Lao Tzu, Confucius, the Taoists, the Buddhists, Buddhist Scriptures, the Bhagavad-Gita, Gnosticism, Platonism, Hermeticism, Plato, Aristotle, Aquinas, Descartes, Kant, Hegel, Kierkegaard, and Heidegger. The purpose of the course will be, historically, to grasp the development of the quest, and reflective, to grasp the inner logic of its development, and there is an inner logic to be found. If there is, that then there is the logic of the movement of wisdom itself, and of its love. It will attempt as well to be the movement of the course. Class will meet twice a week, two hours per meeting. Enrollment is open.

HA 164 PRE-REVOLUTIONARY RUSSIA:
MYTH, IMAGE AND IDEA
Joungie Hubbs

The second part of a two-semester course in Russian cultural history offered as an alternative to traditionally oriented historical studies in that it will focus on certain mythological patterns and motifs to evoke Russian culture.

The second semester will cover the period from Peter the Great to the Revolution. We will continue to trace the "mythologems" of Old Russia--the Great Mother and her dying son-god, the Tsar as Christ and warrior, the theme of Holy Russia, etc.--through the study of the art, music, and literature of 18th and 19th century Russia.

Students not enrolled in the first semester course must have permission of the instructor to enroll in this second part.

The class will meet twice a week, with occasional evening sessions for viewing of films. Enrollment is limited to 16 students.



HA 169 GRAPHIC DESIGN STUDIO
David Kibbey

The mission of the graphic designer is to develop visual organizations that will expand upon a written message or to present an aspect of that message that cannot be completely conveyed with words. This course is involved with the process of developing visual information through the application of design principles, typography and illustration.

Students will be encouraged to design and print posters for clients through Hampshire Graphic Design and to become involved with the organizational structure of this on-campus design service. Through an apprenticeship program students will have the opportunity to deal with the artistic problems that are presented by a client and to engage themselves with the financial and production problems of a small business.

The class will meet twice a week for 2-hour critique and work sessions. 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 20 students.

HA 115 STUDIO EXPERIENCE IN DANCE
Francie McLellan

This course in dance technique will be divided into three sections:

- | | |
|-------------------------|--|
| Section 1: Beginning | - one hour, twice weekly |
| Section 2: Intermediate | - one hour, twice weekly |
| Section 3: Advanced | - one hour and a 1 1/2 hour class per week |

This course, which may be taken as a fourth course, will focus primarily on the physical dimension of dancing movement. It is open to students of all divisions and at all levels of proficiency.

Enrollment is open.

* Advanced Division III students will assist in teaching this course.

HA 166 SCENE STUDY
Ilan O'Brien

This is a workshop based on the techniques developed by Konstantin Stanislavski at the Moscow Art Theatre and modifications of the system undertaken by Eugene O'Neill, Boris Moore, and Michael Chekhov.

The purpose of the course will be the development of an actor's ability to create a character from a written script, to understand the character's motivation and to create a believable performance of the character.

The course will be a workshop in which the student will be able to work with a script, to understand the character's motivation and to create a believable performance of the character.

The class will meet twice weekly for 1 1/2-hour sessions. Enrollment is limited to 20 students, and permission of the instructor is necessary.

Note to the College students: All theatre courses at Hampshire carry only pass/fail grades for non-Hampshire students.

HA 156 HISTORY OF PHOTOGRAPHY
Jerry Liebling

A critical survey of the most active movements in the contemporary photographic experience.

The course is designed to work from the present movements and vocabulary of the students back through the history of photography as art, magazine, popular culture, etc., to some of the roots of the movements.

The student should develop a more critical vocabulary as well as a historical perspective and understanding of one of the 20th century's most widely circulated phenomena - the photograph.

Enrollment is limited to thirty students. The class will meet once a week for two hours.

HA 161 (HA 261) CHEKHOV, OUR CONTEMPORARY
Clay Hubbs

"Life," said Chekhov, "is an insoluble problem." Shortly before his death, in 1903, his wife asked him what he thought the meaning of life was: "You ask me what life is? It is like asking what a carrot is. A carrot is a carrot, and nothing more is known." His plays do not tell stories or describe personal histories--there is little action. "Life on the stage should be as it really is and the people, too, should be as they are and not artificial. A play ought to be written in such a way that people should come and go, dine, talk of the weather, or play cards, not because the author wants it but because that is what happens in real life."

Although Chekhov offers no direct answers to such questions as "What is the meaning of life?" more and more audiences and readers believe he has something important to say. In this seminar we will study Chekhov's major dramatic works, read his letters and biographies, and examine the tradition from which he was writing in an attempt to see what that something is and how Chekhov goes about saying it. At the same time and alongside the works of Chekhov, we will study the major works of some important playwrights of our own time: Beckett, Genet, and Pinter. A comparative approach should not only help us to better understand the attitudes and methods of Chekhov's theatre but also that of our own time.

Supplementary reading will include modern directors and theoreticians and other playwrights, both our contemporaries and Chekhov's.

The seminar will meet twice a week for two-hour sessions and is limited to 16 students. Division III students who wish to enroll (with instructor's permission) should expect more and a wider range of reading and an extra weekly session.

HA 176 (HA 276) AN AURAL APPROACH TO MUSICAL FORM
Randall McLellan

This course has two goals: first, to familiarize ourselves with the principal forms of Western music and the techniques employed for the analysis of these forms; and second, to develop the ability to perceive the structure of a composition through aural analysis. Working with written scores we shall study the principal traditional forms, the smaller components within these forms, the influence of style characteristics on form, the growth process of a musical idea, harmonic analysis, melodic analysis, and the aesthetics of forms. With this intellectual knowledge as background, we will then develop our ability to recognize and follow the unfolding structure of a musical composition as it is heard.

Although there are no prerequisites for the course, the ability to read musical notation is essential and a familiarity with basic harmonic terminology is recommended. We will meet twice weekly for two hours each time. Enrollment is open.

HA 185 (HA 285) HOW BACH DID IT:
TECHNICAL ASPECTS OF MUSIC
Randall McLellan

Johann Sebastian Bach stands as a unique figure in the history of Western music. Culminating a 500-year evolution in polyphonic composition, he codified the harmonic practice of his time and, in so doing, his style became the basis for the music of the next 200 years. What is the secret of his style? What is the nature of his harmonic-polyphonic language?

For one term we will try to become "J.S.B." In an attempt to gain insight into Bach's style, we will try to do as he did as he composed. The essence of his style is crystallized in his 371 chorales and in his Two-Part Inventions. We will study these aspects of his work through analysis, draw the basic principles from our study, and attempt to compose a chorale and an invention on those principles. Our texts shall be the Riemann edition of the Bach Chorales and the Two-Part Inventions.

The class will meet twice weekly for 1 1/2-hour periods. Prerequisite: ability to read music and a familiarity with the fundamentals of music.

Enrollment is open.

HA 187 (HA 287) POETRY TODAY: THE TECHNICAL AND
PHILOSOPHICAL EVALUATIONS
OF THE 1960's AND 1970's
Michael Benedikt

The emergence of new styles and the consequent obliteration of older approaches is not an issue (sometimes a life-and-death issue, quite literally and materially) for practically every poet who has ever written. That the history of poetry is often a history of extraordinary-even scandalously convulsive-upheavals of style is with equal frequency obscured by the memory of the safety of dunces or even counterexamples of hindsight. Writers still reflecting American reality or (as oftentimes happens) attempting to involve an American anti-reality; our poets have always been particularly apt to take creative vision educationally assigned to discover the reader and writer of contemporary poetry with a view to the changes which have occurred in the past few decades. The changes which have occurred in the past few decades. The changes which have occurred in the past few decades.

The emergence of new styles and the consequent obliteration of older approaches is not an issue (sometimes a life-and-death issue, quite literally and materially) for practically every poet who has ever written. That the history of poetry is often a history of extraordinary-even scandalously convulsive-upheavals of style is with equal frequency obscured by the memory of the safety of dunces or even counterexamples of hindsight. Writers still reflecting American reality or (as oftentimes happens) attempting to involve an American anti-reality; our poets have always been particularly apt to take creative vision educationally assigned to discover the reader and writer of contemporary poetry with a view to the changes which have occurred in the past few decades. The changes which have occurred in the past few decades. The changes which have occurred in the past few decades.

The class will meet once weekly for two hours. Enrollment is open - instructor selection.

HA 259

HUSSELI AND HEIDEGGER

Raymond Kanyen, Srach

It would be possible to conceive of the movement of thought established by Husserl and Heidegger as a circular one. The movement of each thinker would constitute half the movement of the circle's circumference. Husserl's phenomenological epoché would establish the initial movement from the being of the objective world to that of concrete transcendental subjectivity and intersubjectivity. Heidegger's philosophy would reestablish subjectivity as Dasein, as "being-in-the-world." The entire movement would ground objectivity in its subjectivity and, conversely, subjectivity in its objectivity.

A more adequate image of that movement, however, would be a two-fold one. It would begin from the circumference of a circle, moving therefrom to its center. This movement would establish this centered world in a further, grounding, center, the center of centers: being itself. Herein, however, the entire movement involutes, so that the grounding center becomes one with the circumference, the movement, and the center itself, and these converge become one with it. The first movement would establish being in its temporality, the second movement would establish the temporality of being in its being.

Even this image is inadequate, however, to characterize the thought of Husserl and Heidegger. Perhaps only a synthesis of the two images would be adequate, but that synthesis would be impossible in image, possible only in reality. The movement of the course will be toward that. Its readings will include Husserl, *Ideas, Cartesian Meditations*; and Heidegger, *Being and Time*, *Time and Being*, and *What Is Called Thinking?*

Enrollment is limited to twelve students. Class will meet once a week for four hours.

HA 262

REHEARSAL AND PERFORMANCE

Liam O'Brien

This will be a fully mounted production, directed by the instructor, with actor casting at the beginning of the Spring Term, and technical positions by interview at the close of the casting period. The class will meet nightly 7:00-11:00, Monday through Friday, until opening. The show to be mounted will be announced the first week of the Spring Term.

Enrollment will be limited by the number of roles to be filled. Audition and interview with the instructor is required.

Note to Five College students: All theatre courses at Hampshire carry only pass/fail grades for non-Hampshire students.

HA 264b

WIT, VISIONS AND ALIENATION

Jess Cloud

After investigating English Renaissance poetry and drama in the Fall Term, we shall continue to explore the turning glass of the literary imagination. During the Spring session we shall concentrate on the vital change that occurred around 1800 and then deal in some depth with the literature of this century.

In the romantic period, we shall look at the roots of the literary revolution that emerged after the Enlightenment. We shall consider: what is the subject-object problem? why does the concept of art change from the mirror to the lamp? what visions are evoked by writers such as Blake and Keats? what happens to rhetoric?

In the contemporary world, we shall read Joyce, Eliot, and Dylan Thomas, exploring the theme of alienation and some of the "anarsars" implicit in the works of these writers. Questions to be considered are: how do authors meet the problem of a fragmented world? what myths do they invoke to give resonance and structure to their poetry and prose? what is the role of art in modern society?

The course will be given in two one-and-one-half-hour sessions per week. Everyone will be expected to participate intensively in the discussions. Enrollment is open.

HA 268

STUDIO WORKSHOP IN SCULPTURE:
GROUP INDEPENDENT STUDY

David Ribbey

A studio-workshop relationship of individual consultation for guidance, technical advice and professional critical discussion must be set up. Students' individual needs and plans would be considered. The only regular meetings required are a group meeting for such special events as guest-artist presentations, field-trips to exhibitions or artists' studios and technical demonstrations.

The essence of this element of the program would be continued work in the studio and personal interactions among the students themselves, the faculty and outside people and resources within reasonable availability.

Enrollment will be by permission of the instructor.

HA 275

RECENT AMERICAN FICTIONS

Clay Hubbs

Traditionally, the novel has been seen as a way of ordering reality, taking something called life and giving it shape and congruity. A concern with absurdity—the idea that life might be meaningless and therefore lack shape and congruity—is not new in the novel, certainly not in the American novel. One thinks of Melville, Twain, Hemingway, Faulkner. But in earlier works the subject matter was seldom wedded to the form, whereas in what John Barth calls our contemporary "literature of exhaustion" there often seems to be an attempt to do just that. One way to come to terms with the discrepancy between art and "the Real Thing" is to affirm the artificial in art and make artifice part of the point, to see fiction about all as a linguistic phenomenon. There are other ways, and we will explore them in our readings.

We will begin with a novel by Samuel Beckett, *Molloy*, and some fundamental questions concerning the nature of fiction—why it is written and read, what are its traditional components, how it can best be discussed—before attempting to see how and why the recent fiction tends to differ from the "conventional." The initial concern will be to establish a critical vocabulary and an overview of the novel form before singling out for study special kinds of approaches to the ordering of reality. The reading list will include Dostoevsky, *Notes from Underground*; Mann, *Felix Krull*; Camus, *The Stranger*; and a representative selection of recent works by American writers including Belloc, Low, Donleavy, Burroughs, Gass, Barth, Pynchon. The American low, Donleavy, Burroughs, Gass, Barth, Pynchon. The American low, Donleavy, Burroughs, Gass, Barth, Pynchon. The American low, Donleavy, Burroughs, Gass, Barth, Pynchon. The American low, Donleavy, Burroughs, Gass, Barth, Pynchon.

The class will meet twice weekly for two-hour sessions. Enrollment is limited to 20 Division II students.

HA 280

STUDIO ART WORKSHOP

Arthur Hoerner and Joan Murray

The major concern of this workshop will be to develop a critical aesthetic to reinforce the work produced in the studio. The students will develop their own course of study in the areas of painting, sculpture or printmaking and meet as a group for regular critique sessions.

The class will meet twice a week for two-hour sessions. Enrollment is limited to 14 students.

HA 281

EDITING/CONTRIBUTING TO THE LITERARY MAGAZINE

Michael Benedit

Designed for writers of both poetry and prose as well as editors-to-be, this course will focus—in a binocular-like way—on both the philosophical and practical issues related to bringing out the literary magazine.

We will begin at the beginning. Students and instructor will examine and evaluate a wide range of college and other literary magazines, the established as well as those newly published—i.e., those mainly printing the work of younger writers. In line with this, students should be prepared to purchase and exchange, in a cooperative manner, magazines on both the college and professional level: everything from *Pebble* and *Skunkweed* to *The Parisian Review* and *The American Poetry Review*. From time to time, the instructor will make available otherwise unavailable material from his own library, amassed as a consultant to both the College and National literary magazine contests/awards of the Coordinating Council of Literary Magazines.

This course is based on the principle that standards in this traditionally chaotic field are beginning to exist; and that while "to know is not enough," it helps to learn from the achievements or errors of others in the area of concern, for young writers as well as editors. Practical questions to be considered will be: (1) what the scope of a Hampshire literary magazine might best be, (2) what a Five College magazine might entail, (3) what expectations of national success a college-based magazine deriving from the *Amherst* area—yet reaching beyond it—might possibly be.

The class will meet once a week for two hours. Enrollment is limited to 10, and an interview with the instructor is required.



HA 284

ORIGINS OF ROMANTICISM

Joanna Hubbs

The Romantics are often described as the rebellious children of the rationalists of the Enlightenment. The seminar will focus on the nature of this relationship as reflected in the rise of the novel in France and Germany. We will consider this emerging literary genre as a vehicle for the ideas of the philosophes of the Enlightenment and will examine the extent to which their attempts to build a world view on a rational-empirical foundation led to the formulation of Romanticism.

Readings will include:

Montaigne, *Persian Letters*
Voltaire, *Candide*
Rousseau, *Nouvelle Héloïse*
Diderot, *Rameau's Nephew*
Laclos, *Liaisons Dangereuses*
Sade, *Justine*
Goethe, *Sorrows of the Young Werther*
Faust

The class will meet twice a week for two hours. Enrollment is open.

HA 289

SHAKESPEARE AND WOOLF

L. Brown Kennedy

Lovers and mad men have such seething brains,
Such shaping phantasies, that apprehend more
Than cool reason ever comprehends.
The Lunatic, the Lover and the Poet,
Are of imagination all compact.

(A Midsummer Night's Dream)

In the first part of the course we will read Shakespeare (*Twelfth Night*, *As You Like It*, *Lea*, *The Tempest*, and possibly *Hamlet*) and in the latter part Virginia Woolf (*Mrs. Dalloway*, *To the Lighthouse*, *Orlando*, *A Room of One's Own*, and selected essays).

Our main focus will be on the texts, reading them from several perspectives and attaching attention to their widely different literary and cultural assumptions. However, one thread tying together our work on these two authors will be their common interest in the ways human beings lose their frames of reference and their sense of themselves in madness, love and find their selves in love or in sexuality, and find or make both self and world in the shaping act of the imagination—in writing, in poetry, or in art.

Students will be asked, accordingly, to themselves give shape to three or four short papers.

The method of the course will be: directed close reading, discussion, and periodic lecture.

The class will meet twice weekly for 1½ hour sessions. Enrollment is limited to 25.

HA 294 (SS 222)

MARXIST AESTHETICS

Carol Bengelsdorf, Lawrence Pickett's, Jessica Spohn, Phil Kudla, Peter Brosius, and Jim Gold

This is a course about radical perspectives on the Arts. Marxist Aesthetic is a way of understanding all artistic life both theoretically and practically. It explains, for example, the contradictions of the writer in capitalist society from Balzac to Beckett and shows how some writers like Brecht or Neruda have tried to break out of that strait-jacket for revolutionary reasons. It analyzes, in other words, the relation between the forms that a society or system imposes on an artist and the artist's attempt to create his own forms. In this regard, revolutionary periods such as the Russian or Cuban revolutions or the Spanish Civil War assume an immense importance, for they altered (at least temporarily) the enormous divide between artistic hopes and societal constrictions.

The course is in fact divided into three courses and students can choose one of the three areas outlined below. There will also be one regular weekly meeting of two hours at which we will discuss a fully schematized series of topics including Art and Alienation, the Artist as Worker, the Art Work as Commodity, Art and Revolution, the Artist and his Audience, etc. This meeting will use films, plays, texts for illustrative purposes, and a number of interesting guests will be invited to participate.

Enrollment is open.

Art, Cinema and Revolution 1915-25

Jessica Spohn and Phil Kudla

This course is divided into two sections. One section will cover an historical view of two Russian artists, Vasily Kandinsky and Kasimir Malevich, whose careers paralleled the revolution. We will study their writings on art and aesthetics, their roles in the revolution and its effect on their lives as artists. The format will be slides, lectures, and guest speakers.

The second section will consider the work of two great film makers of that period, Dziga Vertov and Sergei Eisenstein. Points of focus will be: (a) historical—how Vertov and Eisenstein derived elements of their aesthetics from their particular socio-historical context; (b) theoretical—how their work aims toward the determination of a radically new personality and consciousness arising from concrete changes in social relations. The format will be films, lectures, and discussions.

Political Performance:
Aesthetic Theory and Critical Practice

Peter Brosius and Jim Gold

This workshop will explore some of the following ideas: the social function of theatre, the relationship of the audience to the performance, the use of theatre as a politicizing device, the internal politics involved in the mounting of a production, the problems of political theatre....

We will enlarge our definition of theatre to include dance, movement theatre, agit-prop, street happenings; the genres of children's plays, documentary plays, and epic theatre. We will read the aesthetic and critical works of Brecht, Piscator, Hans Mayer, Sartre, and Meyerhold. We will also be reading the plays and scripts of Brecht, Eisenberger, Weiss, Odets, Thornton Wilder, agit-prop of the 30's and recent guerrilla theatre pieces. In addition, we will screen films, do readings, and possibly mount formal or informal productions.

The workshop is designed for all people involved or interested in the possibilities of performance activity.

Literature and Revolution

Carol Bengelsdorf and Lawrence Pickett

This section will explore a number of writers (poets, novelists, etc.) in modern pre-revolutionary and revolutionary settings. On the one hand poets like Eluard, Neruda, Hernandez or, in contemporary America, Adrienne Rich, who see their poetry as committed to radical social change. On the other, writers like Dinesen and Remarque in Cuba or Mayakovsky in Russia, who experienced a political revolution as a change in artistic form. We will try and answer questions about the liberating role of literature in society and make some conclusions about the work of literature in relation to the overall social structure. The course form will be lectures, discussions, readings, films, and outside guests.

Jessica Spohn, Phil Kudla, Peter Brosius, and Jim Gold are Division II students at Hampshire College.

**For the word Artist or Art, substitute poet, writer, film maker, composer, sculptor, etc., whichever is your interest.



HA 295

THE FICTION OF CONTEMPORARY SPANISH AMERICA

Robert Márquez

This course will consist of readings in the fictional prose of Spanish America since the turn of the century. It will begin with an evaluation of the literary legacy of the Modernist and "Vanguardist" movements but will pay particular attention to those writers whose major work began to appear around 1940, and whose contribution to the so-called "literary boom" is of special importance.

Emphasis will be placed on the novel as the mode most typical of this group of artists. We will attempt to distinguish their "new" Latin American novel from its traditional antecedent, observing closely their growing sense of craft, their fusion of genres, the manner in which national and continental preoccupations are transmuted in their work. Their peculiarities in time and space, in perspective and the possibilities of imagination will give us some idea of the (technically) radical, (philosophically) cosmopolitan and (thematically) specific character of this fiction. The course will, I hope, enable us to gauge the distance that separates a work such as *The Vortex*, by the Colombian José Eustacio Rivera, and a more recent work such as *One Hundred Years of Solitude* by his compatriot Gabriel García Márquez, and, in the process, note the transformation that anglo-fiction has undergone since the day of the Romantics and Modernists.

The course will meet once a week for two hours, with students meeting in occasional conference with the instructor to discuss the course, readings, papers, projects, etc. There is no foreign language requirement. This is an open course.

HA 297

U. S. HISTORY:
THE FIRST HALF OF THE NINETEENTH CENTURY

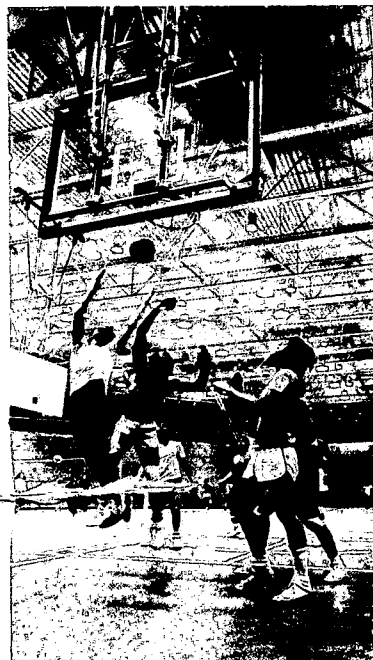
Van R. Halsey

Selected topics of the period will be examined from an American Studies point of view. That is, the continuing legacy of Jeffersonian and Hamiltonian ideas will provide the backdrop for studying a combination of cultural forces shaping 19th-century America: the agrarian vision in conflict with the impulses of a rising business system; some social and economic consequences of scientific and industrial development; political parties and states' rights ideas seen against the continuing debate over the role of central government; notions of "manifest destiny" in the land of the "common man"; attitudes toward land and the West; Turner, Beard, and Schlesinger and the continuing historians debate.

Other topics may suggest themselves from the biographies and writings of Jefferson and Hamilton and from the annotated reading list.

A major paper will be required about mid-way through the course on topics selected in conference with the instructor. Students will be expected to read the equivalent of two or three books per week.

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

SCHOOL OF LANGUAGE
AND COMMUNICATION
CURRICULUM STATEMENT

Symbols are the foundation of all human activity. Perception is coding the physical world into a symbolic representation, thought is manipulating symbols, communication is transmitting symbols. The study of symbolic processes is one of the keys to human nature. The School of Language and Communication is an experiment which brings together the disciplines that study the forms and nature of symbolic activity. Although these are among the most vital disciplines in current intellectual life, they are taught as a central part of liberal arts education only at Hampshire.

The program of the School of Language and Communication is organized into two interdependent parts. The first part is devoted to the study of thought and language, and is composed of linguistics, mathematical logic, computer science, analytic philosophy, and cognitive psychology. The second part of the program is devoted to the study of communication both in face-to-face social interaction and in the mass media. This part of the program is composed of mass communications, and parts of anthropology, psychology, sociology, and American Studies; and it includes courses in television production and journalism.

Many Division I students and transfer students are confused about L & C, partly because the School's name suggests various things that aren't part of the program, and partly because many things have never been exposed to any of the L & C disciplines before coming to Hampshire. However, the School's curriculum is carefully delineated and surprisingly wide-ranging, as a look through these course descriptions will show. The way to find out more about L & C is to become involved with one of the L & C methods of inquiry. This catalog is an invitation to such involvement—a map for the exploration of new intellectual territory.

The School has two or more faculty members in each of its discipline areas and offers at least one Division I and one Division II course in each discipline every term. The listing by disciplines above is convenient, but it should not obscure the interdisciplinary character of the School. Most of the School's faculty have studied more than one discipline, and many of the School's courses are substantially interdisciplinary. Students who are primarily interested in one of the disciplines are urged to take courses in the related ones. The course offerings are planned to complement those of the other colleges, so the student who does not find a particular course here is likely to find it in one of the other catalogs. The School supports Division II and III work in all of its disciplines, and students who are considering work that involves a particular L & C area should talk with one of the faculty members in that area, or go to the L & C Advising Center.

INDEPENDENT STUDY PACKETS IN L & C

The School of Language and Communication has created a number of packets for students to use in individual or group independent study projects. The packets vary in scope and depth, but most of them include instructions in their use, bibliographies, references to films and video tapes, study and discussion questions and suggestions for developing themes and projects, examples of student work, mechanisms for evaluating the effectiveness of each packet, and ways for each user to build on previous work. The packets can be used for developing Division I exams, and for Division II students they can supplement the areas of concentration or serve as an introduction to areas outside one's concentration. A faculty member in L & C is able to work in each area represented in the packet topics and students have the option of registering for independent study with those faculty members when they use the packets. Topics covered so far by the packets are:

Linguistics
Language and Thought
Language and the Generations
Language Acquisition
Phonology
Transformational Grammar
Dialectology
Black English
Stylistics
Sociolinguistics
The Language of Advertising
Language Pathology
Language Planning
Macrosociolinguistics
Historical Linguistics
Linguistic Relativity

Interpersonal Communication:
The sociology of face-to-face interaction

Conversation Analysis

Mass Communications

Cable Television
Media and Politics
New Journalism
Photo Journalism
Marketing
Broadcast News
Alternative Press in America

For more information concerning the packets, see the L & C Advising Center.

SCHOOL OF LANGUAGE
AND COMMUNICATION

AUTOMATA THEORY

LC 138

J. LeTourneau

LECTURES ON LANGUAGE

LC 149

R. Rardin

COMPUTER LABORATORY

LC 153

Self-instruction

A FIRST COURSE ON FILM: UNDERSTANDING CINEMA

LC 164

N. Shister

HIGHER LEVEL LANGUAGES

LC 169/269

A. Hanson

MINDS, BRAINS, AND MACHINES: LECTURE SERIES

LC 184

A. Hanson

NEW JOURNALISM: A WORKSHOP IN REPORTING

LC 185

N. Shister

PHILOSOPHY: BASIC PROBLEMS AND CONCEPTS

LC 190

C. Witherspoon

APPLIED ALGEBRA

LC 191/291

J. LeTourneau

INTRODUCTION TO LINGUISTICS

LC 205

R. Rardin

TELEVISION PRODUCTION I

LC 224

R. Muller

TELEVISION PRODUCTION II

LC 235

TSA

LANGUAGES, LITERATURE, AND CULTURE

LC 244

R. Lyon

TOPICS IN COGNITIVE PSYCHOLOGY: MENTAL MAPS

LC 246

N. Stillings

INTO AND BEYOND THE NATURAL CONVERSATION:

CONVERSATION ANALYSIS II

LC 247

Y. Tenney

MATHEMATICAL PROPERTIES OF TRANSFORMATIONAL

GRAMMARS

LC 249

E. Bach

ADVANCED SEMINAR IN COGNITIVE DEVELOPMENT

LC 250

W. Marsh

BEHAVIOR CONTROL

LC 255 (See SS 205)

Y. Tenney

DOING RESEARCH IN THE BEHAVIORAL SCIENCES:

THEORETICAL ISSUES AND PRACTICAL PROBLEMS

LC 256 (See SS 206)

M. Teghtsoonian

VERBAL AND NONVERBAL DIMENSIONS OF

COMMUNICATION

LC 257 (See SS 209)

J. Hornik

AUTOMATA THEORY

LC 138

J. Töllman

J. J. LeTourneau

LC 138

The theory of automata is a branch of mathematics whose major development has occurred within the last two decades. Today the theory forms one of the more active areas within the general field of computer science.

The original impetus for development of the theory grew from attempts to create precise models of neurological brain function, coupled with attempts to understand the theoretical limitations and capabilities of computing machinery. The theory also relates to certain problems in the foundations of mathematics.

We use the word "automata" generally to describe theoretical computing machines in wide variety, but the emphasis of the seminar will be on so-called finite automata, or finite state machines. The mathematical content is rich, providing a good example of contemporary ideas without requiring extensive and special background. It will therefore be feasible to encourage participation by students with varying degrees of mathematical strength.

We shall read, among other things, the works of researchers now active in the field. For a preview of the work to be done, see Part I of Marvin Minsky's *Computation: Finite and Infinite Machines*.

The course will meet three times a week for one hour each time.

Enrollment limit: 20

LECTURES ON LANGUAGE

LC 149

Robert Rardin

"They have been at a great feast of languages, and stolen the scraps."

Shakespeare, *Love's Labour's Lost*

This course is designed to acquaint students with a wide variety of language related topics. The course will meet twice a week—once for a lecture and once for discussion (in sections if the enrollment is large). There will be ten lectures dealing with such topics as the following:

language acquisition
language and the generations
language and thought
transformational syntax
phonology
dialectology
Black English
sociolinguistics
the structure of Finnish

The last two weeks of the course will be devoted to papers which are to be submitted at the end. The basic text will be *Linguistics and Language* by Julia S. Foltz. Additional readings will be drawn from *Psycholinguistics* by Dan Slobin; *Readings in Applied Transformational Grammar* by Mark Lester; *Language and Poverty* by Frederick Williams; *Modern Studies in English* by Neil Postman, Charles Weingartner, and Terence F. Moran; and other sources.

The lectures will be given once a week for 1 1/2 hours. In addition, discussion periods will be arranged for one hour a week.

Enrollment limit: none

COMPUTER LABORATORY

LC 153

Self-instruction

In addition to regular courses, we provide facilities to teach the use of programming language APL. The facilities are essentially self-instructional, with a core of instruction consisting of an audiotape series and an accompanying notebook-text of charts and examples. There are auxiliary materials such as films, a series of programmed exercises, and texts. A lab assistant will be available as a resource for solving puzzles and problems, and regular classroom-type problem-solving sessions will be scheduled. The student who has no experience with computers should register for the lab as a course in order to make this amount of time available during the term, although registration for the course is not required in order to use the lab. The student who wishes a more thorough introduction to computer programming should consider LC 156 Introduction to Computers and Problem Solving, offered every fall. Skills in programming can be used as part of (and in some cases as all of) an L & C exam. Students who are interested in doing Language and Communication examinations in programming should talk to Allen Hanson about their ideas.

For the beginning student, the work required to master computer programming at the Division I level is equivalent to about one-half of a normal course. The student who wants to do this should register for the lab as a course in order to make this amount of time available during the term, although registration for the course is not required in order to use the lab. The student who wishes a more thorough introduction to computer programming should consider LC 156 Introduction to Computers and Problem Solving, offered every fall. Skills in programming can be used as part of (and in some cases as all of) an L & C exam. Students who are interested in doing Language and Communication examinations in programming should talk to Allen Hanson about their ideas.

Enrollment limit: none

A FIRST COURSE ON FILM: UNDERSTANDING CINEMA

LC 164

Neil Shister

This course is intended as an introduction to the elements of film style, film composition, and film analysis. The first part of the course will be devoted to familiarizing students with the techniques and devices used in cinema. We will be seeking to define and understand what constitutes the language of film. Then we will look at a series of feature length films from both a critical and historical perspective. We will be interested in seeing how filmmakers invoke the language of cinema in their work, and how these elements are informed and influenced by the cultural context of the time.

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

Enrollment limit: 30

HIGHER LEVEL LANGUAGES

LC 169/269

Allen Hanson

We will attempt to examine some of the more popular languages available for interacting with a computer (such as APL, FORTRAN, ALGOL, SNOBOL, and perhaps a simulation language such as SIMULA). Each of these languages has certain characteristics which make it ideal for solving a particular class of problems and less than ideal for others. These characteristics are related to the method by which the language is defined, the structural and implementation differences among the languages and the types of objects which are representable within the framework of the language. Furthermore, the expressive power of a language is intimately related to both the structure of the language and the primitive operators supported by the language. The implications of these characteristics for the user will be discussed in some depth, particularly the types of problems available for solution in each of the languages. Efforts will be made to allow course participants to program in as many languages as possible as time permits.

While no background is required, it would be helpful if you had some experience, however slight, with programming. A course such as LC 156 or LC 153 would be ideal. If you are interested and unsure of your background and/or abilities, contact the instructor. This course will be useful for students whose concentration involves computer science. Ample opportunity will be provided for structuring a Division I exam around the course content.

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

Enrollment limit: 20

LC 246 TOPICS IN COGNITIVE PSYCHOLOGY: MENTAL MAPS

Neil Stillings and Yvette Tenney

People have mental maps, or internal models, of the world, and much of their thought consists of remembering and manipulating parts of the maps. This course will examine the notion of mental representation, using the tools of contemporary cognitive psychology.

Visual imagery. The naive conception of mental images as complete copies, or analogs, of the world has been replaced by the notion that images are abstract, that is, they leave out some information and encode the rest in a form that can be efficiently remembered and transformed. What is present in what is absent from images? How manipulable are images, and what accounts for the successes and failures of imagistic thinking? Are visual and verbal representations separate systems of thought? Why is visual memory and problem solving sometimes better and sometimes worse than verbal memory and problem solving? Are people who experience vivid imagery better off than those who do not? The work of Shepard, Baylor, Brooks, and others will be treated in this section of the course.

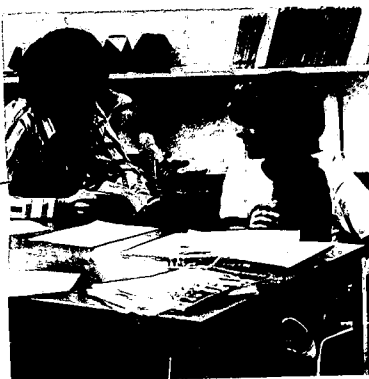
Semantic memory. We remember a great deal of what we hear and read and yet these memories are not auditory images of speech or visual images of pages. We have a compact representation that captures the gist of what we hear and discards most of the details. What is this representation, and what are its properties? The work of Bartlett, Bransford, Schank, and others will be discussed.

Development of representations. The form of a person's representations and his ways of manipulating them probably change as he grows up. How do representations change with changes in cognitive growth? Are there tricks and strategies of representation that people learn as they gain insight into how memory works? Do we "forget" our childhoods simply because our old memories are in a representation that we can no longer process? The work of Schacter, Piaget, Neisser, and Flavell will be discussed in this part of the course.

This course is primarily for Division II students. Division I students should consult with the teachers about taking the course. In most cases they should take LC 184 Minds, Brains, and Machines, which will cover some of the same material, using a Division I approach. Students who took previous spring courses in cognitive psychology are invited to take this one, since it covers new material. Students will be expected to do two or three projects, e.g., a short critical paper, an experiment, or a class presentation.

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

Enrollment limit: 32



LC 247 INTO AND BEYOND THE NATURAL CONVERSATION: CONVERSATION ANALYSIS II

Janet Tallman

It is time to develop more fully the work we have so far done in conversation analysis. I see three possible paths we might now follow. The first is into much more detailed and deeper studies of what we have so far found in natural conversations, e.g., topic patterning, see differences in speech, and the various styles of conversations. The second leads us beyond natural conversations into the created conversations of playwrights, film script writers, and novelists, the patterns of which we could compare to the patterns we have uncovered for natural conversations. The third takes us into areas that complement conversation analysis, into studies of nonverbal correlates to speech, into studies of group dynamics, and into computer programming of speech, for example. The interests of those who take the course will define the directions we go. I'm offering the course primarily for those who have done conversation analysis at a Division I level either in one of my courses or through independent study. However, if you are intrigued and new to the field, come talk to me about what you might do to get into the course.

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

Enrollment limit: 30

MS. TALLMAN WILL NOT GIVE GRADES TO FIVE-COLLEGE STUDENTS.

LC 249 MATHEMATICAL PROPERTIES OF TRANSFORMATIONAL GRAMMARS

Eamon Bach and William Marsh

We will begin this course with background from recursive function theory and mathematical linguistics on the notions of enumerating a language and deciding membership in it. We will then survey the results of S. Peters and R. W. Ritchie. During the last half of the course, we will attempt to involve the class in current research on formal and empirical constraints on transformational grammars.

Prerequisites: Some knowledge of transformational grammar and mathematical logic, mathematical linguistics, or some mathematics beyond the sophomore level. Students concerned about their background should get permission from one of the instructors.

The class will meet Tuesdays and Thursdays, 9:00-10:50 am.

Enrollment limit: none

LC 250 ADVANCED SEMINAR IN COGNITIVE DEVELOPMENT

Yvette Tenney

This seminar is intended for advanced Division II students who are interested in reading some new books in the field of cognitive development and discussing theoretical issues and researchable questions. It was inspired by three of my students who met regularly this past term on their own to read many of the same books that I would like to read.

The first part of the course will be spent reviewing some Gibson, *Principles of Perceptual Learning and Development*, and some Piaget, *Origins of Intelligence or Construction of Reality in the Child*. This section of the course can be extended or curtailed as needed, but students will be expected to have some familiarity with at least one of these theoretical positions before enrolling in the course.

The remainder of the sessions will be spent in exploring the implications of some new works for theories of development. These books will be selected by mutual agreement. I would be most interested in: Toohey's new book on infancy, Bryant's *Perception and Understanding in Young Children*, Michael Cole's *Culture and Thought*, Piaget's *Genetic Epistemology and Mental Imagery in the Child*. It would be helpful if students who are planning to take the seminar could meet with me ahead of time so that we can order books for the course.

The class will meet once a week for three hours.

Enrollment limit: 12, with permission of the instructor.

LC 255 (SS 205) BEHAVIOR CONTROL

Martha Teightsoomian

See course description under SS 205.

LC 256 (SS 206) DOING RESEARCH IN THE BEHAVIORAL SCIENCES: THEORETICAL ISSUES AND PRACTICAL PROBLEMS

John Hornik, Michael Radetsky, and Michael Sutherland

See course description under SS 206.

LC 257 (SS 209) VERBAL AND NONVERBAL DIMENSIONS OF COMMUNICATION

John Hornik and Janet Tallman

When individuals interact "what is communicated" involves more than simply "what is said." Awareness of this has led to the study of interpersonal communication along a number of dimensions, including nonverbal behavior (e.g. facial expression, body movement, eye contact, physical proximity), conversation content (e.g. degree of disclosure of self), and conversation styles (e.g. presence of joking, uses of silences, topic patterns). In general these dimensions have been studied separately; investigators have not been concerned with relations among them, but rather have focused on the different meanings that may be communicated within a particular dimension.

One kind of meaning often inferred is psychological closeness. For example, the closer two individuals are to each other in physical space or the more regularly they use the personal style of conversation, the more likely we are to infer psychological closeness between them. In this course we want to investigate systematically the dimensions along which individuals communicate psychological closeness and whether the communication of a level of psychological closeness on one dimension requires communication at a corresponding or compensatory level on other dimensions.

In our investigating we must first examine each dimension to discover if it is used to communicate psychological closeness, and then develop methods of identifying or measuring the degree of closeness observed in a particular interaction. From this point we can begin to ask more general questions about the possible relations among dimensions of interpersonal communication and levels of social relationships. To do this we will draw on literature from sociolinguistics and nonverbal communication, focus on dyadic relationships, and do some analysis of video tapes.

In answering the theoretical problems we want to undertake we expect to run into difficulties along the way in determining how one could/should approach these questions, particularly since our research backgrounds as social anthropologist and experimental social psychologist are quite different. Thus the discussion of methods will be a second, important focus of the course.

The format of the course will be a mixture of informal lectures and discussions. We expect you to be involved in thinking and reading about theoretical and methodological issues raised in the course and in doing research toward their solution. Individual and group projects can be negotiated, but are not required for participation in the course. Enrollment preference will be given to people who have passed Division I in L & C and have some background in conversation analysis, studies of personal space, nonverbal communication, or some other relevant area.

The class will meet for two hours twice a week.

Enrollment limit: 30, with permission of an instructor.

FIVE-COLLEGE STUDENTS WORKING PRIMARILY WITH MS. TALLMAN WILL NOT RECEIVE GRADES.



SCHOOL OF NATURAL SCIENCE CURRICULUM STATEMENT

Why is the School of Natural Science different from all other Schools?

1. Because we have to try harder. Comparatively few Hampshire students enter with a strong interest in the natural sciences. We accept this from the start and state at the outset that our primary efforts will not be aimed at serving the professionals, but at trying to interest and instruct the majority of students, whose past experiences with science courses have been either boring or frightening.

We have spent a lot of time and effort recruiting faculty who agree with this philosophy and who are capable of carrying it out. In addition, many of our students teach courses which are an important part of our curriculum. Most of us are easy to find and easy to talk to. In addition, we have an Advising Center in Room 127 of the Science Building. Please look over our course offerings carefully and if you still can't find anything you like, come talk to us.

2. Because we have core courses and mini-courses, as well as a regular courses. A mini-course is a course that lasts less than a full semester. For example, Maggie Wilcox's *Ferns: Living and Fossil*, and Allen Krass's *Open University of Great Britain* are both mini-courses that last one month and three weeks each. Others last six weeks. Check times carefully; mini-courses don't all start at the beginning of the semester.

A core course is a series of lectures or discussions around which several related courses cluster. For example, *Advanced Topics in Biochemistry*, *Topics in Photosynthesis and Nitrogen Fixation*, and *Neurophysiology Lab* are some examples of offshoots of CASH, the core of which is devoted to the reading and careful dissection of current biological research papers. If you are interested in a core, but aren't sure which (if any) of the related courses you'd like to take, please attend the first core meeting where all the courses will be described. No matter which course you attend, if they are related to a core, you will be expected to attend the core as well.

3. Because we do not have any pre-registration. If you want to try out a course, please feel free to try it out. Or try out several. In addition, we try to have open enrollment (no limits on the numbers of students in a class) as much as possible so you don't have to worry about getting your name in quickly.

(There may be an occasional course with limited enrollment; it will be clearly marked.) At the end of the drop-add period, you can register in any course you want to try by signing the list the instructor passes around.

The divisional level of courses can be easily distinguished by whether they carry a course number in the 100 or 200 range. Division III Integrative Seminars will be found listed elsewhere in the catalog.

P.S. Unless clearly stated otherwise, our courses will offer grades for Five-College students.

SCHOOL OF NATURAL SCIENCE

ASTRONOMY	
EXTRATERRESTRIAL INTELLIGENCE NS 132	O'Leary
COSMOLOGY (Div. II) ASTPC 20 (5-College)	Greenstein at Mt. Holyoke
INTRODUCTION TO ASTRONOMY & ASTROPHYSICS ASTPC 23 (5-College, Div. I/II)	Harrison at U. Mass.
TECHNIQUES OF RADIO ASTRONOMY (Div. II) ASTPC 38 (5-College)	Rugetta at U. Mass.
ASTROPHYSICS II (Div. II) ASTPC 44 (5-College)	Van Blerkom at U. Mass.
CHEMISTRY	
CHEMICAL REACTION MECHANISMS NS 111/211	Gay
ADVANCED ORGANIC CHEMISTRY NS 201	Lowry
PHYSICAL CHEMISTRY NS 274	Gay
GEOLOGY	
METEOROLOGY, OCEANOGRAPHY NS 107	Reid
VOLCANOLOGY NS 207	Reid
PHYSICS	
NATURE LOVES TO HIDE NS 109	Smolin Kriechbaum
THE NATURE OF LIGHT AND SOUND NS 112	Krass
BASIC PHYSICS: QUANTUM MECHANICS FOR THE MILLION NS 135/235	Bernstein
MATHEMATICAL PHYSICS AND VECTOR MECHANICS NS 208	Bernstein, Hoffman
MATHEMATICS	
SEMINAR IN NUMBER THEORY NS 171	D. Goldberg
THE WORLD OF MATHEMATICS PROGRAM NS 123/223	Kelly, D. Goldberg
CALCULUS WORKSHOP NS 128/228	Kelly
ANALYSIS THROUGH THE AGES (HISTORY OF CALCULUS) NS 213	Kelly

LIFE SCIENCES

(ANIMAL BEHAVIOR)

PRACTICAL ANIMAL BEHAVIOR & TRAINING
NS 115DISSECTING ANIMAL BEHAVIOR
NS 215

(BOTANY)

BOTANICAL ASPECTS OF HORTICULTURE
NS 193BOTANY "500"
NS 192PERNS, LIVING AND FOSSIL
NS 206 (MINICOURSE)

(CABAL-related)

CABAL PROGRAM
NS 190/290MICROBES AND MAN
NS 196 (MINICOURSE)TOPICS IN PHOTOSYNTHESIS AND NITROGEN FIXATION
NS 209MICROORGANISMS AND THEIR ENVIRONMENT
NS 296 (MINICOURSE)EMBRYOLOGY (THE DEVELOPMENT OF DEVELOPMENT)
NS 292 (MINICOURSE)EMBRYOLOGY (METAMORPHOSIS & REGENERATION)
NS 293 (MINICOURSE)ENZYMES: UNITS OF BIOCHEMICAL FUNCTION
NS 297 (2 MINICOURSES)NEUROPHYSIOLOGY LAB
NS 242ANIMAL PHYSIOLOGY
NS 225 (2 MINICOURSES)

(Environmental Quality)

ENVIRONMENTAL QUALITY PROGRAM

ECOLOGY
NS 113/213MONTAGUE NUCLEAR PLANT: A COMMUNITY ANALYSIS
NS 199/299FORESTRY DESIGN SEMINAR
NS 189/289WORKSHOP IN TECHNOLOGY ASSESSMENT
NS 221ENVIRONMENT: SENSE AND SENSITIVITY
NS 202 (SS 212)

(Other courses in Life Sciences)

A BAREFOOT RUN THROUGH BIOCHEMISTRY
NS 121BIOLOGICAL AND CULTURAL BASES OF SEX DIFFERENCES
NS 153 (see SS 111)A CLINICAL LABORATORY SAMPLER
NS 163COMPARATIVE NEUROPHENOMENOLOGY: BRAIN,
NS 145/245 NICHE AND CONSCIOUSNESSPUBLIC HEALTH IN DEVELOPING COUNTRIES
NS 265 (MINICOURSE)HOMOSEXUALITY AND THE SCIENCES
NS 277 (SS 210) (MINICOURSE)

SEPARATE COURSES IN SCIENCE AND SOCIETY

THE SCIENTIFIC REVOLUTION AND THE MAKING OF
NS 185/285 (SS 116/216) MODERN REALITYTWO SCIENTIFIC REVOLUTIONS
NS 239SELECTED TOPICS IN SCIENCE AND SOCIETY
NS 187 (SS 115)MODELS OF SCIENCE IN CULTURE
NS 288 (SS 211)

SEPARATE COURSES IN SCIENCE EDUCATION

UNDERSTANDING SCIENCE
NS 125 (ES 11)THE OPEN UNIVERSITY OF GREAT BRITAIN
NS 114 (ES 111)ELEMENTARY SCHOOL SCIENCE WORKSHOP
NS 122/222 (ES 112/212)THE PREPARATION OF A SCIENTIFIC MANUSCRIPT
NS 220

NS 132

EXTRATERRESTRIAL INTELLIGENCE

Brian O'Leary

The subject of extraterrestrial intelligence has fascinated mankind for ages. We are at last close to the time when extraterrestrial communication may be possible. How can we communicate? Are there other worlds ready to receive our messages or are we ready to receive theirs? Our search will lead us to consider the astronomical evidence -- the evolution of stars and how it affects the number of planets available for habitation, the length of time planets may be suited as abodes of life, the life on other planets in our solar system. Finally we will consider possible implications of the first contact and directions our civilization may be following in colonizing space and in lengthening life, perhaps to physical immortality. Readings will be taken from Shklovskii and Sagan's *Intelligent Life in the Universe* and from articles in current journals and books.

Class will meet on MW 1-2:30.

FIVE-COLLEGE ASTRONOMY COURSES

ASTFC 20

COSMOLOGY

Div. II

Hamann
The course will examine the origin, evolution, and structure of the universe. The treatment assumes no background in astronomy, but does require the mathematical sophistication equivalent to a year of calculus. Two 90-minute lectures per week. Prof. George S. Greenstein at Mount Holyoke.

ASTFC 23

INTRODUCTION TO ASTRONOMY AND ASTROPHYSICS

Div. I/II

Wilcox, M.
For astronomy majors or others interested in a quantitative introductory course. Variable and exploding stars, pulsars, X-ray astronomy, the interstellar medium, galactic structure, external galaxies, quasars, and cosmology. Two 90-minute lectures per week + one 2 hour lab. Prerequisite: some knowledge of physics and calculus is helpful. Although ASTFC 23 may be taken before ASTFC 22, students wishing to do so are warned that most students do not; those who do will require some outside reading in order to orient themselves and should consult with the instructor at the beginning of the course. Prof. E.R. Harrison at U. Mass.

ASTFC 38

TECHNIQUES OF RADIO ASTRONOMY

Div. II

Woodhull, Ann
An introduction to radio astronomy with emphasis on practical techniques. The Five-College Radio Astronomy Observatory at the Quabbin Reservoir will be used to observe pulsars and other radio sources, and perform flux-density and interferometric position measurements. Two 90-minute lectures per week plus observing sessions. Prerequisite: knowledge of basic physics (especially electromagnetism) and astronomy. Prof. G.R. Huguenin at UMass.

ASTFC 44

ASTROPHYSICS II

Div. II

Goldhor, Gross
Woodhull
Continuation of ASTFC 43. Quantum processes (stellar opacity, neutron astrophysics), stellar structure, radiation transfer, the interstellar medium, and cosmology. Two 90-minute lectures per week. Prerequisite: ASTFC 43. Prof. D.J. Van Blerkom at UMass.

NS 111/211

CHEMICAL REACTION MECHANISMS

David Gay

Woodhull, Al
How chemical reactions occur is among one of the most important goals of modern chemistry. This is easily seen in the host of industrial applications of chemistry. Special emphasis will be placed on the mechanisms of inorganic reactions especially those related to systems of biological importance. Lab work required. Three 1-hour sessions per week plus lab.



NS 207

VOLCANOLOGY

John Reid

The course will investigate volcanoes from the point of view that they represent the surface expression of processes within the earth by which the more easily melted portions of the earth's interior are flushed upwards to become parts of the earth's crust; hence volcanoes are the key to an understanding of the earth's overall chemical evolution. They are also key to an understanding of the ways the crust reworks and "refines" itself chemically during plate motions associated with continental drift. Volcanoes in several parts of the world are being used as sources of geothermal power and some time will be spent looking at this possibility. Basic chemistry and petrology are essential. We'll develop what else we need. A research project on some chemical or petrological problem in volcanology will constitute the bulk of the student participation.

Class will meet MW 1-3.

NS 109

NATURE LOVES TO HIDE*

Lee Smolin** and E. Krickhaus

In the search to understand the general laws underlying the spectacle of nature physicists in the twentieth century have been led to alter radically their conception of the nature of the physical world. As someone said, the world is not only stranger than you might have imagined, it is far stranger than you could ever have imagined. If, however, this quest has been difficult, it has been largely successful, and physicists can now claim to understand the principles by which nature operates from the cosmological scale down to the interior of the atomic nucleus. And these principles, if strange at first, are quite beautiful and profound.

The purpose of this course is to acquaint students with the principles and important ideas of modern physics, in a way that requires no previous knowledge of science or mathematical ability. We will study the special and general theories of relativity, quantum mechanics and something of the theory of elementary particles, to grasp not only their implications for our understanding of the world we are a part of, but also to understand their historical origins and philosophical implication. In addition to understanding, and coming to terms with the strange conceptions of these theories the students will, by the end of the course, understand the current answers to some basic and age-old questions such as:

What is light? What is matter, how are they different and similar?
What are things ultimately composed of, and what holds them together?
How does a star work? Where does nuclear energy come from?
How old is the universe, how big is it, and what lies beyond it?
Why can't we go faster than the speed of light?
Why is the sky blue?
What is strangeness?

*Hercules.

**Lee Smolin is a Division III student.

NS 112

THE NATURE OF LIGHT AND SOUND

Allan Krass

This course will provide an intensive introduction to the fundamental properties of light and sound. It is intended for non-physicists so the treatment will use only high school level mathematics -- i.e., algebra and trigonometry. We will study the ways in which light and sound are produced, the mechanisms by which they are transmitted from one place to another and the various interactions they have with physical and biological systems.

The theoretical ideas developed in the lectures will be applied in one or more experimental projects agreed upon by the student and instructor. Two 1/2 hour lectures per week.

PHYSICS SEQUENCE:

A series of rigorous physics courses is offered. Students interested in pursuing this sequence should plan their programs accordingly. The first course is BASIC PHYSICS: QUANTUM MECHANICS. It is given in the spring, to allow incoming students time to acquire the prerequisite calculus background. The series continues with ELECTRICITY AND MAGNETISM, and a third term of classical mechanics, thus covering elementary physics in reverse historical order. To sum up:

1st year: (Fall) CALCULUS (unless previously taken)
(Spring) BASIC PHYSICS: QUANTUM MECHANICS
2nd year: (Fall) ELECTRICITY & MAGNETISM
(Spring) Mechanics (covered this year in MATHEMATICAL PHYSICS & VECTOR MECHANICS)

NS 135/235

BASIC PHYSICS: QUANTUM MECHANICS FOR THE MILLION

Herb Bernstein

This is the first term in a revolutionary sequence of three elementary physics courses. The central concepts of quantum mechanics, in full mathematical glory, are exposed. Nevertheless, the mathematical background of students can be very disparate. The most useful mathematical ideas are complex arithmetic, vector spaces and linear algebra, and calculus up to elementary differential equations. Students entering the physics sequence are expected to have contacted these ideas, either in the Calculus Workshop or in independent study.

The class will meet two hours twice a week, and two hours once a week for a math section. Offered spring term only.

NS 208

MATHEMATICAL PHYSICS AND VECTOR MECHANICS

Herb Bernstein & Ken Hoffman

This course will explore the creative interplay between the theories of mechanics and the mathematics by which these theories are expressed and analyzed. Topics to be covered include vector spaces and linear transformations, eigen functions, differential equations, Hilbert and Dirac spaces, Fourier series and integrals, generalized functions, and relativistic mechanics -- all expressed and discussed through the problems of mechanics which give rise to them.

The course is designed for two general categories of students: (1) it serves physics students as the third course in the physics sequence; (2) it serves mathematics students as a next course after calculus, in which they can see tools of mathematical analysis developed in an applied setting.

The course meets MATH 9-10:30. The entire class and both instructors will meet during the Monday and Wednesday sessions. The Thursday session will go further into the physics, while the Friday session will explore the mathematical structures in more detail. Students are expected to attend either the Thursday or Friday sessions (or both).

Text: *Lectures in Mathematical Physics*, Vol. I by Robert Hermann.

NS 107

METEOROLOGY, OCEANOGRAPHY

John Reid

The course will look at weather and optical phenomena in the atmosphere (northern lights, halos, sunsets, etc.) particularly those experienced in New England. In late spring, with the help of Tony Pratt, a Div. III student in oceanography, we will look at some aspects of oceanography, particularly processes which shape coastlines.

Class will meet MW 9-10:30.

NS 171

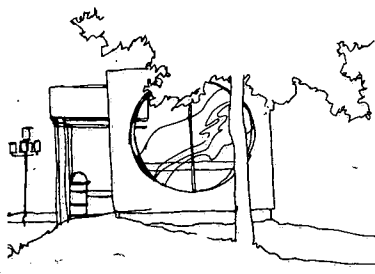
SEMINAR IN NUMBER THEORY

Don Goldberg

The theory of numbers is concerned with the alluringly simple list:
1, 2, 3, 4, 5, 6, 7, 8 ... and so on.

These so-called natural numbers have been the study of most of the great (and not-so-great) mathematicians from the ancient Greeks (some of whom believed that "Number is everything") through the awakening of modern mathematics in the seventeenth century (when Pierre de Fermat stated-but failed to prove- his "Last Theorem" which remains unsolved today) through the rigorization of mathematics in the nineteenth century ("God created the integers," wrote Leopold Kronecker. "The rest is man's work."). and in current research (the 1970 result of Matiyasevich-that there is no algorithm to determine whether or not a Diophantine equation has solutions-uses a substantial amount of elementary number theory).

After a few weeks of introduction to the language and methods of elementary number theory (congruences, mathematical induction, primes, using the computer), the format of the course will be as follows: no class meeting each week will see a presentation of a topic or paper by the instructor or one of the students; the other class meeting will be devoted to a discussion of our work on the many accessible, interesting, and challenging problems that will be distributed.



NS 123/223

THE WORLD OF MATHEMATICS

David Kelly, Don Goldberg

Students may expect to encounter problems in mathematics and mathematics in a wide range of studies. Hampshire's mathematical community provides short- and long-range support to many of the College's courses and programs and creates an atmosphere in which mathematics is done, shared, and enjoyed.

Course number NS 123 is offered as a convenience to students wishing to formalize a commitment to mathematical activity during a given term. The nature of that activity is subject to great variation. Many of the activities of the program are expected to develop during the term as particular needs and interests are identified. The Math Zoom (NS 125) bulletin board will provide an up-to-date listing of current and upcoming seminars, minicourses, lectures, classes, problems and proposals. The following activities are planned for the spring semester:

The Book Seminars:

Many important mathematical subjects lend themselves to semi-independent study. The following format has been successfully tried: in consultation with each other and a staff member, small study groups (about five students) select a book for independent study, and meet together regularly both with and without the instructor. The following topics may be handled efficiently in a book seminar:

Topics in the History of Mathematics
Topics in the Foundations of Mathematics
Topics in Applied Mathematics
Probability
Differential Equations
Linear Algebra
Advanced Calculus
Number Theory

The Prime Time Theorems:

Prime Time has been set for 4:17 each Thursday, when a visitor, student or faculty member makes a brief self-contained mathematical presentation.

Independent and small group studies in the World of Mathematics will, we hope, involve students in:

- planning, preparation, and presentation of support materials for courses, special lectures, etc.
- devising and testing instructional projects
- working on the Hampshire College Summer Studies in Mathematics
- teaching and tutoring at Hampshire or elsewhere in the World of Mathematics.

NS 128/228

CALCULUS WORKSHOP

David Kelly

Offered each term, the lectures, classes, and problem seminars of the Calculus Workshop are designed to serve a variety of needs and to accommodate students with a wide range of backgrounds. For some, the techniques of the calculus will provide a powerful tool for investigations in the sciences; others may be more interested in the conceptual development of the calculus. We expect to provide a working knowledge of the calculus in one semester.

The Calculus Problem Seminars will enlist the assistance of experienced math students to help calculus students acquire proficiency with tools of the subject. The course will meet four hours per week.

NS 213

ANALYSIS THROUGH THE AGES
(A HISTORY OF THE CALCULUS)

David Kelly

We'll figure out why Newton and Leibniz are credited with the discovery of the calculus when their predecessors (Archimedes, Kepler, Galileo, Fermat) could integrate and differentiate; we'll survey the unreasonably effective accomplishments of the eighteenth century (Euler, Lagrange, the Bernoullis); we'll sympathize with the struggle toward a sound foundation (D'Alembert, Fourier, Bolzano, Cauchy); and we'll revel in the teasing of infinity (Weierstrass, Riemann, Dedekind, Cantor).

Participants are expected to have seen some calculus, to come to appreciate the hard-won concepts of functionality, limit, and continuity (which will force us to learn some Fourier series), and to do lots of reading, some problems, and a paper.

One two-hour seminar and one two-hour problem-and-project meeting each week.

NS 115 PRACTICAL ANIMAL BEHAVIOR & TRAINING

Charles Hamann

Theory and practice in the training of amenable non-domestic animals. Actual practice will be confined to corvids and smaller rodent types. Discussion and observation will be used for a large variety of other species as primates, wild canids, large cats, snakes, etc.

Emphasis will be placed on developing reasonable procedures and techniques based on animals' "natural" behavior rather than presenting a single dogmatic methodology.

Class will meet MWF mornings.

NS 215 DISSECTING ANIMAL BEHAVIOR

Jane Egan & Ray Copplinger

This course has a dual aim: first it will attempt to develop a critical approach to behavior; and to teach the basic skills in its analysis (i.e. complex behaviors such as aggression and maternal behavior will be broken down into their component parts); second, it will attempt to see behavior in context and to understand the influences exerted on an animal's behavior by both its internal and external environment (e.g. the influence by both hormones and social companions on the occurrence of aggression).

There will be two 1½ hour meetings weekly. One will be a lecture followed by discussion, the other will be conducted as a seminar with discussions based on the week's reading, and on research done by individuals in the class.

All students will be actively encouraged to engage in their own research, and lab sessions will be held regularly.

NS 193 BOTANICAL ASPECTS OF HORTICULTURE

Maggie Wilcox

Horticulture concerns the science of growing plants, most commonly ornamental and flowering plants. Botanically it involves the growth and reproduction in plants. Some questions to be considered might be: How do plants grow? Can plants be alive and not grow? What conditions are necessary for growth or for reproduction? What is fertilization, organic or inorganic? How do plants propagate without flowers? Why greenhouse? What problems with insects and disease are involved in growing plants and what possibilities are there for overcoming these problems? Can we really afford to grow ornamentals?

Working with plants can be pleasant, therapeutic, lonely, hard fun, inspirational, thrifty, messy, artistic, profitable, lapidary, tidal, scientific or none of the above.

This course will be composed of lectures, discussions, and greenhouse-type projects. Class will meet on T, Th mornings (we will give additional sections if enrollment is large).

NS 192 BOTANY "500"

Michael Zimmerman

Ideally this course will force us to spend some of the spring enjoying the woods. It will start out with an ecological approach to reproduction, examining reproductive mechanisms and strategies. A segment on basic taxonomy and wildflower identification will follow and finally a look at the history and use of herbs. We might start to put together a medicinal or edible plant guide to the Holyoke Range and work on improving the Hampshire herbarium. The course is designed for people with little or no background in botany who would like to familiarize themselves with spring.

Class will meet T, Th mornings 1½ hours, and Wednesday afternoon from 1-4. No grades will be given (for 3-college students).

NS 206 FEELS, LIVING AND FOSSIL

(Minicourse)

Maggie Wilcox

Ferns can be studied from a taxonomic, evolutionary, ecological or anatomical point of view. The location of Hampshire College makes it easy to include these possibilities in this minicourse. An additional field trip to southeast New York State should provide some firsthand looks at fossil ferns.

Class will meet Thursday afternoon from 1-4, for one month from April 3 - 24.

NS 190/290

CABAL PROGRAM

Ann Woodhull

cabal (ka bal') n. 1. A conspiratorial group of plotters or intriguers. 2. A private intrigue of a sinister character.

CABAL is a core or conspiracy of the students and faculty from the courses and minicourses listed below.

At the weekly CABAL meetings we will discuss research papers published in the last year or so in many areas of biology. Since these findings are so recent, it is sometimes hard to tell which of them will turn out to be of historic significance and which are trivial, or perhaps untrue. Each week, a well-prepared panel of students and faculty will try to set one paper in perspective and will argue its significance. All students and faculty will read the papers and may join in the discussion. Background readings will be available for those who need them.

Notes on registration: Students can register either for individual courses and minicourses or for the CABAL core (if you don't know what course you want). At an initial meeting of the core, faculty will describe their courses for students who have not yet chosen.

Students in all the CABAL courses are expected to attend the core (Thursdays, 10:30).

NS 196

MICROBES AND MAN

(Minicourse)

Sandra Oyewole

This course is designed to give students an appreciation of the ubiquity and variety of microorganisms. Emphasis will be placed on the dynamics of unicellular growth. Students should get a feel for the essential cellular and biochemical aspects of life.

In the laboratory students will study the microflora of various ecological niches of their own choice - be it the human body or the local sewer. During the course of the investigation students will learn basic techniques in culturing and identifying microorganisms.

No special background is necessary. Class will meet twice a week (1 hour lecture and 2 hours of lab).

NS 209 TOPICS IN PHOTOSYNTHESIS AND NITROGEN FIXATION

John Foster

While on sabbatical I became involved in two projects, which I hope to continue with the help of some Div. II and III students:

Photosynthetic energy production by green bacteria

Chlorobium is a genus of green bacteria which are anaerobic, photosynthetic and nitrogen fixers. Electron micrographs show these cells have small buds, or vesicles, close under the cell membrane, and there is evidence that their chlorophyll is located there. If so chlorobium may be an interesting evolutionary link between other photosynthetic bacteria, where photosynthesis occurs in the cell membrane, and the cells of higher plants, where it occurs in specialized chloroplasts. Part of the project now that it is possible to isolate the vesicles from chlorobium, is to establish conditions where active photosynthetic energy production (ATP formation) can occur and then explore the biochemical function of the vesicles in some detail. There is also little known about the ecology of these bacteria. Why are they photosynthetic, if their normal habitat is cool, where there is little light and less oxygen? What role does the nitrogen-fixing ability play in the ecology of the pond? These questions will be explored in the field and in the laboratory (principally in the Biochemistry Department at UMass.)

Water and nitrogen cycles in evergreen forests

The soil in coniferous (evergreen) forests tends to be nitrogen-poor, raising the question of how trees get enough nitrogen for growth. It is now known in the case of Douglas fir that lichens, growing on the branches high above the forest floor, fix substantial quantities of nitrogen, perhaps enough to meet the needs of the tree. What form is the nitrogen made available in? How does it get into the tree, by direct uptake or by washing to the forest floor during the rainy season? What happens in the summer when it seldom rains but fog is common? What modifications occur in Eastern forests, where the summers are wet and the winters tend to be drier? These are all questions amenable to experiment, involving field work to rig the trees and collect samples and lab work to do the necessary analyses.

Both projects should afford numerous opportunities to develop Div. III projects.



NS 296 MICROORGANISMS AND THEIR ENVIRONMENT

(Minicourse)

2nd 6 weeks

Sandra Oyewole

The relationships, both beneficial and harmful, between microorganisms and their environment will be featured in these discussions. Industrial applications and implications will be discussed; for example, problems of contamination in the canning industry, problems of quality control, and the role of microorganisms in the production of various foods will be considered.

No formal lab will be offered, but any students interested in independent projects will be welcomed. No special background is necessary. Class will meet two times per week for 1½ hours. Div. I students are welcome.

ADVANCED TOPICS IN ENTOMOLOGY

NS 292 BACKGROUND AND HISTORY:

(Minicourse)

1st 6 weeks

Susan Goldhor, Mike Gross & Al Woodhull

An intensive module of readings from texts and review articles. The aim is to provide a context for the following module, but also to give a succinct history of the field to those interested. Previous experience in biology is required. We will attempt to understand what is happening to the organism in the course of development, and also to comprehend the points of view of earlier workers observing the same phenomenon. Among the topics in the history of embryology that we hope to discuss are the mosaic vs. the regulative theories of development, the rise and fall (?) of the organizer concept, the motivation for the invention of the technique of tissue culture, and studies of whether a mature nucleus can, when transplanted into an enucleated egg, support normal development. There will be no lab as such, but there will be opportunities for students to familiarize themselves with the events of development by direct observation, if they are willing to put in the time. Div. II (or see instructor).

NS 293 METAMORPHOSIS AND REGENERATION

(Minicourse)

2nd 6 wks.

Susan Goldhor, Neil Segal, Ellen Tanner & Al Woodhull

In last year's embryology course, we spent most of our time on early events in development. In this module we will read research papers, talk with workers in the field, in an attempt to understand two of the more dramatic and puzzling later events of amphibian development: metamorphosis and limb regeneration. This module will be a true seminar in which the teachers as well as the students will be reading new material; therefore, everyone's contributions will be equally valuable. Either the first module or the equivalent of a previous course in embryology are suggested as suitable preparation for this module. Div. II (or see instructor).

Neil Segal and Ellen Tanner are Hampshire students.

NS 297 ENZYMES, UNITS OF BIOCHEMICAL FUNCTION
(Mini course)
1st & 2nd
six weeks

John Foster

Nearly all chemical changes in living material result from the activity of enzymes. What is an enzyme? How does it function? What does one look like and how do you measure it? This 2-1/2 minicourse sequence will take a look at various aspects of enzymes and enzymology. Each minicourse will be more or less self-contained, so that it will not be essential to take the first to understand the second (but it will certainly be easier). The minicourses will be laboratory-based.

Enzymes as Catalysts (1st & 6th wk.): An enzyme makes itself known to the reactant by the reaction it catalyzes. Thus the starting point in any enzyme study is a good assay. This minicourse will focus on techniques of enzyme assay and the nature of enzyme catalysis. Using the assay one can then look at some of the properties of the enzyme (its kinetics, inhibition, binding constants, response to environmental factors, etc.) without actually seeing the enzyme itself.

Enzymes as Proteins (2nd & 6th wk.): An opportunity to purify your favorite enzyme from some suitable source, so that (with some luck) you can take a look at it. As enzymes owe their most properties to the fact that they are proteins, isolating them requires getting into some protein chemistry and into methods for separating large molecules from one another (gel filtration, electrophoresis, salt fractionation, etc.).

In addition to the properties of enzymes themselves we will also take a look at the way enzyme systems are organized. What organization is intrinsic to enzymes themselves and what requires structural organization as well? What factors control enzyme reactions in cells? How does stuff get in and out and shipped around? Div. II (or see instructor). Class will meet one afternoon and one evening per week, plus conference time.

NS 242 NEUROPHYSIOLOGY LAB

Merle Bruno, Ann Woodhull,
Coray Lavenon, Betsy Walker

An intensive course in the research techniques used to study nerves and nervous systems. It will consist of lab work, reading and lectures. Students will put together their own recording set-ups, and will test and become familiar with them by repeating experiments which are in the literature. They will then begin to formulate and work on questions that they themselves propose.

We will record action potentials and synaptic potentials from nerves, muscles and brains of crayfish, frogs and perhaps some other animals (and plants?). There will be opportunities both to learn several preparations and to stick with one long enough to do an original investigation.

Div. II (interested Div. I students should see an instructor). Class will meet 1W or T Th afternoons plus 1 morning per week. *Coray Lavenon and Betsy Walker are Hampshire students.

NS 225 ANIMAL PHYSIOLOGY
(Minicourses)
1st & 2nd
6 wks.

Al Woodhull

Taken together, the two short courses described below will be equivalent to a course in general and comparative physiology as might be found in another college, but the approach here will be to get at general principles in the context of reading about current experimental work. The laboratory will be used for background. The laboratory will be designed to illustrate and encourage ingenuity in the application of technology to problems of biological measurement; the goal will be to develop a view of measurement as an engineering problem. In practice this will mean that specialized equipment will be assembled from available apparatus when possible.

Animals as Model Humans (1st & 6th weeks): This module will deal with what is often called "general" physiology—we will look at ways in which very different animals can be used for experimental illustration of principles common to most animals.

Animals as Adapted Organisms (2nd & 6th weeks): In this half of the course we will look at differences between animals that reflect adaptations to the environmental conditions, the subject matter of "comparative" physiology.

ENVIRONMENTAL QUALITY PROGRAM

Louis V. Wilcox, Jr., Director
Michael Zimmerman, Assistant

The aim of the Environmental Quality Program at Hampshire are to produce a citizenry that is knowledgeable concerning the biophysical, social and aesthetic problems in our environment, and to be able to develop solutions to these problems. To accomplish this goal, the program is oriented around environmental projects with supporting courses offered by the schools at Hampshire. To participate in this program students are expected to select courses, do independent work, and/or prepare divisional exams that will be supportive of their involvement in a project. Student participation therefore can range from a divisional exam or minicourse to a full term load. The Environmental Quality Program main office is in Cole Science Center 313. All materials pertinent to past as well as ongoing EQP projects are located in this office. Michael Zimmerman also maintains his office there.

Following are lists of projects, courses, and potential resource people involved in (or related to) the Environmental Quality Program this spring.

NS 113/213 ECOLOGY

Ray Coppinger, Lou Wilcox

A) Lectures—Required by all students in the course. There will be ten lectures from the personal research of R.F. Coppinger and L.V. Wilcox Jr. in the field of ecology. They will be structured in such a way that when associated with readings will give the student the basic fundamentals of ecology. 1 hr./wk. (Wed., 10:30-11:30).

B) Lecture-Movie Series—Required by all students in the course. There will be ten lectures of movie with an environmental theme. 1 hr./wk. (Tue., 7:30-8:30).

C) Field Trips—Required by all students in the course. There will be ten field trips which will be illustrative of the material presented in class. 3 hrs./wk.

NS 199/299 MONTAGUE NUCLEAR PLANT:
A COMMUNITY ANALYSIS.

Lou Wilcox, Ray Coppinger

This course will search out the many facets of the impact of the proposed twin nuclear plants at Montague. The method of study will be to a great extent be a systems analysis approach, taking into full account all impact studies already completed. The accuracy as well as thoroughness of completed studies will be examined to the end that the class will fill in the "holes" that exist in the present knowledge of the proposed plants.

This course is intended for students in all four schools at Hampshire. We hope this will be an interdisciplinary examination of the phenomenon of nuclear plants at Montague. (Mon., 10:30)

NS 189/289 FORESTRY DESIGN SEMINAR:
AN ANALYSIS OF NATURAL BEAUTY

Channing Harris

(supervisors: Ray Coppinger, Art Hosen)

"We can never have enough of nature."

Thoreau, Walden

What are the aesthetic values of forests? What functions of a forest determine its form, colors, textures, odors, and sounds? How do the forms of a forest imply certain functions? If we could control natural processes how might we change the resulting environment? How could we design a beautiful forest?

These are some of the concerns this class will deal with. Significantly, we will analyze differences between the artists' and scientists' points of view. What are our alternatives of perspective? How can a scientific understanding add to our aesthetic reactions? How does our awareness of beauty aid our perception of natural phenomena? Techniques of study will include ecologic analysis, artistic expression and philosophic discussion. Class will meet twice weekly.

*Channing Harris is a Hampshire College student.

NS 221 WORKSHOP IN TECHNOLOGY ASSESSMENT

Allan Krass

How can society reliably assess a new technology? Every new technology has environmental, economic, social, political, legal, and cultural impacts on human beings. To what extent and by what methods can these impacts be anticipated and their costs and benefits computed?

This course will be an introduction to the philosophy and techniques of technology assessment. Techniques such as cost-benefit analysis, statistical analysis and economic projection will be studied as well as the ways in which the social scientists and psychologists attack the problems of a technological society.

There will be two 1 1/2 hour sessions per week.

NS 202 (SS, 212) ENVIRONMENT: SENSE AND SENSITIVITY

Ralph Lotte* and Mark Stephenson*

"The world is a mystery. What you're looking at, is not all there is to it. There is much more to the world, so much more, in fact, that it is endless." (Don Juan)

"Ethics must underlie the environmental movement if it is really to succeed in transforming man's thought and man's action. Conservation must become a matter of morality, not merely a matter of economics or of aesthetics or even of law." (Roderick Nash)

Just what is the environment? Are we receptive to the multitude of fascinating events occurring around us each minute? We will examine these questions from a number of viewpoints: as ecologists, poets, early European explorers, traditional native peoples, and scientists. We will take part in several exercises to clarify and expand our normal perceptions.

This seminar is conceived to be a practical and motivational experience to provide a base for our search for new attitudes. As individuals we will keep journals of our daily experience; as a group, we will examine and research the ecological and social ramifications of our opinions, attitudes, behavior, and life styles, and investigate alternatives to our present way of life.

Class will meet twice weekly for two hours. Div. II (or see instructor, class will be limited to 20).

*Ralph Lotte is a Naturalist in the Outdoors Program. *Mark Stephenson is a Div. III student concentrating in Environmental Studies. (Mark is principle organizer of the course.)

OTHER COURSES RELATED TO ENVIRONMENTAL QUALITY PROGRAM:
(See descriptions under other schools)

HA 145 THE MAKING AND UNDERSTANDING OF HUMAN ENVIRONMENT:
APPROACHES TO DESIGN

Justus and Pope

HA 201 THE AMERICAN LITERARY LANDSCAPE

David Smith

HA 242 THE ENGLISH LITERARY LANDSCAPE: QUESTIONS OF SPACE
AND AESTHETIC IN ENGLISH LITERARY HISTORY

Justus and Pope

HA 250 PROBLEMS IN ENVIRONMENTAL DESIGN

Justus and Pope

SS 113 BUILDINGS AND STREETS:
A STUDY IN THE SOCIAL HISTORY OF TECHNOLOGY

Harris Stone

SS 203 THE BOSTON REGION

Harris Stone

DIV. III INTEGRATIVE SEMINAR: HUMAN ENVIRONMENTS

Phil McKean, Maggie Wilcox

ENVIRONMENTAL RESOURCE PEOPLE:

Merle Bruno: Elementary science education
R. Bruce Carroll: Policy, politics, government
Ray Coppinger: Ecology, candida, natural history
Ed Croer: Environmental law
John Horvath: Ecological psychology
Horton Justus & Earl Pope: Architecture and ecology
Allan Krass: Technology assessment
Phil McKean: Anthropology
John Reid: Geology, hydrology
David Smith: Literature, history, ecology
Harris Stone: Urban studies
Mike Sutherland: Statistics, computers
Stan Warner: Economics
Lou Wilcox: Ecology, modeling, wetlands
Maggie Wilcox: Botany, horticulture
Mike Zimmerman: Ecology, botany

SEPARATE COURSES IN LIFE SCIENCE

NS 121 A BAREFOOT RUN THROUGH BIOCHEMISTRY

L. Slakey, E. Westhead*

Why do oral contraceptives have some harmful side effects? Why isn't there a good oral contraceptive for men yet? How close are we to controlling inherited characteristics at will? What happens at a molecular level in mental illness? What is pain? Why do placebo work? Can crash diets or artificial foods do your body real harm?

There is a set of concepts developed by modern biochemical study which are at the base of understanding how science is approaching these issues which make significant changes in people's lives. This course will present particularly those concepts which deal with control in biological systems. The course has a twofold aim: 1) to work with the present explanations of control in biological systems, and 2) to discover what the resources are for the person not trained in science to use in order to be able to think critically about these issues, rather than be controlled by the display of technical expertise or the persuasions of mass media explanations.

The course format will be lecture and discussion, with laboratory work available as an option. This course is being taught in the Biochemistry Department at the University of Massachusetts.

*Dr. Westhead is Professor of Biochemistry at the University of Massachusetts.



NS 153 BIOLOGICAL AND CULTURAL BASES
OF SEX DIFFERENCES

N. Giddard, L. Farahan

See course description under Social Science 111.

NS 163 A CLINICAL LABORATORY COURSE

At Woodhull

The laboratory portion of the Human Biology I course allows a student to learn how to do various tests of body function which are of use in medical diagnosis. Instructions for these laboratory techniques have been videotaped. The materials are available at any time for students who want to learn the techniques independently. Procedures one can learn include measuring blood pressure, recording an electrocardiogram, urinalysis, liver function tests, blood typing, and many more.

This is not a course in the usual sense, and it can be done either partially or completely, at whatever pace a student wants to set. The entire series of laboratories is equivalent to a one-month minicourse. Students should plan to work in groups of two or more persons. No grades will be given (for 3-college students).

NS 145/245 COMPARATIVE NEUROPHYSIOLOGY:
BRAIN, NERVE AND CONSCIOUSNESS

E. Krickhaus

An introduction to behavioral biology, neurobiology, biopsychology, neuropharmacology, neurophysiology, physiological psychology, etc.

Class will meet Monday and Wednesday afternoons. No grades will be given (for 3-college students).

NS 265 PUBLIC HEALTH IN DEVELOPING COUNTRIES

(Minicourse)

Sandra Oyewole

In the United States, cancer and heart ailments are the major killers. This is not so in many countries where infectious diseases still pose a real problem. In this course we will discuss basically microbial diseases of man, such as malaria and cholera, which still present major problems in other countries. Some aspects of the mechanism of infection and transmission of these diseases will also be discussed. The economics and sociology of disease control will also be examined.

This is a six week minicourse. Class will meet two times per week for 1 1/2 hours.

NS 277 (SS 210) HOMOSEXUALITY AND THE SCIENCES

(Minicourse)
2nd & 6th
Mike Cross

This course will explore the origin and nature of scientific treatments of homosexuality. After discussing the emergence of homosexuality as a concern of scientists in the late nineteenth century, we will turn to analyses of specific treatments of homosexuality from biological, psychological and sociological perspectives.

We will meet for about 1 1/2 hours, twice a week for lectures, discussion of common readings or reports. Occasional short essays or a journal will also be requested (and required for evaluation). Open enrollment (by permission of instructor). Open to students from the entire five-college community. Tues., Thu., 1-3 pm.

NS 288 (SS 211) MODELS OF SCIENCE IN CULTURE

Ning Ivory

Consider the following explanations of science-society relations:

- A **SCIENCE** → **TECHNOLOGY** → **SOCIETY**
An intellectual product → A group of people
manufactured by pure → consuming
scientists working → technology and,
labs according to → hardware in order
method which eliminates → to accomplish purposes
personal prejudice
- B **SOCIETY** → **TECHNOLOGY** → **SCIENCE**
A group of people → these needs
with needs → these needs
like the Arts,
an activity "good
for the soul".
- C **TECHNOLOGY-SCIENCE** → **SOCIETY**
A method, a way of seeing → a victim of this mindless way
the world that tends to → of thinking: torn apart, polluted
reduce everything to → dehumanized.
numbers

The course will examine these and other "models" of the science-society relation, ones that are explicit in the writings of social theorists and scientists, as well as those implicit in our own analyses. We will discuss models emanating from three different orientations: historical (models of the science-society relation in other times and places), socio-political (models of science policy and sociology), and literary (models from fiction, social criticism and psychology).

Class will meet MW 11 am.

SEPARATE COURSES IN SCIENCE EDUCATION

NS 125 (ES 110) UNDERSTANDING SCIENCE

Nancy Lowry

This course will be independent study in science workshops and packages.

We will develop self-study units on elementary chemical and scientific principles and observations aimed at youngsters, college chemistry students, college non-science students, and people out and around in the world with little or no science background. In conjunction with this work we will carry out a sound unit already planned by the instructor and local teachers.

Students should see instructor to enroll in this course; enrollment will be limited to twelve.

NS 114 (ES 111) THE OPEN UNIVERSITY OF GREAT BRITAIN (Minicourse)

Allan Krass

The Open University in Great Britain produces courses in all academic disciplines and these are taken either for degree credit or for pure enjoyment by students all over Great Britain. The only entrance requirement is that the student be over 21 years of age. The students work at home in their spare time and talk with the faculty who prepared the course.

The teaching methods are multi-media, using printed material, tape cassettes, radio and television broadcasts and personalized instruction by tutors.

This course will give → introduction to this system and a
critique of its efficacy → in Great Britain as well as its
possible adaptation → the U.S.A.

Class will meet twice a week for 14 hours.

NS 122/222 ELEMENTARY SCHOOL SCIENCE WORKSHOP (ES 112/212)

Marie Bruno

During the past 15 years, national interest in space, the environment and industry has resulted in the development of many materials for "teaching science" to elementary school children. At first, the stimulus for these programs was a desire to develop a generation of scientists. Eventually, interested teachers found that some exciting things happened when children had a chance to deal with the contradictions and complexities of real events brought to the classroom by some science materials. This had an influence on the present direction of some science curricula.

Students in this course will participate in workshops which introduce science materials developed by the Elementary Science Study. They will also read some of Piaget's theories of intellectual development and try to relate these to their classroom experience.

Group I: Each student will work with a small group of children in a local elementary school classroom twice a week for 6-7 weeks and will use some of the materials that they worked with in class. Students need not have any teaching experience or any science background.

Group II: One evening a week students will participate in a workshop with local teachers and will work as aides for these teachers and help them gather and build materials. Students in this group should either have had experience teaching, curriculum planning, etc. or be Natural Science concentrators.

Any students who would like to participate in Group II but can not take the rest of the course may be able to do this. See the instructor for an interview. Class will meet MW 1-3, plus Th. evenings.

NS 220 THE PREPARATION OF A SCIENTIFIC MANUSCRIPT

Linda Slaley

This is a practicum in writing about scientific work. During the first few weeks we will use samples of good and bad writing from the scientific literature to analyze style. During this period we will also write short pieces as exercises to achieve clarity, economy of words, perhaps even elegance! As the semester progresses each student (and the teacher) will write a long manuscript, using the class as a resource for encouragement and criticism. It is assumed that class members will have some real work of their own to write about; for example, data from a Division III project or an extensive review of the literature on a subject of interest to them.

SCHOOL OF SOCIAL SCIENCE CURRICULUM STATEMENT

Faculty in the School of Social Science, representing a variety of disciplines and interests, are working toward a curriculum that will encourage students to think about interdisciplinary approaches and to develop their own interests accordingly. Our Division I courses are intended to introduce to the methods and perspectives of social science. They deal with a relatively limited topic and afford you an opportunity to develop your skills in formulating questions and answers. With the experience gained in one or two such courses you should be able to prepare an acceptable Division I examination. Division II courses are intended for students who have developed concentration in one or more areas and are prepared to commit themselves to more intensive and comprehensive study of a subject. They cover more ground and they assume your ability to integrate material into your own concentration, and perhaps to take off in new directions appropriate to your own interests.

Division I students will find in this list courses suitable to a range of interests, all designed to offer you some initial understanding of how we frame questions and work toward answers. Our Division II courses are not yet grouped, but you will find in this list courses appropriate to concentrations in law, women's studies, American social history and politics, Third World nations, education and counseling, social and political theory, and many other possibilities. Division II students with social science interests should read course descriptions carefully and discuss with their advisers and concentration committees all courses of possible usefulness. It is also advisable that you discuss courses with instructors and determine in advance whether or not they will contribute substantially to your concentration.

As a supplement to the brief biographies at the back of this book, here are some more personal autobiographical statements by faculty in the school. We hope that you'll find these helpful as a guide to people whose interests and abilities might best match your educational needs.

*See statement on Law Program, page

Richard Alpert - My main focus during graduate school in political science was comparative political development in Latin America. I did several studies on the development of political institutions in Argentina, Uruguay, and Mexico, and considerable research on the impact of American foreign policy on political institutions in the Caribbean, especially the Dominican Republic. In the last year of graduate school, I changed my interest to urban politics and did my dissertation on politics and education. I finished my dissertation while a member of the Research Staff of the Urban Institute in Washington, D.C. After leaving the Institute to come to Hampshire College in September 1971, I continued my interest in questions of urban politics and public policy as the Special Assistant to the Director of the Model Cities Program in Holyoke, Massachusetts, from 1971-1973. The courses I offer relate to these interests, especially to the impact of public policies on the lives of the urban poor.

Carol Bengelsdorf - My primary field of study has been imperialism and its function in the evolution of capitalism, and the ramifications of imperialism: the economic, political and cultural dimensions of underdevelopment. The geographical focus of this work has been Latin America and Africa, with particular emphasis on the role played by the United States on these continents in the maintenance of colonial and neo-colonial systems.

In the course of examining the options open to countries in the capitalist periphery, I became involved in study of the Cuban Revolution. I have, as well, done a good deal of work on the Russian Revolution, particularly on its development through the 19th century, prior to the taking of power, and on Russian literature, again, particularly of the 19th century.

Robert Birney - In addition to continuous teaching interests in theoretical and empirical studies of personality, I have published work on experimental studies in human motivation concentrated upon fear of failure in achievement task situations. My hope is to design studies especially suited to the Hampshire context for conducting personality research.

R. Bruce Carroll - Trained at the University of Chicago, my interests now center in public law, public administration and American politics. Throughout my career I have been very active in politics, and view as necessary for understanding combining the literature of the field with actual experience. Consequently, research interests and classes tend to have significant primary source emphases.

Monica Faulkner - I received my B.A. in French and my M.A. and Ph.D. in sociology from UCLA after writing a thesis on student politics during the Free Speech Movement of 1964. My approach to social science is derived from social psychology. I am interested in the interrelationships between individuals and the social contexts in which they live: the objective conditions (social structures) within which lives are constructed and the subjective "sense" which people make out of what happens to them. While this approach can be applied to a number of specific problems, my major interests right now are (1) women's studies (especially sex roles, couple relationships, women's careers, and the position of women in contemporary French society); (2) artistic production (especially the ways in which artists relate to institutional structures such as the film industry); and (3) the nature and content of mass media. I am also interested in projects which involve the use of such methods as field observations, participant observation, and interviewing to generate social science data.

SEPARATE COURSES IN SCIENCE AND SOCIETY

The two courses below on the scientific revolution will approach it from different perspectives and with different methods: "Two Scientific Revolutions" will be more directly concerned with the philosophical roots and implications of the scientific work the Scientific Revolution and the Making of Modernity create; "The Scientific Revolution and the Making of Modernity" will take a more historical approach, concentrating on one hand on extensive readings of original sources and, on the other hand, on connections between scientific change and the broader historical forces such as magic and the occult, the rise of Puritanism and capitalism.

NS 185/285 THE SCIENTIFIC REVOLUTION AND (SS116/216) THE MAKING OF MODERN REALITY

Mike Cross, Gene Frankel*

In the sixteenth and seventeenth century, western society experienced or invented such notions as the heliocentric universe; gravity; the separation of mind and body; the practical usefulness of mathematics; and many others. The dominant ideas we largely accept more than three centuries later.

The first half of this course will examine how scientists such as Copernicus, Galileo, Bacon, Descartes, and Newton developed these ideas. The second half will seek cultural and social sources for these developments in science.

No previous work in science is necessary. Participation of members of the five-college community is welcomed. The class will meet one afternoon or evening a week to discuss common readings. About five short interpretive essays will be assigned. (Division II students will be encouraged to undertake independent projects.)

*Gene Frankel teaches courses in history of science, science and society, and physics at Trinity College, Hartford.

NS 239 TWO SCIENTIFIC REVOLUTIONS

E. Krichbaum

This course will be a detailed philosophical, linguistic, phenomenological, logical, and experimental examination of the Great and modern "scientific revolutions." No credits will be given (for 5-college students).

NS 187 (SS 115) SELECTED TOPICS IN SCIENCE AND SOCIETY

Ning Ivory

An introduction to the methods of the historian/sociologist of science. The course will not include lectures, rather it is a "workshop" or "discussion" type course. Students can work on one or all of the projects, and will hopefully be able to easily develop exams from their work.

Science and Education: Historical Methods (first third of semester): Students will dig into archival material of the Round Hill School in Northampton (Benjamin Pierce, an American Astronomer taught there 1830-31). This is unexploited material who knows what we may find. If time permits, or if there are enough students, we may get to other similar sources of "raw data" - the kind of thing from which grand historical theories are sometimes built.

Science and Society: Sociological Methods (second third of semester): Students will develop "propositional" statements from popular literature - that is, they will tease out "testable" statements hidden in the broad popular descriptions of current science-society relations - like Toffler, Roszak, Reich and others. We will also develop research programs that would attempt to "test" them.

Science and Literature: Literary - Critical Methods (third third of semester): Students will help develop a course, lecture series, inter-school cooperation or whatever you around the "image of science and scientists in the arts". We will attempt to locate the relevant issues by looking at, for example: Brecht's *Galileo*, Rippert's *In the Matter of J. Robert Oppenheimer*, Curran's *The Physicists*, science fiction, or other arts.

Spring Term Course Guide 1975

Oliver Poulkes - I came to Hampshire College from a background of work with ACLU and as a poverty lawyer. I studied at Southwestern College in Memphis, University of Glasgow, and Memphis State and Vanderbilt Law Schools. While in private practice in Memphis I helped organize an OEO legal services program for that city. Later I developed mental patient legal representation projects at several institutions in Western Massachusetts. I have had experience in training undergraduate students as para-legal counselors in the areas of poverty and mental health law. My interests are civil liberties, poverty law, and teaching interdisciplinary social science through field study.

Penina Glazer - My major field of interest is United States social history. I especially like history of radical and reform groups, women's history and contemporary social movements. I also try to think of myself as someone who is not very ethnocentric. I have lived and done research in Chile and Israel. Right now I am writing about the history of American radical pacifists in World War II and contemporary Israeli war resisters.

Leonard B. Glick - My interests include general anthropology, culture and personality, ethnicity and nationalism, and anthropology of religion. Although I try to maintain familiarity with most aspects of social and cultural anthropology, I am especially interested in political and cultural problems in nations comprising two or more major ethnic groups, and in cross-cultural studies of perception, religion, and world view. Since coming to Hampshire I have developed interests in Jewish history and culture and in cooperating with students in introducing courses in this area.

Edward Greer - All of my intellectual and scholarly concerns have developed out of my engagement in the class struggle, and in particular, the effort to create a socialist society in the United States.

My formal education is in law; and I have worked for a reform city administration in an industrial and largely black city. I have published in the areas of urban and black politics, public administration, the role of government regulatory agencies, political control of the environment, tax policy, the history of American socialism, and Marxist theory. I am currently developing competencies in questions of comparative urban development (particularly between the U.S. and Western Europe) and American urban social history, in addition to trying to deepen my understanding in the above-mentioned fields.

William Grohmann - My primary interest is in higher education - including purposes, policies and effects of colleges and universities; historical and sociological analysis; planning to put Hampshire in perspective; and willing to work on some (non-technical) areas of education study on other levels. Also: Micronesian (or Pacific studies) as related to colonialism or cultural studies; current political/social issues; and comparative urban development (particularly between the U.S. and Western Europe) and American urban social history, in addition to trying to deepen my understanding in the above-mentioned fields.

John A. Horvick - Brief personal history: I was circumcised in New York (1944), socialized on Long Island (1944-62), in Illinois (1962-66), professionalized in Illinois (1966-70), demoralized in Virginia (1970-74), and now revitalized at Hampshire (1974-7).

I am a social psychologist with a strong background in research methods and statistics. I enjoy doing research, and I enjoy first helping students to develop their own research questions and then working closely with them on designing and carrying through studies which deal with these questions. I am currently teaching a number of courses. I teach: My principal research interest at the present time is personal space and crowding, but I have worked with students in many different areas of social psychology. I am also interested in psychology and law and in the social psychology of education.

Gloria T. Joseph - a black educator of West Indian parentage. My interests and experiences are many and varied - education, social psychology, school psychology, golf, tennis, Caribbean studies. Traveled widely having spent three years in Europe with the Department of Army Civil Affairs as an educational specialist - still travel frequently. Naturally and eruditely bring a black perspective to any and all environments - excellent listener. Most recent areas of interest and involvement - photography and trustee of Emmanuel (Catholic) College in Boston.

Mary Kaufman - Active trial lawyer in political cases since 1947. Was one of the U.S. prosecutors in Rosenberg war crimes trials and defense lawyer during McCarthy period and through the period of mass protests. Was a member of International Citizens Tribunals and Inquiries.

Joan B. Landes - My general field of interest is the condition of women in capitalist society: her relation to such aspects of social organization and everyday life as class, the state, production, household and reproduction. In my dissertation I am conducting a critical analysis of the theoretical foundations of the women's liberation movement as a preface to further work on these questions. My studies of the theory and practice of the women's movement are integrally connected with my interests in contemporary political and social thought and American politics. I do not believe that "women's issues" can or ought to be isolated from other questions concerning the quality of American life or from the ways those questions are conceptualized. On the contrary, my perspective on women's politics has provided me with a standpoint from which to examine such areas as public opinion formation, aspects of political economy, "ethnic" politics, and community power structure. It has also served as a point of departure for rethinking the categories traditionally employed to examine these and other aspects of society. My background also includes work on the California Grape Strike, and on the ideology of the Algerian Revolution. I have taught courses on women's theory, Marx's Capital, American politics and data analysis.

Barbara Linden - My main academic interests at this point are in the following areas: radical sociology; planning (urban and regional); the relationship between behavior and physical design; methodology (survey techniques, content analysis [in film], qualitative research and evaluation design); stratification theory; and the sociology of law. For other fascinating facts about me, see Bob von der Lippe's statement, since he and I are identical twins.



Lester Masor - I studied history as an undergraduate at Stanford, with a particular focus on American constitutional history, and continue to enjoy supervising independent study projects in that field, including studies of the Supreme Court and its Justices. At Stanford Law School I continued my interest in American public law and legal history. My law teaching career took me into many subject areas in which I continue to have an interest, including criminal law, philosophy of law, legal history, sociology of law and the legal profession, legislation, and administrative law and procedure. In recent years, I have developed a strong interest in the developing law of women's rights and children's rights. My general theoretical work is on the future of law in the cultural transformation following the end of modern civilization, and this work has taken me into the study of anarchist theory and the archaeology of the philosophical subject of "liberty and liberation", on the philosophical challenge to law, and on a major study of American legal education.

Philip P. McKean - Play, death, love, New England and Indonesia are among my present concerns and I continue to work at trying to understand and appreciate them. My youth was spent in the Berkshires and Maine, and my academic training was in the fields of history (Williams College), religion (New College, Edinburgh, and Yale) as well as anthropology (Brown). I have been a chaplain and clergyman, and have written about Outward Bound schools (Maine and Malaysia) and modernization/urbanization/tourism primarily in Bali, Indonesia. I continue to be interested in the areas, as well as the general history, theories and methodologies helpful in understanding culture and society. The interdisciplinary approach is one I encourage, linking anthropology to the arts (music and film), and science (environment and biology). I am discovering a growing awareness about the variations, limits, and potentials found in us humans.

I enjoy sailing, trout fishing, skiing, gardening and hiking with my family.

Laurie Nisonoff - I have spent nearly all of my life in the innermost of large cities: New York, Boston, and most recently New Haven, with summer interludes in various artist communities and camps all over New England. I've been involved in several political campaigns and the student movement since junior high school, and these activities brought me from the role of "future New York City high-school math teacher" to the social sciences. In college most of the problems of the city and general labor studies. I worked on several projects, including the first study of Massachusetts welfare and studies of the Boston rental and labor markets. After involvement with several unioning efforts and several years in the women's movement, I began to study the social and economic history of this society from a Marxist perspective - the political and economic class, the role of the state in capitalist societies, the role of the state and its policies. I am just completing a two-year term as an editor of the *Review of Radical Political Economics* and am currently writing a history of women's work in America and their struggles to control that work.

Anson G. Rabinbach - I went to P.S. 33, Junior High School 79, and De Witt Clinton High School in the Bronx, New York, from which I was formally expelled in 1962. I graduated from Rhodes high school in New York City the following year and received a B.A. from Hofstra University in 1967. Leaving New York State with hundreds of dollars in back parking tickets, I entered the University of Wisconsin in the history graduate program. From 1967-70 I studied European social and intellectual history, concentrating on social movements and social theory in the twentieth century. My M.A. degree was granted for a thesis on the social transformation of the Vienna Jewish community at the end of the 19th century and the subsequent rise of antisemitism, Zionism, and nationalism. My Ph.D., on the history of Austro-socialism and Marxism, was granted in 1973. A Ford and SDS fellow while at Wisconsin, I spent two years doing research in Vienna and am now editor of *NEW GERMAN CRITIQUE: An interdisciplinary Journal of German studies*. I am interested in European intellectual and social history, problems of culture and cultural criticism, Marxism, critical theory, and contemporary social and political theory.

Harris Stone - I am an unsuccessful architect. This is in spite of the fact that everything in my youth indicated that I was going to be a success. My parents were rich. I went to the right schools: Brown, where I majored in Art History, and Harvard, where I received a Masters degree in Architecture and studied City Planning. I did my apprenticeship with first-rate firms, and opened my own office. But then the 1960's happened. I was one of those "politicized" by the "Movement." The problems with which I am now most concerned have little to do with the normal practice of architecture. I am not interested in assembling another hermetically sealed package of expensive merchandise. My interest is in the process whereby societies and their various institutions

structure the physical environment. At the same time I am struggling to find a way whereby modern architecture can respond to the rough beauty of construction, the vitality of the street, and the impact of history.

Michael Sutherland - I'm a statistical consultant at Hampshire who has an abiding love for exploring other people's data and experimental designs when they feel they need help.

I usually teach introductory statistics and data analysis in the form of independent studies or book seminars so that they may be more closely related to students' interests than a standard introductory course. I also have a tendency to show up in various other people's courses to discuss particular aspects of statistics as related to that course.

Barbara Turlington - I did my graduate work in the fields of international politics, international law, foreign policy, and comparative government. My undergraduate work was partly in psychology (at Swarthmore College) and in political theory (American University of Beirut in Lebanon) and I continue my interest and some reading in those fields. I have recently become interested in the subjects of utopian thought and the commune movement, especially as they relate to the topic of community. I am prepared to serve on Division I committees in certain areas of psychology and sociology as well as in most areas of political science.

Robert von der Lippe - A Hampshire faculty "old timer", I've been here since 1963. My interests have been interdisciplinary for some time, with an undergraduate degree in biology and graduate degrees in sociology -- which explains my academic focus on medical sociology. My dissertation on problems in medical education with particular reference to the value orientations of student physicians was done at the Stanford Medical School. My main interests at present are in medical care delivery systems and in social stratification, small group studies, professions, and social psychology. I love the sea -- for fishing, sailing, mystery and adventure. Perhaps three years on a destroyer in the Far East explains this -- or maybe Norwegian heritage -- whatever, it leads to my belief that Hampshire's major problem is that it's not by the sea.

Mary Ruth Warner - I am Master of Prescott House. My interests are in folklore of oppressed peoples (women, blacks, homosexuals, etc.); Afro-American expressive culture; on-slave narratives; folklife; film; folk and oral history; fieldwork.

Stanley L. Warner - A Michigan farm boy who went to Harvard to study economics and was later persuaded that there is a class structure to society which does not encourage farm boys in this direction. My interests are several but the most part they focus on the historical development and the contemporary performance of American capitalism. More specific concerns are (1) the modern corporation as understood by conventional and radical theories, (2) the historical relationship between the corporation and the state, and (3) the nature of work and the laborer's work alienation. Looking back on my own rather substantial investment in human capital, I have decided to declare myself a wasting asset, rather after the practice of the international oil companies, in order to deduct an annual depletion allowance from my tax liability.

Frederick S. Weaver - I can work with students in most areas of economic theory and analysis. I am particularly interested in theories of development and underdevelopment, Latin American and European economic history, and international economic relations. I have recently been working on Marxist theories of advanced capitalism.

Barbara Yegorovna - I am an anthropologist, and am particularly interested in the following areas and issues: conflict resolution and social control; social and legal change, particularly in the U.S.; urbanization and the cultural and social problems linked to this; ritual and religion; maritime communities; fieldwork, as a means for creating barriers between classroom and society, as a means of personal growth, and as a research tool; sociological and anthropological theory. I have done fieldwork in northern Europe, South America and New Guinea. My current research interests are in U.S. small claims courts (I am working with Mass. PRG on designing a project for observation of and research into Massachusetts courts, aimed at legislative reform); political organization and decision-making processes in fishing communities; and time, and its importance as a factor in conflict-resolution processes.

SCHOOL OF SOCIAL SCIENCE

MODERN AMERICAN RADICALISM
SS 103

E. Greer

EUROPEAN LIBERALISM
SS 106

A. Rabinbach

ECONOMICS OF LABOR AND THE LABOR FORCE
SS 107

L. Nisonoff

SOCIOLOGY AND THE ARTS
SS 108

M. Faulkner

STUDIES IN HIGHER EDUCATION
SS 109 (ES 121)

W. Grohmann

SOCIAL CLASS AND THE DEMOCRATIC IDEAL IN AMERICAN POLITICS
TODAY
SS 110

J. Landes

BIOLOGICAL AND CULTURAL BASES OF SEX-DIFFERENCES
SS 111 (NS 153)

N. Goddard and L. Farnham

MODERN ISSUES IN PSYCHOLOGY
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R. Birey

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TECHNOLOGY
SS 113

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THE SCIENTIFIC REVOLUTION AND THE MAKING OF MODERN REALITY SS 116/216 (see NS 185/285)	G. Frankel and M. Gross
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MCARTHURISM: POLITICAL HYSTERIA AND REPRESSION IN THE UNITED STATES SS 119	M. Kaufmann with E. Greer
GODS, BRASTS, AND MEN: THE BEGINNINGS AND THE END OF POLITICAL THEORY SS 122 (see NS 121)	R. Meagher
THE FORGOTTEN PEOPLE: LAW AND THE STATE MENTAL INSTITUTION SS 198	O. Foviles
TOPICS IN MEDICAL SOCIAL SCIENCE SS 199, SS 201, SS 202, SS 203	R. von der Lippe Coordinator
BEHAVIOR CONTROL SS 205 (LC 255)	M. Teghtsoonian
DOING RESEARCH IN THE BEHAVIORAL SCIENCES: THEORETICAL ISSUES AND PRACTICAL PROBLEMS SS 206 (LC 256)	J. Horvick M. Radetsky M. Sutherland
SEMINAR: PSYCHOTHERAPY SS 207	L. Farnham
POLITICAL THEORY: AMERICAN LIBERAL THOUGHT SS 208	J. Landes
VERBAL AND NON-VERBAL DIMENSIONS OF COMMUNICATION SS 209 (see LC 257)	J. Horvick and J. Tallman
HOMOSEXUALITY AND THE SCIENCES SS 210 (see NS 277)	M. Gross
MODELS OF SCIENCE IN CULTURE SS 211 (see NS 288)	M. Ivory
ENVIRONMENT: SENSE AND SENSITIVITY SS 212 (see NS 202)	R. Lutts, and M. Stephenson
PROBLEMS IN EUROPEAN INTELLECTUAL HISTORY: THE GENESIS OF HISTORICAL THOUGHT SS 213	A. Rabinbach
THE BOSTON REGION SS 214	H. Stone
CAPITALISM AND EMPIRE SEMESTER II (THE 19th and 20th CENTURIES) SS 215	History Group (C. Bengelsdorf; P. Clazer; E. Greer; L. Nisonoff; A. Rabinbach; S. Warner; P. Weaver)
INTRODUCTORY ECONOMICS (GROUP INDEPENDENT STUDY) SS 217	F. Weaver
INTERMEDIATE MACRO-ECONOMIC THEORY (GROUP INDEPENDENT STUDY) SS 218	F. Weaver
ECONOMIC HISTORY OF THE UNITED STATES SS 219	L. Nisonoff
RACISM AND THE LAW SS 221	M. Kaufmann
MARKIST AESTHETICS SS 222 (NS 294)	C. Bengelsdorf, L. Pickett, J. Spohn, P. Kudla, P. Brosius and J. Gold
FIELD STUDY IN DEVELOPMENTAL AND COGNITIVE PSYCHOLOGY SS 226	M. Cole
CONSTITUTIONAL LAW: CIVIL LIBERTIES IN AMERICA SS 298	R. B. Carroll
SS 105 MODERN AMERICAN RADICALISM Edward Greer	
We will undertake an historical survey of radical movements in twentieth century America and develop a critique of their strategies for revolutionary change.	
The course will concentrate on the I.W.W. and Socialist Party in the period through the First World War; the Communist Party in the 1930s and 1940s; the civil rights and pacifist groups in the 1950s; and the "new left" and black nationalist groups in the 1960s. Each of these groups will be examined with respect to several key policies: the role of racial, ethnic, sexual, and class factors in making a revolution; the road to the seizure of power under American conditions; the role of culture; and the problem of democracy.	
To carry out this ambitious agenda, it will be necessary that we do a large amount of reading. Generally materials will be either of an historical or theoretical nature; or biographical or fictional. Whenever possible, participants will be invited as guests.	
The course will meet twice a week for 1½ hours each session. Enrollment is limited to 25.	
SS 106 EUROPEAN LIBERALISM Anson Rabinbach	
This course is a historical introduction to some fundamental concepts and problems in political theory and intellectual history. By concentrating on the genesis and fate of European liberalism, fundamental questions of political order, control, sovereignty, liberty, and the state can be investigated from the standpoint of the liberal ideal. The course will entail a close reading and discussion of the major texts of liberal thinkers and critics such as: Kant, Hobbes, Locke, Rousseau, Montesquieu, Hegel, Mill and Marx. Some supplementary material will also be read.	
Enrollment is limited to 25. Division I students only. Twice a week for 1½ hours.	

SS 107 ECONOMICS OF LABOR AND THE LABOR FORCE

Laurie Nisonoff

The primary focus of this course is the analysis of work in America from the viewpoint of an economist. Some of the questions we will consider include:

- 1) Who does what kind of work in the U.S.? Does it vary by race or sex?
- 2) Is it paid or non-paid labor? How are wages determined? What are wages? salaries? Do these vary?
- 3) What mechanism matches a worker with a firm? an occupation? an industry?
- 4) What is discrimination? unemployment? underemployment?
- 5) What is a labor market? Why does that concept exist?
- 6) What do bosses do? unions? the state?

We will begin by studying some oral history, field studies and census materials to form a picture of the world of work, and to enable each member of the seminar to interpret statistical and/or empirical material.

The course will include an introduction to the basic principles of marginalist (orthodox) economic theory as applied to these questions. We will then study human capital theory, dual labor market theory and radical and Marxist theories of work and the labor market.

The readings will include: Lloyd Reynolds, *Labor Economics and Labor Relations*; David M. Gordon, *Theories of Poverty and Underemployment*; Studs Terkel, *Working*.

The course will meet twice a week for 1½ hours each session.

Enrollment is limited to 25 and open to Five College participation.

SS 108 SOCIOLOGY AND THE ARTS

Monica Faulkner

This course is designed to introduce Division I students to modes of inquiry characteristic of sociology as a discipline. We start from the premise that artists are people who do work in a social context and that this social context impinges on their work. We will use the case of the artist in society to introduce some basic sociological concepts such as culture, interaction, roles, socialization, career, and stratification.

The readings will fall into three categories:

- basic introductory readings in sociological theory and methods
- sociological studies which apply these concepts in analyzing various forms of artistic labor such as painting, music, dance, poetry, acting, photography and film
- Journalistic and personal accounts which document the above processes and relationships

Class sessions will focus on the readings and on discussions of student projects. Evaluations will take into account participation in the class discussions and the adequacy of the course project. The course project will, in most cases, consist of a paper, at least 20-25 pages long, in which the student examines in some detail one or more topics discussed in the course. Ideally, it should be the outcome of field work (observations, interviews) done during the semester.

The course will meet twice a week for about 1½ hours each time. Enrollment will be limited to 20, with a waiting list if necessary; students will be admitted on a first-come, first-served basis.

SS 109 (ES 121) STUDIES IN HIGHER EDUCATION

William Grohmann

We all have chosen to be associated with an institution of "higher" education. Further, we've come to a college which portrays itself as different from others. One purpose of this course is to help us develop an overview of U.S. higher education and to have a clearer perspective on how Hampshire (and we) relate to the larger world of post-secondary education.

Areas to be explored include: the history of higher education in this country; some seemingly important current trends; the relationship of colleges and universities to U.S. society; the effect of college on students; and alternatives to the Hampshire approach. Some emphasis will be placed on 4-year, private liberal arts colleges and on non-traditional alternatives.

Students will be expected to read from works of sociology, history, philosophy and psychology, to write several short papers and to make class presentations. The intent is to offer opportunities both to increase informed self-awareness and to sharpen skills of social science inquiry and analysis.

The course will meet twice weekly for 1½ hours.

Enrollment is limited to 20. Division II students may enroll with the instructor's permission.

SS 110 SOCIAL CLASS AND THE DEMOCRATIC IDEAL IN AMERICAN POLITICS TODAY

Joan Landes

This is a course on American politics today. It focuses on the way in which politics affects and is affected by the demands of millions of Americans for political, economic, and social justice. It focuses on the confrontation between democratic ideals and social reality. It asks how the reality must be transformed if the ideals are to be put into practice. This confrontation is viewed in its historical dimensions and in light of contemporary economic and political structures of power. Particular emphasis is placed on the changing situation and the conscious political activity of Black people, women, and working people.

The course will meet twice weekly for 1½ hours per session. Enrollment is limited to 20 students on a first-come first-served basis.



SS 111 (NS 153) BIOLOGICAL AND CULTURAL BASES OF SEX DIFFERENCES

Nancy Coddard and Louise Farnham

There is much current feeling that sex roles are predominantly determined by social and environmental factors. Yet there are obvious biological factors, such as hormones, that influence the formation of sex-typed behaviors. We are going to try to delimit these biological factors from the social factors by asking the following questions.

First, does the reproductive system directly influence psychological states? In other words, are some differences between the sexes directly related to the physiology of the male and female reproductive systems rather than to the attitudes about the systems? To investigate this problem, we will study the genetics of sex determination and will review the male and female endocrine systems, and of particular interest will be possible psychological effects of hormone changes in these systems.

Second, are there differences between male and female brains? Recent evidence suggests that sex hormones influence the shaping of neural circuits in the central nervous system. In exploring this problem we will review experiments in which the injection of hormones into animals at crucial stages of development results in sex reversal; we shall also study a related problem in humans -- the phenomenon of the transsexual. Finally, we will study sex differences in infant responses to stimuli; differences that appear to be innate.

While the emphasis of the course as described above is clearly biological, particular attention will be given to psychological and cultural influences which interact with the biological substrates.

The course will meet twice a week for two hours.

Enrollment is limited to 20.

SS 112 MODERN ISSUES IN PSYCHOLOGY

Robert Birney

This course will present studies from experimental, personality, and social psychology. Basic concepts currently used in the study of behavior change, personality organization, and social interaction will be analyzed for the models of inquiry used by psychologists who address phenomena which greatly differ from one another. Readings will concentrate on Skinnerian concepts and operant techniques, personality theories of Sigmund Freud and George Kelly, and studies of social interaction and personal attribution by Jones, Kelly, Wiener, and others.

Two meetings per week, one lecture session and one discussion session.

Enrollment is unlimited.

SS 113 BUILDINGS AND STREETS: A STUDY IN THE SOCIAL HISTORY OF TECHNOLOGY

Harris Stone

The historical role of technology will provide the framework of study. The course is conceived as a follow-up to SS 142 - City in History, but that course is not a prerequisite. Specific topics will be investigated such as the urbanistic implications of the development of power operated tools in the Middle Ages, the architectural implications of the development of industrialized construction, and such contradictory claims as "all streets are highways"; "streets are for people."

Students will meet as a group once a week for one and one-half hours and in individual conference with the instructor every other week for one-half hour. Conference work will involve a more intensive study of some aspect of the topics covered in the seminar.

Enrollment is limited to 20.

SS 115 (NS 187) SELECTED TOPICS IN SCIENCE AND SOCIETY

Ming Ivory

See course description under NS 187.

SS 116/216 THE SCIENTIFIC REVOLUTION AND THE MAKING OF MODERN REALITY (NS 185/285)

G. Frankel and M. Gross

See course description under NS 185/285.

Spring Term Course Guide 1975

SS 118 ENCOUNTER WITH THE HOLOCAUST

Leonard Glick and JoAnn Simon*

Between 1941 and 1944 the Jewish population of Europe was virtually obliterated. Beginning with mobile units whose primary task was the destruction of entire communities in occupied Russian territory, the Nazis steadily evolved mass murder techniques culminating in Auschwitz and other death camps. Throughout Europe, in every nation occupied by the Germans, Jews were methodically deported to these camps, where they were either gassed immediately or assigned to slave labor battalions in which they were worked to death.

Perhaps searching for "lessons" from the Holocaust is futile; nevertheless, we must try to understand it. Several themes will receive particular attention in this course: (1) A definable sequence of events led to the point of no return; destruction did not descend on the Jewish people overnight. What they were doing, they planned carefully, and they received indispensable assistance and support from thousands of ordinary people. (2) Virtually no one - not even the Jews of the United States - acted vigorously to halt or modify the destruction. Aside from the war effort as such, the allied nations quietly evaded the situation to the very end.

Study of the antecedents and consequences of the Holocaust leads into a number of historical, sociological, and psychological problems, and students will find that they need to read widely to gain adequate perspective. You will be expected to write a number of brief papers on aspects that interest you especially. Students from other colleges will receive grades on request.

The course will meet twice a week for 1½ hours. Enrollment is limited to 25.

*JoAnn Simon is a Division III student at Hampshire College.

SS 119 MCCARTHYISM: POLITICAL HYSTERIA AND REPRESSION IN THE UNITED STATES

Mary Kaufman with Edward Greer

This course is designed to explore the phenomenon of political hysteria and repression in our country, with particular emphasis on the period, generally described as McCarthyism, which followed World War II. This was a period of intense political repression; it endured far longer than any other in our history and its effects still linger. It was a period in which fear and anti-intellectualism masked as super-patriotism dominated our lives. Repressive laws were enacted and enforced. A gigantic loyalty-security program blanketed the nation. Thousands lost jobs. Dissent became synonymous with treason and conformity to acceptable beliefs became the way of life.

We will be concerned in this course with (1) the nature of other periods of repression including fascism in Europe in the early thirties; (2) the economic and political history which gave McCarthyism its roots; (3) the legal superstructure which gave it free rein; and (4) the cultural, political and social impact of McCarthyism on our nation.

The legal superstructure of McCarthyism is the most ascertainable and clearly defined topic among the areas of concern listed above. It includes specific Executive Orders, loyalty-security programs, congressional witchhunts, political cases and Supreme Court and other court decisions. We will examine these in detail. The remaining areas of concern present opportunity for original investigation and research. The course will provide a critical basis through which we can explore some of the questions troubling us today, such as: What moves masses of people into political and racial bigotry; the role of large corporate interests in shaping our domestic and foreign policy; the factors which influence national values and goals; the role of the Supreme Court in periods of national crisis and repression.

The students will select one of the four areas listed in the second paragraph above for special concentration and will join with other students in a seminar on that area. The class will meet regularly, as a whole on Tuesdays and Thursdays for one and a half hours per session. In addition, students will be required to meet regularly in seminar sessions and to participate actively in class discussion. Each seminar will submit a research paper at the conclusion of the course reflecting the work of all of the students in the seminar and will report orally to the class on their area of concentration. Students interested in this course should be prepared to fulfill substantial reading assignments on all of the areas of concern, to undertake extensive original research in their special area and to meet in seminar session often.

Enrollment is unlimited.

SS 122 (HA 121) COGS, BEASTS, AND MEN: THE BEGINNINGS AND THE END OF POLITICAL THEORY

Robert Meagher

See course description under HA 121.

SS 198 THE FORGOTTEN PEOPLE: LAW AND THE STATE MENTAL INSTITUTION

Oliver Foulkes

Thomas Szasz has called residents of state mental institutions "the forgotten people". The following questions will be raised in the context of this course:

Why do mental institutions exist and whose interests do they serve?

What is the relationship between law and psychiatry?

Does a patient have a right to treatment and habilitation?

What impact will new legislation, litigation and patient liberation movements have on legal rights of residents in total institutions?

This course will utilize placements in neighboring mental institutions with the purpose of illuminating and supporting material dealt with in class such as, among other things, the following: Szasz, Law, Library and Psychiatry, and actual cases arising in the institutions where the films were made; "progressive" mental health legislation.

The aim of this course is to acquaint students through reading and field work with the issues involved in mental institutionalization and to consider possible alternatives. It will also focus on developing "tools" for eventual participation in legal counseling and normalization programs which will require a thorough understanding of Massachusetts mental health laws, holdings in various important court cases and counseling techniques.

The course will meet at least twice a week for one and one-half hours each. In addition, each student will be expected to devote at least eight hours a week to his or her field work placement. A fair amount of reading will be expected in addition to keeping a diary and writing periodic papers on topics of interest encountered in the course.

Enrollment is limited to 20.

SS 199 SS 201 TOPICS IN MEDICAL SOCIAL SCIENCE

Robert von der Lippe, Coordinator

Course Faculty Supervisors:

Leonard Glick
John Hornik
Barbara Linden
Laurie Nisonoff
Harris Stone
Stanley Warner

Seminar Leaders:

Elizabeth Appley
Dor Battenfeld
Jack Carr
Stanley Coos
Glinny Gordon
Sarah Grambs
Dawn Liberi
Trinka North
Laura Punnett
Lynn Selby
Greg Thomas
Mall Trilla
Doug Whelan

Topics in Medical Social Science is a general title to cover four seminars listed below, being offered in the School of Social Science. The individual seminars will be organized and led by Division II and III students under the supervision of Social Science faculty. Each student and faculty leader for this course were chosen because of their interest and previous training in the seminars being offered. The first seminar in both for Division I and II students and will require an interview with the instructors for admission. The remaining seminars are for Division II students. It will also be possible for a student to take two of the seminars at the same time. There will be an evening lecture series, probably meeting once each week, at which topics of interest in medical social science will be presented and to which all the students in all four seminars will be asked to attend. The seminars themselves will meet from three to four hours per week. Each seminar will require a project to be undertaken by the students involved. These projects and related proposals plus seminar participation will comprise the bases for the evaluation of the seminar. All evaluations will be the responsibility of the faculty supervisors of the seminar in question. In addition to this evaluative function, the faculty will act as resources and consultants to the individual seminars providing lectures, advice, reading suggestions; and general help as the semester proceeds.

FOUR SEMINARS IN MEDICAL SOCIAL SCIENCE:

SS 199 - HEALTH: THE NEW PROFESSION

Dawn Liberi and Jack Carr

An analysis of preventative medicine and health care delivery in the United States.

"I have heard that in ancient times human beings lived to the age of a hundred. In our time, we are exhausted at the age of fifty. Is this because of changes in circumstances, or is it the fault of men?"

Beginnings of Su Wen, the first part of Nei Ching, world's oldest book on Medicine

This seminar will be an examination/evaluation of the effectiveness of the health care system in the United States; how it evolved to its present state, and what avenues of change are available?

Enrollment is limited to 20. Interview with instructors is required.

(Faculty supervisor: Robert von der Lippe)

SS 201 - SOCIAL SCIENCE AND MENTAL HEALTH

Stan Coos, Sarah Grambs, and Lynn Selby

"The social-reaction perspective is concerned less with the origins of deviant response and more with those social forces which help structure, organize, and perpetuate such reactions. Advocates of this perspective argue that deviant response is reinforced and perpetuated by social reactions to it, by the manner in which it is labeled, and by the resultant exclusion and discrimination against the deviant. The basic assumptions underlying this approach are that each society produces its own deviants by its definitions and rules and that such processes of definition help maintain the boundaries of the society."

David Mechanic
Mental Health and Social Policy

This seminar is devoted to looking at some of the issues raised in the statement above. Topics covered will include social theories of mental illness, social therapeutic processes, social analysis of therapeutic settings and institutions, problems of therapeutic justice, and the integration and/or disintegration of the mentally ill in the community.

(Faculty supervisors: Leonard Glick, John Hornik, Harris Stone)

SS 202 - CROSS-CULTURAL AND COMPARATIVE MEDICAL CARE

Doug Whelan, Greg Thomas, Mall Trilla, Trinka North

A seminar devoted to an analysis of the health care expectations and practices of people in diverse cultures and countries. Among possible topics to be considered are: definitions of health and illness in various cultures; to modern medical methods; health needs and health care among various populations in the United States (e.g., Native Americans, Spanish Americans, urban and rural Blacks, Appalachian mountain people); and comparative studies of medical concepts and medical care in other nations and cultures throughout the world.

(Faculty supervisor: Leonard Glick)

SS 203 - POLITICAL ECONOMY AND AMERICAN HEALTH

Elizabeth Appley, Dor Battenfeld, Glinny Gordon

This seminar will begin with introductory discussions about political economy, and the health care system as it reflects the values of the American economic structure. Topics to be considered will be: the control of health care by powerful interest groups; the attempts of emerging consumer groups to effect change; the legislative process and its effectiveness; ways of financing health care (private and federal health insurance, medical/medicare, and Medicaid); and attempts to develop alternative health care institutions in the United States. An effort will also be made to consider these issues in the light of other economic systems.

(Faculty supervisors: Barbara Linden, Laurie Nisonoff, Stanley Warner)

SS 205 (LC 255) BEHAVIOR CONTROL

Martha Teghtsoonian

Our behavior is constrained by the natural environment, by social institutions, by our friends, and by our own hopes and goals for ourselves. This course will undertake a systematic consideration, through reading and discussion, of mechanisms through which behavior is controlled and the outcomes, expected and unexpected, of various controlling mechanisms (e.g., monetary reward, affection, approval, punishment, threat, attention and the withdrawal of attention, exhortation, command, providing information). The first part of the course will be devoted to a review of the principles of operant conditioning (also called reinforcement theory or the functional analysis of behavior). Subsequently, this framework will be applied to an analysis of social institutions (e.g., armies, prisons, mental institutions, therapist-client), and of our own functioning. In each case, a major focus will be the extent to which a knowledge of behavioral principles permits us to eliminate undesirable, and to effect desired, outcomes. Each participant will be expected to 1) review a text on the principles of operant conditioning if he/she is not already familiar with the material, 2) write a paper applying the methods of analysis developed in class discussion to some institution or type of personal relationship, and 3) devise and carry out a self-control project to change some behavior of his/her own (e.g., smoking, eating, assertive behavior, study behavior) selected by him/herself.

The course will meet twice a week for 1½ hours per session. Enrollment is unlimited.

SS 206 (LC 156) DOING RESEARCH IN THE
BEHAVIORAL SCIENCES:
THEORETICAL ISSUES AND PRACTICAL PROBLEMS

John Hornik, Michael Radetsky, Michael Sutherland

This course is designed both to teach students how to do research in the behavioral sciences (principally psychology, sociology and communications) and to introduce them to general theoretical problems inherent in inquiring into the causes of human behavior. This will be accomplished through lecture-discussions, reading and substantial student involvement in research projects.

The class will meet for two 3-hour sessions each week. The first hour of each meeting will be devoted to discussion of general issues in research such as the development of theory, the role of theory in designing research, problems in the manipulation and measurement of variables, threats to internal and external validity and the problem of multiple interpretations of data, and ethical, political and social problems of social science research.

During the first few weeks the bulk of class meetings will be devoted to specific methodological problems in undertaking research such as the construction of questionnaires, systematic observation of behavior, content analysis, manipulation of independent variables in experiments, and statistical analysis of data. During the remainder of the term the bulk of each class meeting will be used by student researchers for planning, consulting with the instructor about, and carrying through their research projects.

This course will be valuable for students who want to gain competence in undertaking behavioral research; it should help students to obtain some of the necessary tools and experience to do their own research. Enrollment is by consent of the instructor and is limited to 30 students. Preference will be given to those in Division II.

SS 207 SEMINAR: PSYCHOTHERAPY
Louise Farnham

The focus of this seminar will be upon the process of psychotherapy with emphasis on the therapist/client interaction, reasons for clients' desiring and resisting change and various methods of facilitating change. Reading will include various personal accounts by therapists of their experiences endeavoring to facilitate change as well as more theoretical views of the relationship between personality dynamics and therapeutic strategies.

The seminar will meet once a week for two hours and there will be individual 45 minute tutorials once a week.

Students will be expected to discuss their own work with clients during these tutorials and to relate their experiences with material discussed in the seminar.

Participation in the seminar is strictly limited to students in Division II who are working in field placements during Spring term 1975 or who have worked in field placements during Fall term 1974. The seminar is limited to 8-10 students with written permission of the professor required.

SS 208 POLITICAL THEORY:
AMERICAN LIBERAL THOUGHT
Joan Landes

This course is designed to introduce students to the main contours of American political thought. It begins with the foundations of American liberal thought in 17th century England and proceeds to an examination of the American political tradition over the last 200 years. We will investigate the writings of such thinkers as Hobbes, Locke, the Founding Fathers, Calhoun, Thoreau, Dahl, Galbraith and Lipset. Finally liberalism (as developed in the above texts) is examined in light of an emerging radical counter-critique. How far have the critics transcended the pre-suppositions of their targets?

The course will meet twice weekly for 1 1/2 hours per session. Enrollment is unlimited.

SS 209 (LC 257) VERBAL AND NON-VERBAL DIMENSIONS
OF COMMUNICATION
John Hornik and Jan Tallman

See course description under LC 257.

SS 210 (NS 277) HOMOSEXUALITY AND THE SCIENCES
Michael Gross

See course description under NS 277.

SS 211 (NS 288) MODELS OF SCIENCE IN CULTURE
Ming Ivory

See course description under NS 288.

SS 212 (NS 202) ENVIRONMENT: SENSE AND
SENSITIVITY
Ralph Lutts and Mark Stephenson

See course description under NS 202.

SS 213 PROBLEMS IN EUROPEAN INTELLECTUAL HISTORY:
THE GENESIS OF HISTORICAL THOUGHT
Anson Rabinbach

This course is designed to give Division II students access to the fundamental developments in 19th and 20th century European thought from the viewpoint of a single problem: the debate between the historical and the "scientific" analysis of society. This debate is so crucial to the development of European intellectual history that a close examination of the major writings provides a context in which most other aspects of European thought first become intelligible. Among the major thinkers considered will be: Kant, Hegel, Marx, Comte, Weber, Lukacs, Popper, Marcuse, Habermas. The course will consist of close reading and discussion.

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

Enrollment is unlimited. Division II students only.



SS 214 THE BOSTON REGION
Harris Stone

A region is a complex of social, economic, and environmental factors. As such, it provides an important source of raw data for a multi-faceted analysis of our society. Selected topics (e.g., changing land use patterns) will be investigated in an effort to develop a coherent method of analyzing the urban-suburban-rural fabric: what it is, how it developed, how it functions, how it changes.

A word about Studio: a studio course offers the opportunity to develop various techniques of gathering, evaluating, and presenting both factual data and subjective impressions. Studio work further offers the opportunity to develop skill in presenting ideas in graphic form (maps, charts, etc.) and in various media (slides, motion pictures, video and an audio tape, etc.). The Studio will be organized as a series of team projects which entail both individual and collective work and offer the opportunity to develop methods of inter-disciplinary study.

The course will meet once a week for three hours. In addition students must be prepared to commit one full day per week to field work.

Enrollment is unlimited.

SS 215 CAPITALISM AND EMPIRE SEMESTER II
(THE 19th AND 20th CENTURIES)
History Group (C. Bengeladorf, P. Glaser, E. Greer,
L. Nisonoff, A. Rabinbach, S. Weiner, P. Weaver)

The second semester of this course will focus on the class structure of advanced capitalist society, the development of industrial and monopolistic capitalism, the political and social implications of this development, and the growth of colonialism and neo-colonialism. The course will include European, U.S., and Third World developments, concentrating on the rise of the American empire and contradictions in the advanced capitalist world.

The course is clearly not intended to be comprehensive. Its purpose is to give Division II students sufficient historical and conceptual knowledge to provide the basis for a social science concentration. The course will be given by a group of faculty from a variety of disciplines (history, law, political science, economics) concerned with historical questions and an historical approach to the development of society. By working as a team, by focusing on several key events, certain essential books and debates, and by providing some narrative history, we can cover a large period of time and still provide a basic interpretation of the history leading to the development of contemporary society. Not a narrative "survey" course, our interest is in the development of modern institutions, questions of political economy, social structure, power, colonialism, imperialism and revolution.

Open enrollment: Division II students only.

SS 217 INTRODUCTORY ECONOMICS
(GROUP INDEPENDENT STUDY)
Frederick Weaver

An introduction to economics 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.

Grades will not be given to Five-College students.

Enrollment is unlimited.

SS 218 INTERMEDIATE MACRO-ECONOMIC THEORY
(GROUP INDEPENDENT STUDY)

Frederick Weaver

An advanced course in aggregate, or Keynesian economics which is the prevailing conceptual framework for understanding unemployment, inflation, growth, and the role of governmental policy in regulating the overall level of national economic activity; for students whose concentrations involve considerable economics study and have a background in economics comparable to that of an introductory course.

The principal text for the course is Cochrane, Guber, Elker, *Macroeconomics*. We will meet for two 2 hour classes per week.

Grades will not be given to Five-College students.

Enrollment is unlimited.

SS 219 ECONOMIC HISTORY OF THE
UNITED STATES
Laurie Nisonoff

The course will be a study of the development of capitalism in the United States from the colonial period to the present. We will begin with material on the origins of capitalism in Europe, and theoretical analyses of the development of capitalist society.

We will be primarily concerned with the development of the capitalist mode of production, the interrelationships with the state and the response of the workers to capitalism. We will consider various analyses of these interrelationships that see notions of class, race, ethnicity and sex. We will also trace the changes in the economic organization of the household, and the role of women in the various periods of capitalism.

The course will also contain sections on the current topics of debate within the field of American economic history: did slavery pay? were the railroads necessary for economic development? and what determined the growth of cities? We will work on developing skills in economic historiography and methodology.

The course will meet once a week for two hours with extensive independent reading. Five college participation is welcome. Students should have done some previous work in economics or history. Enrollment is unlimited.

SS 221 RACISM AND THE LAW
Mary Kaufman

This seminar will explore racism and the law with special focus on the following two areas: 1) the operation of the criminal law on blacks and other minority groups; 2) the response of society to attempts through the law to adjust the inequities within our educational institutions.

We will examine the institutions of racist oppression in the criminal law system such as arrest procedures; pre-trial detention and bail systems; the jury selection system; trial and the problems of adequate representation. In addition we will explore different tools devised by lawyers, socialists and psychologists to minimize racism in the jury selection system and other areas.

We will also examine the law on racism in education in general and focus on the busing issue and on the issue of special rules governing admission of minority students in universities. We will examine the De Funis graduate and graduate schools. We will consider preparing material for an amicus case and will consider preparing material which challenges the brief or for other use in a case now pending which challenges the admissions policies of New York University Law School.

The class will meet once weekly in two hour sessions every Thursday. It is expected that the seminar will result in two papers, one dealing with new proposals for minimizing racism in criminal cases and the other with a position paper for possible use in the suit challenging N.Y.U. Law School minority group admission policies.

Enrollment is limited to 25 students on a first come first serve basis.

SS 222 (HA 294) MARXIST AESTHETICS

Carol Bengeladorf, Lawrence Fitzhugh, Jesse Spohn*, Phil Kudla*, Peter Brosius*, and Jim Gold*

This is a course about radical perspectives on the Arts. Marxist Aesthetics is a way of understanding all artistic life both theoretically and practically. It explains for example the contradictions of the writer in capitalist society from Balzac to Beckett and shows how some writers like Brecht or Neruda have tried to break out of that straightjacket for revolutionary reasons. It analyzes, in brief or for other use in a case now pending which challenges the admissions policies of New York University Law School.

The course is in fact divided into three courses and students can choose one of the three areas outlined below. There will also be one regular weekly meeting of 2 hours at which we will discuss a fully schematized series of topics including *Art and Alienation*, *The Artist as Worker*, *The Art Work as Commodity*, *Art and Revolution*, *The Artist and his Audience*, etc. This meeting will use films, plays, texts for illustrations. This meeting will use films, plays, texts for illustrations. This meeting will use films, plays, texts for illustrations.

*Note: For the word *Artist* or *Art* substitute poet, writer, film-maker, composer, sculptor, etc. whichever is your interest.

1. Art, Cinema and Revolution 1915-25
Jessica Spohn and Phil Kudla

This course is divided into two sections. On the one hand an historical view of two Russian artists: Vasily Kandinsky and Kazimir Malevich whose careers paralleled the revolution. We will study their writings on art and aesthetics, their roles in the revolution and its effect on their lives as artists. The format will be slides, lectures and guest speakers. On the other hand a consideration of the work of two great film makers of that period, Dziga Vertov and Sergei Eisenstein. Points of focus will be a) historical. How Vertov and Eisenstein derived elements of their aesthetics from their particular socio-historical context; b) theoretical. How their work aims towards the determination of a radically new personality and consciousness arising from concrete changes in social relations. The format will be films, lectures and discussions.

11. Political Performance: Aesthetic Theory and Critical Practice
Peter Brosius and Jim Gold

This workshop will explore some of the following ideas: the

TOPICS IN EDUCATION

UNDERSTANDING SCIENCE
ES 110 (NS 125)

N. Lowry

THE OPEN UNIVERSITY OF GREAT BRITAIN
ES 111 (NS 114)

A. Kraas

STUDY OF THE BRITISH INFANT SCHOOLS
ES 113

A. Gengarelly

PATHWAYS AND BARRIERS TO GOOD
COMMUNICATION BETWEEN PERSONS
ES 114/214

L. Gordon

G. Gordon

MAKING SENSE OF A COMPLEX EDUCATIONAL
STRUCTURE - HAMPSHIRE COLLEGE
ES 115

M. Sutherland

PUBLIC POLICY AND EQUAL EDUCATIONAL
OPPORTUNITY
ES 116

R. Alpert

ORGANIZED ANARCHY: THE AMERICAN COLLEGE
PRESIDENT
ES 117/217

D. Kegan

HUMANISTIC EDUCATION FOR YOUNG CHILDREN
ES 118/218

J. Hardin

VALUES CLARIFICATION WORKSHOPS
ES 119

J. Goodman

TURTLE - A THINKING GAME IN ELEMENTARY
SCHOOL
ES 122

M. Bruno

"SCHOOLS, THE MYTH AND THE METHOD"
ES 123

J. Kortcamp

THE HIDDEN CURRICULUM
ES 220

G. Joseph

ES 110 (NS 125) Understanding Science

Nancy Lowry

Independent Study - Science workshops and packages.

I hope to be able to develop self-study units on elementary chemical and scientific principles and observations aimed at youngsters, college chemistry students, college non-science students and people out and around in the world with little or no science background. In conjunction with this work I would hope to carry out a sound unit already planned by myself and local teachers.

Enrollment is limited to 12 - see me. See me also concerning meeting times.

ES 111 (NS 114) The Open University of Great Britain

Allan Kraas

The Open University in Great Britain produces courses in all academic disciplines and these are taken either for degree credit or for pure enjoyment by students all over Great Britain. The only entrance requirement is that the student be over 21 years of age. The students work at home in their spare time except for a one-week summer school at which they can meet and talk with the faculty who prepared the course.

The teaching methods are multi-media, using printed material, tape cassettes, radio and television broadcasts and personalized instruction by tutors.

This course will give an intro to this system and a critique of its effectiveness in Great Britain as well as its possible adaptation to the USA.

This course is a module which will meet 2 1/2 hours each week for a period of 3 weeks beginning April 10, 1975. Enrollment is open.

ES 113 Study of the British Infant Schools

Ann Gengarelly

British infant schools have had a tremendous impact on American education, particularly in the trend toward "open education." Through films, discussion, guest speakers, articles by Joseph Featherstone, Ronald Barth and others well acquainted with the English primary schools, we will explore the differences and similarities between the two countries, the origin of this educational trend in each, and inspiration and "good" we can receive from the example of the British. This course is a plea toward opening ourselves to the provocative movement in the English infant schools, yet bearing in mind the problems that evolve when one country abstractly translates another's experience into their own, consequently inviting the danger of increased rigidity of thinking and methods.

The class will meet 3 or 4 times and each session will be 2 hours. Enrollment is open.

ES 114/214 Pathways and Barriers to Good Communication between Persons

Linda and Graham Gordon

A weekend workshop dealing with the impact of personal filters on communication, the integration of sight, sound and symbol in communication, and the setting of contexts in which persons can hear.

Workshop is scheduled for the weekend of March 8, 1975, with two Saturday sessions and one Sunday session. Enrollment is open.

ES 115 Making Sense of a Complex Educational Structure - Hampshire College

Michael Sutherland

An analysis, including body counts and hierarchies and a review of financial structure.

The class will begin April 14 for four weeks. Day and time to be announced. Enrollment is open.

ES 116 Public Policy and Equal Educational Opportunity

Richard Alpert

This module will concentrate on efforts by the federal government and the judicial system to foster equal educational opportunity for the poor and racial minorities. We will analyze the philosophical principles involved in the concept of equal educational opportunity and explore three areas of policy aimed at bringing it about. These will be equal educational expenditures, school desegregation, and the movement for community control of schools.

The basic reading for the course will be Christopher Jencks, et. al., Inequality. Each student will be expected to write an analytical paper to explore one policy area.

The class will meet twice a week and each session will be 1 1/2 hours beginning February 5, 1975, for a four-week period. Enrollment is open.

ES 117/217 Organized Anarchy: The American College President

Daniel Kegan

"The American college or university is a prototypic organized anarchy. It does not know what it is doing. Its goals are either vague or in dispute. Its technology is familiar but not understood. Its major participants wander in and out of the organization. These factors do not make a university a bad organization or a disorganized one; but they do make it a problem to describe, understand and lead." Cohen and March, Leadership and Ambiguity: The American College President.

I'd like to spend our time together discussing this brief 200 page book, with reference to organizational behavior, leadership, American education, and Hampshire. We'll meet for two hours, once a week, for four weeks. I expect we'll all have the book started by the first meeting, finished by the third. Suitable for inquiry for Division I and II. (My involvement with Hampshire's institutional research and evaluation is sure to manifest itself, along with my other more general concerns.)

The class will meet once per week for two hours beginning March 10, 1975. Enrollment is open.

*Daniel Kegan is Director of Institutional Research and Evaluation at Hampshire College.

ES 118/218 Humanistic Education for Young Children

Joy Hardin

We will look at the contributions of humanistic education to pre-school, kindergarten, and primary classroom. During the first two weeks we will build a cursory framework of developmental theory (primarily Piaget, Loevinger, and Kohlberg) so that we can critique various Human Development and Affective curricula for young children from this perspective. The second two weeks we will focus on real classrooms for which we will design, try out and evaluate a sequence of experiences on some theme (e.g. expressing feelings, sharing, conflict resolution.) By the end of the module, students should be able to identify developmentally important themes for a group and design appropriate exercises.

Clearly this would be a presumptuous undertaking without considerable background on the part of participants. The prerequisites, therefore, are familiarity with at least one of the developmental theorists and experience teaching in a pre-school, kindergarten, or primary grades.

The class will meet twice weekly for two hours, beginning March 10, 1975. Enrollment will be by instructor selection.

*Joy Hardin is an instructor in the Outdoors Program at Hampshire College.

ES 119 Values Clarification Workshops

Joel Goodman

A series of four evening workshop sessions.

Sessions will be held Wednesday evenings; time to be announced later. Enrollment is limited to 10 students on a first come first served basis. However, the workshops will also be open to 10-15 other students on a workshop-by-workshop basis.

*Joel Goodman - School of Education, University of Massachusetts.

ES 122 TURTLE - a thinking game in elementary school

Merle Bruno

"Turtle" looks like a real turtle on wheels. It is transparent and hitched to a computer, can be ordered to wheel around, foot, trace its journey and turn on a headlight. It was developed to be used in elementary school classrooms to give children an opportunity to think about and work with mathematical concepts. People who have used it say "children get over their fear of making mistakes, learn to make computer animations and can even work on language projects." I have never seen Turtle in action and I know almost nothing about computers. I would like to spend a few weeks playing with it and talking about its potential use in classrooms. I have no opinion about it yet so if anyone wants to spend some time playing with it, please let me know and I'll work out borrowing Turtle for a few weeks in March.

I hope people who are interested in teaching but don't particularly like math will come (as well as math-freaks) and maybe some local teachers will join us too. If you are particularly excited by this idea, talk to me soon. I could use some help organizing everything.

The class will begin March 10th, will meet for 3 weeks and is limited to 20 students on a first come first served basis.

ES 123 "Schools, The Myth and the Method"

John Kortcamp

This module will investigate the gap between theory and practice in the schools. All too frequently we hear administrators or teachers saying things like "our kids come first" or "we're very open here" or "this school has been on the forefront of change." However, when one spends time in those same schools, it becomes apparent that somebody is being less than honest in the description of the actual practice in the schools.

In this module we will be looking at some of the real purposes of schooling and determining why such a credibility gap exists.

The module will meet twice a week for one and a half hours and will be comprised of seminar discussions based on films and readings. Specifically, we will be considering the content of the film, "What they want to produce, not what we want to become" and reading two books: The Great School Legend by Colin Greer, and Must We Educate? by Carl Bevelier. The module will meet on Mondays and Wednesdays from 10 to 11:30 a.m. in the center room of dorm five. The class will begin the first Monday of the semester and is limited to 15 students. Sign up is on a first come first served basis.

ES 220 The Hidden Curriculum

Gloria J. Joseph

The module will be developed within the areas of socio-economic stratification; the misuse of I.Q. testing; and the influence of culture on school achievement.

The course will start the 5th week of the semester and will be offered to Division II students. Course limited to 20 students.

FOREIGN STUDIES
CURRICULUM STATEMENT

The Office of Foreign Studies counsels students who are preparing for field or formal study outside of the United States as part of their Hampshire education. Within the preparation for foreign study, the office also supervises foreign language instruction. It serves as an information center for the many language courses offered on the Five College campus, and it conducts research of its own on policies and methods of foreign language learning.

A folder answering the questions students ask most about foreign studies and foreign language at Hampshire can be obtained at the Office of the Dean of the College, Science Building 119, or in Room 218 of Franklin Patterson Hall. For answers to more specific questions, the student should attend the Foreign Studies meeting during the opening of Spring Term. The student may also schedule at any time an appointment to discuss these opportunities with Mr. Watkins by calling 342-4664 or by signing up at his office in Room 201 of Franklin Patterson Hall.

Of the Five College language courses, those offered on the Hampshire campus for Spring Term 1975 are the following:

ES 110, 150, 210 SUPERVISED SELF-INSTRUCTION IN FRENCH

James Watkins

This course is designed primarily for those who plan to work or study in a French-speaking country. Students taking it range from beginners to those with more than six years of previous training. It can be started at any time during the academic year.

The course comprises thirty-three units leading to a solid proficiency in all skills. The student must demonstrate fluency in one unit before proceeding to the next. This fluency is reached: (1) by work with materials especially conceived for self-instruction, and (2) by private meetings with the instructor. Average time for the completion of a unit is fifteen hours. The concentration of this time and the rate at which units are completed are determined personally by each student.

For students from the other colleges where a question of credits may arise, the number awarded at the end of a given term will depend upon the number of units completed. Generally, three to four units will give one credit.

Each student should consider the purchase of a good, reliable cassette player as a necessary expense. The number available through library loan is limited.

Enrollment is open, but a personal interview with the instructor is required. Make an appointment with Mr. Watkins by calling 342-4664. Course meetings are individually arranged with each student.

ES 115 SUPERVISED SELF-INSTRUCTION IN SPANISH

Seymour Pollock

This course is designed for those students, especially beginners, who wish to advance toward an active competence in Spanish, but at their own pace. Those registering for the course will meet as a group with their director at the beginning of the semester for intensive work in phonology and for acquaintance with methods and materials. Thereafter, students will meet independently with him as their needs might warrant and for testing purposes.

Enrollment is open, but a personal interview with the instructor is strongly recommended.

Spring Term Course Guide 1975

FS 135 SUPERVISED SELF-INSTRUCTION IN PORTUGUESE

Seymour Pollock

Subject to demand. For description see the listing for Supervised Self-Instruction in Spanish.

FS 145 READINGS IN HISPANIC LITERATURE

Seymour Pollock

Through close reading of a selected list of Hispanic works an attempt will be made to explore man's changing relation to himself, to his family, and to his social and natural environment. Since the books chosen for study and discussion will require solid understanding of language, a sure competency in Spanish is therefore indispensable. The class will be conducted in Spanish and will be organized around written and oral assignments.

Enrollment is limited to twelve students. Classes will meet 1 1/2 hours twice a week (Monday and Wednesday from 2-3:30).

NOTE: See also ES 105, Field Work in Bilingual-Bicultural Education in Holyoke (Instructor - Seymour Pollock).

FS 220 FRENCH TUTORIALS

James Watkins

For those students who have completed FS 210 or its equivalent and who are planning for the near future field or formal study in a French-speaking country, guided reading and discussion in French can be organized around subjects answering special needs and interests.

Approval is necessary before registration. For an appointment with Mr. Watkins, call 542-4664.

FS 250 L'EXPRESSION LITTÉRAIRE: SENS ET CONTRESENS

James Watkins

This course, as described below, continues the study of French for the student who has completed the basic courses, has lived in a French-speaking country and has now mastered the everyday use of the language. It introduces the student to an understanding of French as an instrument of personal, original, literary expression, and by so doing serves to prepare the student for literary studies in a French university.

Traduire, c'est trahir beaucoup. L'empreinte d'un auteur lui est originale et ne peut se comprendre que dans la langue même qui lui est propre. Le cours consistera donc à étudier un auteur à travers sa langue, à étudier non ses simples jeux de mots mais le jeu de ses mots et leur plein sens selon leur origine, leur place, leur sonorité, leur composition. L'élève fera surtout son étude dans le texte même, en exploitant au maximum les connaissances qu'il possède déjà.

Hervé Bazin, de par sa langue un des plus français des auteurs contemporains, se prête particulièrement bien à cet exercice, et deux de ses romans en feront l'objet.

S'initier ainsi à la langue littéraire suppose une compétence déjà acquise dans la langue usuelle: le Certificat Pratique De Langue Française ou l'équivalent. Pour obtenir cette certification, il sera demandé à chaque élève, avant de s'inscrire, de prendre rendez-vous avec M. Watkins (542-4664).

L'assistance au cours sera régulière, la préparation rigoureuse, la participation active. Il est donc conseillé de s'en abstenir à ceux qui ne sont pas disposés à respecter ce régime.

La classe se réunira pendant une heure et demie deux fois par semaine.

DIVISION III INTEGRATIVE SEMINARS

WOMEN'S STUDIES

IN 311

P. Glazer
B. Turlington

HUMAN ENVIRONMENTS

IN 314

P. McKean
H. Stone
M. Wilcox
N. Morton

SOCIAL SCIENCE WORKSHOPS

IN 316

B. Linden

STYLES AND STRUCTURE

IN 318

R. Coppinger
C. K. Smith

MASS MEDIA: POWER, PRIORITIES, AND PARALLAX

IN 321

B. O'Leary
D. Kerr

EXPLANATION: INTEGRATIVE SEMINAR

IN 322

H. Bernstein
M. Radecky
S. Warner

ATHENS

IN 325

R. Meagher

SEMINAR ON COLOR

IN 327

A. Hoener
J. Murray
G. Witherspoon

INEQUALITY AND ACCESS TO JUSTICE

IN 329

R. Alpert
J. Landes
O. Fowlkes

HARD TIMES - A Student-Led Seminar

IN 330

T. Kizile
H. Lenow

IN 311 WOMEN'S STUDIES

Penelope Glazer and Barbara Turlington

What is women's studies? Are there common underlying themes, assumptions, methodologies which are useful to researchers interested in history, psychology, biology, sociology or art of women? How much reliance on traditional disciplines is necessary?

We will use the seminar to share bibliography, assist in clarifying methodological questions and to test out generalizations which might be emerging. Some recent interpretive readings will be used.

The course will meet once a week for two hours.

Enrollment is unlimited. Open to Division II students with permission of instructors.

IN 314

HUMAN ENVIRONMENTS

Philip McKean, Nancy Morton*, Harris Stone,
Margaret Wilcox, et. al.

This seminar is intended to gather together those of us who have a continuing fascination with our environment, and have been studying in depth some aspects of the arts or sciences, of social or natural history which involve relationships between humans and the spaces they perceive, inhabit, and transform. We use symbols to indicate this environment to ourselves, to give it form and order, to delimit sea and mountain, earth and sky, forest and garden, village and metropolis. But how are these symbols patterned in the past of the earth? Man (in the generic sense) is both the child of nature, mirroring the earth, and creator of nature, manipulating the earth. What environmental choices shall we make in our own future, and that of the world? What notions of architecture and agriculture, what visions of economic evolutionary engineering may be germane to the environmental issues which must be met? What shall we say to the crises predicted ahead for the human family -- from the population pressures to energy sources? Surely these and other environmental issues will touch on the Division III research and the continuing interest of students from a broad range of diverse experiences. We will expect to hear, early in the seminar, about the work of each member, encouraging the comment, criticism and feedback likely to provoke refinement and articulation of method and theory. We will attend to a number of books in common, including the following: A. G. H. Smith, R. Dubos, *The Human Prospect*, R. Heilbroner, Ark II, P. Erlich, *The Immense Journey*, L. Riley, *Secular City*, N. Cox.

Enrollment is open. Meeting times to be announced.

*Nancy Morton is a Division III Hampshire College student.

IN 316

SOCIAL SCIENCE WORKSHOPS

Barbara Linden, et. al.

One month long seminar intended to assist Social Science Division III students who are in the process of working on projects. Students enrolled will report on their project to fellow students and faculty with the objective of receiving advice, information, corrections and guidelines for appropriate and solid project completion. Attention will be focused on such aspects as research design, conduct of research, and the reporting of findings. It is hoped that these workshops will continue with changing membership of both students and faculty throughout the year so as to best suit the timing of students' work through both semesters.

There will be two evening meetings per week of two-hour duration each.

Enrollment: workshops are limited to eight students per month on a first come first serve basis. No workshops will be given in May.

IN 318

STYLES AND STRUCTURE

Charles Kay Smith* and Raymond Coppinger

As you proceeded through Hampshire College you should have begun to realize that disciplines had structures whereas individuals had certain styles within those disciplines. Throughout your studies, we have encouraged you to develop your own styles and structures.

This seminar is designed to explore in an integrative way styles and structures in thinking and writing. It is hoped that it will help you know and identify your own expertise and to help you polish your individual styles. In the process we hope to analyze many structural ways of thinking and writing and explore the styles of some of the "greats" in their attempt to communicate their ideas.

We hope that Division III students from all four schools at Hampshire will participate and there will be some students from the University of Massachusetts enrolled.

Enrollment is open. Meeting times to be announced.

*Kay Smith is a professor of English at the University of Massachusetts. He has recently published a book entitled "Styles and Structures." He is currently writing a second book with Professor Coppinger on human evolution.

IN 321

MASS MEDIA: POWER, PRIORITIES, AND PARALLAX

Brian O'Leary and David Kerr

This seminar will explore the following related questions:

- What is the role of mass media in determining political and social decisions?
- What is the role of mass media in establishing and reinforcing priorities and attitudes?
- Who uses mass media to elucidate, complicate, obfuscate, dictate, and disintegrate?
- What are their methods?

(Note: "Mass Media" as we're using the term includes special interest publications and some reports and findings destined for limited circulation.)

Students will be encouraged to explore some mass media ramifications of the specific area of interest they are pursuing in their Division III work. For example, a student interested in studio art might wish to learn more about the role of mass media in determining critical standards and influencing trends. A student of literature might be curious about the process by which an excellent novel remains known only to a few while the *Godfather* breaks publishing records. An environmental studies student could be fascinated by the advertising war between oil companies and environmental groups. A law concentrator may be curious about whether pretrial publicity really could affect a jury's decision. A genetics student may wonder why science reporters seem to distort findings and mislead the public, and so on.

The seminar will begin with readings and discussion about the evidence of mass media effects and explore as a first case study the question of media's role in NASA's projects and politics.

Each student will be expected to make a presentation to the seminar and submit the results of his or her research.

The seminar will meet once a week on Wednesdays from 3:00 to 5:30.

Enrollment limit: none

IN 322

EXPLANATION: INTEGRATIVE SEMINAR

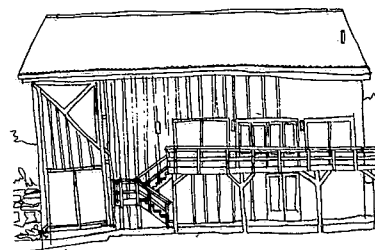
Herbert Bernstein, Michael Radecky, Stanley Warner

We want to bring together students doing Division III work in natural science, social science, and philosophy of science to discuss theories of explanation and their significance for the methodological practices of natural scientists and social scientists. We will begin by investigating some contemporary work in theory of explanation, and raise questions about the nature of laws and theories, the relation of theory to observation, and the connection between causation and other types of correlation.

After this, there will be an introductory presentation on the role of explanation in the natural sciences, after which students will be given an opportunity to discuss the problems of their Division III projects in science as attempts at, or parts of, scientific explanations. This sequence will be repeated for work in the social sciences. Hopefully we will then have time to discuss any interesting divergences in approach which we find.

The seminar will meet once a week for three hours.

Enrollment limit: none



IN 325

ATHENS

Robert E. Meagher

To integrate is not to mix or to cross or to confuse; in fact, to integrate is itself a misnomer. For what is integral is already of itself one and pure and whole -- a source and a fulness to be discovered rather than assumed. The concern for integration is thus the concern to disclose and to dwell in a moment and in a place in which seemingly disparate energies and aspirations and designs cohere. The moment of intellect and imagination and history that is ancient Athens seems indeed to have been and to retain such a point of origin and fulness. Each member of this seminar will trace a path of return from a particular contemporary concern or discipline to the Greek preoccupation. Physicists may then find themselves in discussion with Democritus, pre-medical students with Hippocrates, while other students with each of these interests. The emphasis in each case will be upon original sources which will enable each student to discuss and to argue and to explore their own concern in the company of ancient Greek counterparts as well as in the somewhat hallowed company of fellow Division III students.

To qualify for this seminar each interested Division III student must submit a brief statement of interest to Robert Meagher (Warner House 6) by Wednesday, November 27, indicating the title and scope of his/her Division III independent study project and the specific area(s) of interest relating to this seminar. Students accepted to the seminar will then be notified prior to pre-registration and conferences will be scheduled so that each student might get underway before the second term in exploring the classical sources bearing on the questions and concerns of these seminars. The hope is that throughout the members of the seminar will explore with some thoroughness each of the essential dimensions of Athenian life in their own interrelatedness and in relation to our own life and thought. "Future ages will wonder at us," said Pericles of his native Athens, "as the present age wonders at us now." Perhaps it is the truth of these words and of this wonder which may be thought of as a central and shared hope for this seminar.

Class will meet twice a week for a total of four hours. Instructor selection.

IN 327

SEMINAR ON COLOR

Arthur Hoener, Joan Murray and Chris Witherspoon

This seminar will be a forum for investigating in depth any aspect of color be it theoretical, artistic, psychological, or scientific. The particular aim will be to explore one's own color interest while sharing the process and results with others who are involved with different aspects.

This exchange should provide an invaluable resource for expanding one's thinking and will allow students to investigate color in a more thorough and comprehensive manner than would otherwise be possible.

Class will meet once a week for three hours. Instructor selection.

LEGAL STUDIES

The Law Program is multidisciplinary. We are interested in examining 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. In particular, the Program includes courses, independent studies, concentrations, Division III projects, public events, field study support and supervision, and the acquisition and maintenance 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 as part of their undergraduate education, the Law Program as such is concerned only with the latter. Pre-law counselling is done by Bruce Carroll, Oliver Fowlkes, Edward Greer, Lester Mazor and Kenneth Rosenbhal.

Each year the LAW Program offers some courses in Hampshire's Division I Law 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. These Division I courses are usually topical in nature. During the spring semester of 1975 we will offer SS 119, McCarthyism: Political Hysteria and Oppression in the United States; Navy Kaufman, Visiting Professor of Law; SS 198, The Forgotten People; Oliver Pylakes.

The Division II 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 II courses not only as the foundation, but also as the entry point for their work. The most basic and general courses are usually offered in the fall semester. This spring we will offer SS 221 Racism and the Law, Mary Kaufman; SS 298, Constitutional Law: Civil Liberties in Kaufman, Bruce Carroll.

Division III Seminars are designed to address a broad topic requiring the application of various disciplines and involving diverse values and judgments as well as data and methods. This spring we will be offering an Interactive Seminar on Inequality and Access to Justice led by Richard Elliott, Tom Inder, and Oliver Fowlkes.

For other legal studies courses offered in the 5-C area, refer to the Legal Studies Booklet published by the 5-C Coordinator's Office.

Independent studies related to law may be done under the supervision of any of the faculty working in the Law Program. In particular, Bruce Carroll specializes in American Constitutional Law and the legislative process, and can assist students in arranging government work placements. David Levermore is especially interested in mental health, the legal profession, representation for the poor and welfare law and can provide assistance in arranging field work placements; Edward Greer specializes in legal procedure; John Horroik is interested in law and psychology; Mary Kaufman is renowned for her work in law, prisoners' rights, political trials and racism; and Lester Munn has extensive experience in all aspects of urban planning and organizational aspects of law enforcement; Lester Munn is especially interested in legal history. The philosophy of law and family law (on leave spring 1975); Kenneth Rosenthal's special interest is in zoning, planning and other aspects of land use; Barbara Yngvesson has special interests in law and politics; Barbara Yngvesson has special interest in social control and conflict resolution processes outside the more formal mechanisms of legal activity, field study of legal processes and institutions, and anthropology (on leave spring 1975).

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, law and theater, 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. Copies of concentration statements are available at the Law Program Center in Patterson Hall.

Several Division III projects already have been completed with support in whole or in part from the Law Program. Students who wish to consider doing their Division III project in the study of some legal phenomenon should consult with members of the Law Program Steering Committee.

The Law Program has sponsored a number of House Courses in past years. Members of the Hampshire Community who are interested in organizing such courses with the support of Law Program faculty are encouraged to talk to members of the Steering Committee.

The Law Program regularly sponsors speakers, films, and other special 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 submit a letter for comment to the Steering Committee.

No formality of admission or membership is required for participation in the Law Program. The easiest way to indicate affiliation and to keep informed is by placing your name on the Law Program mailing list so that you will receive notices of Law Program events and activities. The list is maintained by Gele Gustavsen. The Law Program Center, where students working in the program are assigned, and conduct their activities is in Patterson Hall, G - 13. The Program also holds regular informal lunch discussions in Prescott Dining Hall, so that students working in the Program can become acquainted with each other and share information and ideas. Announcements of these luncheons will be made by law and individually by mail to those on the Law Program mailing

R. Bruce Carroll
E. Oliver Fowlkes
Ken Garfield
Ed Greer
Gale Gustavsen
Pat Hennessey
Howie Lenow
Barbara Linden
Lester Mazor
Meredith Miller
John O'Malley
Joe Rutledge
Barbara Yonewasson



The inability to write well in college is widespread, not limited, and the task of teaching writing in college is a general responsibility, not a chore reserved for English teachers.

We are beginning, this Fall Term, to develop a college-wide writing lab for dealing with the range and variety of writing problems typical at any liberal arts college. Robert Taft and Patricia Smith will continue to offer

We are beginning, this Fall Term, to develop a college-wide writing lab for dealing with the range and variety of writing problems typical at any liberal arts college. Eugene Terry and Francis Smith will continue to offer their writing workshops as regular HAA courses in College Writing. Brown Kennedy will offer a January Term course which will focus on the writing of the Divisional Examinations. Doty Bazel, working out of the Dean's Office, will again be available to offer ongoing individual or small group reading and writing tutorial. Natalie Colman and other members of the Library Center staff will work with this group of faculty to develop special notation units on such important research problems as location of sources and offprints.

We shall also begin, with the cooperation of faculty members from the other Schools, creating special modular units with special emphasis on Social Science research, Natural Science reporting, and Communications skills of all the kinds one is likely to require in college. Although it is impossible now, in advance, to specify what the content of such units will be, their creation and development will begin early in the Fall Term, and students will be asked to indicate where they feel the greatest needs lie, so that we can respond effectively.

The general model we are planning will probably include these components: A full-term course in writing, individual tutoring, and some type of recurring modular instruction in writing and study skills which would involve faculty from each school.

One planned program will involve a one-month module in the Fall Term for Division III students on research methodology, taught jointly by a member of the faculty and a member of the library center staff. At that time, with preliminary project proposals in hand, students will be assigned to a project. The project will be assessed and he or she could be directed to a tutorial in writing or into a module or January Term course on the design of a research paper. In the Spring Term, another module for students of particular interest in the field of library, scientific writing could be taught by the faculty member. At the Division I or II level, members of the library staff and school faculties could provide a range of options for students. The Division I level could be a writing workshop, but I have suggested that a short course could be taught on how to prepare a transcript; this might well occur in a January Term faculty commitment from any of the schools. We are all concerned that students be able to develop skills in writing and writing in the workplace.

The four School Advising Centers will be used as information centers for the Writing Lab as it develops. Any students in any Division in any School who want to find out about special work in College Writing should take the question to a School Advising Center.

The staff of the Library Center is teaching a series of classes on information sources and library resources in specific subjects. Each topic includes a printed research guide to locate and use indexes, strategies for subject searching, general reference tools, etc. The classes and reviewing services, given at reference tools, etc. The classes will meet for an hour each, repeated one to three times in a day during the first three weeks of March (March 3-21). The actual times and dates will be announced during February for the following topics:

Introduction to the Hampshire Library Center
Environmental Studies
American and English Literature
Mass Communications
Black Studies
Human Biology
American In-~~tern~~
Film and Film Study
American History
Urban Studies
Legal Studies
Art
Architecture and Urban Design
Music Sources
Women's Studies
Psychology
Education
Documents

For more information and to add suggestions for spring or fall
terms, contact Anne Peyton or Susan Dayall, x4833 in the Library Center.

Mathematics is a sprawling and pervasive field, variously viewed by its practitioners as a tool, an art form, a language, the ultimate reality, or esoteric artificiality. The traditional classification of mathematics among the sciences indicates a fruitful joint evolution rather than shared methodology. Statistics is often classified among the social sciences and computer science is tentatively joined with engineering. The power of mathematization in these fields continues to suggest strong interdisciplinary approaches.

Hampshire's mathematicians, currently in three Schools, seek to meet the short and long range mathematical needs of the College and to complement the strong mathematical curricula elsewhere in the Valley. While a traditional math major is possible at Hampshire, students are encouraged to explore the opportunities for interdisciplinary approaches and to join in the areas of special interest of the faculty.

In addition to the courses listed below, book seminars are frequently attached to physics courses. "Book Seminars" provide an opportunity for a small group of students to work together on a topic of mutual interest with regular meetings with a staff member. "Math Help" is available several nights a week, and "Prime Time Theorems" offer one-on-one classes of mathematics. These activities are announced in the *Mathematics* section 125. Since 1971 Hampshire College has been a member of the National Science Foundation's Summer Session in Mathematics. These programs have encouraged talented high school students actively in the process of mathematical thought.

Division I offerings will provide many alternatives to the calculus; courses or labs in statistics and computers will be offered each term. Division II students can plan on at least one course each term relating to each of computer science, statistics, and mathematical logic; a course in algebra will be offered each fall, and one in analysis each spring.

The following courses for Spring 1975 offer significant mathematical experience:

Division 1

LC 138 Automata Theory
LC 153 Computer Laboratory
LC 171 Seminar in Number Theory

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LC 169 (269) Higher Level Languages
LC 191 (291) Applied Algebra
NS 128 (228) Calculus Workshop
NS 123 (223) World of Mathematics

Division II

LC 249 Mathematical Properties of Transformational
Grammar
NS 208 Mathematical Physics and Vector Mechanics
NS 213 Analysis Through the Ages: The History of Calculus

OUTDOORS PROGRAM CURRICULUM STATEMENT

The Outdoors Program is a voluntary, co-ed alternative to compulsory physical education and intercollegiate team sports. In the first three years of its existence, it has offered students extensive opportunities to learn mountain climbing and kayaking skills, with an orientation toward student and staff-initiated expeditions and trips. Equipment and arrangements for cross-country skiing, snowshoeing, backpacking, hiking, canoeing, and camping have been made continuously available.

The Outdoors Program for 1974-75 has decided to give special emphasis to integrating outdoor and physical learning experiences with the rest of college and of life. Programatically this means the Outdoors Program collaborating with Hampshire staff, faculty, and students in ongoing courses (a possible example: a canoe trip as part of "The American Literary Landscape") and expanding Outdoors Program courses to include interdisciplinary offerings (like David Roberts' and Ed Ward's "Literature of Great Expeditions" course).

"Fusion of body and intellect" has long been a goal of the Outdoors Program. This year body potential work -- the arts of self-defense, body awareness, and dance -- will be initiated alongside the ongoing climbing and kayaking programs.

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

A fourth major emphasis is on students self-directing their own physical and recreational development, rather than from team and competitive structures. The informal team sports possibilities will further expand this year with the new athletic-recreational building and director. In the past, Hampshire students have organized assorted teams: one of them, the hockey team, built their own outdoor rink behind the library.

During January Term and vacations, the Outdoors Program's major trips and expeditions occur. Climbing trips have included ascents in the Brooks range in Alaska, and three winter trips in the Colorado mountains; kayaking trips have included boating on the Rio Grande in Texas and two spring trips to Smoky Mountain rivers.

The Outdoors Program emerges as not a physical education department, not an athletics program, not an outdoor club, not an Outward Bound model, not a nature study program, not in the curriculum, and not a School of the College. What is it? It is an attempt to open up possibilities for integrated learning of body and psyche, to promote an awareness and understanding of nature, to support students in creating their own physical and outdoor experiences, and to join physical ways of learning about oneself and the world with other ways of acquiring knowledge.

OUTDOORS PROGRAM

- Top Rope Rock Climbing:** For people who want to learn top rope climbing. No rock climbing experience is necessary. Class will meet each Wednesday afternoon from 1:00 to 4:00 p.m. for four weeks. First class meeting will take place when the weather gets warm enough to climb and will be announced by the OP office. Sign up at the OP office in the Robert Crown Center. OP 100
- Top Rope Rock Climbing:** Same as above except meeting Tues. afternoons from 1:00 to 4:00 p.m. OP 101
- Lead Climbing Class:** For people with some rock climbing experience who wish to learn how to lead. Class will meet Friday afternoons from 1:00 to 6:00 p.m. First class will take place when the weather gets warm enough to climb and will be announced by the OP office. Sign up at the OP office in the Robert Crown Center. OP 102
- Lead Climbing Class:** Same as above, except meeting Weds. afternoons from 1:00 to 6:00 p.m. OP 103
- Beginning Kayaking Class:** This is for sheer beginners who have never paddled. After completion of this class a beginner is ready to go on to easy whitewater rivers. Fundamentals will be stressed and the paddling will be done on the Connecticut River and the Hampshire Pond. Sign up at the OP office in the Robert Crown Center. Time to be announced when weather is appropriate. OP 104
- Kayak Rolling Classes:** These classes will be learning the Eskimo Roll. Limit of 6 people per class.
OP 105 Tuesday 9 - 10 a.m.
OP 106 Wednesday 7 - 8 p.m.
OP 107 Thursday 2 - 3 p.m.
OP 108 Thursday 3 - 4 p.m.
OP 109 Friday 9 - 10 a.m.

Sign up at the OP office in the Robert Crown Center.

- Kayak Building Class:** This class will be held over a weekend in early February. Consult OP office for sign up sheet and details. OP 110
- Canoing and Natural History:** This course is intended to develop experience with open canoes for river running and lake expeditions, and at the same time introduce some notions about geology, meteorology, ornithology and forestry that make canoe tripping much more enjoyable. We will learn paddling and poling techniques for upstream as well as downstream travel; will make paddles and poles and will collect, as much as we can, information on the use and construction of the canoe by American Indians. If interest is there, we ought to think of making a bark canoe as well. Limit of 12 people. OP 111
- Environment: Sense and Sensitivity:** Same as SS 220/SS 202/OP 100. Class will meet twice weekly for two hours. The seminar is open to Division II and Division III students and Division I students who have a background in related fields. Limited to 20.
- Nature Trips:** Ralph Lutz, naturalist, will take day trips to local areas of ecological interest, mostly on weekends. Consult the OP bulletin boards and newsletter.

- Education of the Self Through Physical Activity:** Joy Hardin and Roy Tamashiro, instructors. Joy Hardin: Let me play with a man for an hour, and I will know more about him than talking to him for ten hours. E. Herrigel: In the case of (sports), the (player) and his (adversary) are no longer two opposing (persons), but are one reality. People involved in a sport unintentionally physicalize present concern manifest themselves as choices of movement, interactions, risks, and rewards. This course is designed to provide processes which enable people to make sense, judge and understand their interior states and their subsequent behavior. Our processes towards such self knowledge will be:

- Understanding the assumptions about self knowledge implied by each tool (instrument) (Example: fantasy as a tool derived from Freud's recognition of the unconscious, Jung's dreamwork, Assajoli's psychosynthesis techniques, and athlete's descriptions of pre-visualizing experiences.)
- Using analytical tools to make sense of the data gathered about oneself from one's involvement in physical activity (Example: One student used the crumple process to change her pattern of "blinking" just when I'm about to hit the (badminton) birdie... just the way I retreat at the point of real contact in a developing relationship.)
- Using these tools to expand her/his repertoire of physical affective and cognitive behaviors.
- Using these tools to expand one's experiencing of her/his body and mind.

Readings: from psychological theorists such as Perls, Leontiev, Maslow, Kelly, Assajoli; Zen in the Art of Archery, Herrigel; Golf in the Kingdom, Murphy; Born to Win, Jones and Jonegard; and other handouts and articles.

Format: Classes meet Tuesdays from 1:00 to 4:00 p.m. in the Center Room of Donut 1 and will involve exercises, processing, discussion. Participants will choose a physical activity (e.g., a sport, dance, martial art, hiking) to engage in on a regular basis. Through a personal psychological journal and a final paper/project, we will each record our reflections on body-psyche interactions.

Note: Education of Self is a course developed over the last five years at the U. Mass Center for Humanistic Education. It is based on the premise that knowing more about yourself, your patterns of thoughts, feelings and action, helps you get more of what you want. It is essentially an application of the scientific method using the self as content. Joy Hardin and Roy Tamashiro have developed and taught Ed. of Self Through Physical Activity for the last two years, integrating the physical as a source for data about self and a means of increasing one's intentionality. Roy is an instructor at the U. Mass School of Ed., Joy is on the staff of the OP. OP 201

- Women's Practical Self Defense:** Marion Taylor, Joy Hardin, instructors. This course is not to learn a martial art, but to feel like we are prepared for situations in which we want to defend ourselves. Thus we will work on breaking holds, falling, defending and striking. Hitting, street attack, and intruders are the situations we focus on. Consult the OP office or newsletter for times. OP 112
- Women and Physical Competence:** Joy Hardin, instructor. Each session we will try out some physical activity we want to feel more confident about or simply enjoy doing, other things we want to be able to do and enjoy, but our sex role training made us unfamiliar or unwilling to do. (e.g., things like touch football, wrestling, bike or car repair, building and construction, axe-throwing and other wilderness skills.) Another purpose is to define the particular ways we most enjoy using our bodies and our time together. (perhaps hiking, bike trips, cross-country skiing, snowshoeing, or canoeing) and explore them as why we enjoy them more fully. The assumption I work from is that the sources of strength in each other, women's feelings of strength or weakness in unrelated areas are affected. Thursdays, 1 - 5. OP 113
- Tai Chi Chuan:** Paul Gallagher, instructor. Tai Chi 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, centeredness, fluidity and understanding the principles of the ancient Chinese classics. The class times can be obtained from the OP office or newsletter. OP 114

- Shotokan Karate:** Marion Taylor, instructor. Shotokan 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 counter-attack to be used only if necessary. The beginning course will cover: basic methods of blocking, punching, kicking, and combinations thereof; basic sparring; and basic kata, a prearranged sequence of techniques simulating defense against multiple opponents. The advanced class will stress more advanced kata and the polishing of counter-attack combinations with greater emphasis on sparring. Times for classes will be announced by the OP. Check the newsletter and OP bulletin board in the Robert Crown Center OP 115

- Aikido:** Marion Taylor, instructor. Aikido is a Japanese form of unarmed self defense having NO offensive capabilities. It depends for effective use on the defender's 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 gently to the ground and pinned without doing any physical damage to him. The beginning class will learn: basic rolling falls both front and back; methods of leading the opponent off balance and into falling; types of pins; and ways to gain release from various grabbing or holding attacks. Check the OP bulletin board and newsletter for times. OP 116

- Spring Break Kayak Trip:** Trip to Bryson City, N.C. on the Nantahala and Chatanooga River. This trip will consist of two groups: beginner and advanced. People in the advanced group must have mastered the Eskimo Roll and provide their own equipment. Cost should be around \$60 per student. See the OP bulletin board and newsletter for specific times. OP 117

- Spring Break Climbing and Canyoning Trip:** Details of the trip to be announced by the OP. Watch the newsletter and OP bulletin board. OP 118

FEMINIST STUDIES

Although Hampshire does not presently have a formal feminist studies program, a number of faculty members are willing to help students with academic work in this field:

Social Science	Humanities & Arts
Laurie Nisomoff	Louise Brown Kennedy
Penine Glaser	Language & Communication
Monica Fulkner	Jan Tallman
Joan Landes	Natural Science
Louise Farnham	Carol Bengelsdorf
Lester Mazor	Gayle Hollander (on leave)
Carol Bengelsdorf	Wesley Slater (on leave)
Gayle Hollander (on leave)	Susan Goldner
Wesley Slater (on leave)	Nancy Goldner
Mary Warner	Shandra Dwyer
Glenn Joseph	Barbara Turlington

Related courses for Spring Term 1975 are:

NS 137/SS 111	Biological and Cultural Bases of Sex Differences
IN 311	Women's Studies

Students who wish to do academic work in feminist studies should consult the Five College course listing of course offerings in the Valley, call the Whole Women's Center at Hampshire, or call the Women's Studies Program at the University of Massachusetts.

GROUP INDEPENDENT STUDY: THE INSPIRED IN MUSIC

Mark Wittow and Chris Young*

"Where words end, music begins."

In the course we hope to achieve two goals for the participants:

- To increase the range and scope of music that one appreciates, and the depth of that appreciation, comprehension, and enjoyment.
- To communicate something of the creative process involved in creating music of any type.

This course will be a means of increasing communication between musicians and their potential audience. That communication should flow both ways. We hope to initiate a fresh sense of confidence in the listener who disbelieves himself to be an integral part of music.

The group will pursue these goals by reading and discussing aesthetic philosophy and music; by listening to and analyzing certain works; and by bringing into the classroom performers and composers to explain what they do, how they do it, and why they do it.

We will discuss the dichotomy of the Western European and Afro-American musical traditions, and the success of certain places in combining those traditions.

The opening meetings of the class will be spent with the music of Brian Wilson and the Beatles, in order to develop analytical and observational skills with familiar music. We will work with swing, pop and contemporary jazz, 20th century classical music, the avant-garde and Hindu music. The artists and composers we will listen to and discuss include Stravinsky, Bartok, Ives, Debussy, Satie, Holverson, Cage, Davis, McLaughlin, and Zappa.

Members of the group will be expected to read at least one or two books selected in consultation with the leaders and do extensive listening outside the class.

The course is intended for the listener and amateur musician and will work with the varying levels of musical knowledge of the class. Work in the course can lead to a Division I H&A exam.

The Study Group will meet twice a week for 14 hour sessions. Enrollment is limited to 20 students, and those interested are encouraged to talk with the student instructors.

*Mark Wittow and Chris Young are Division II students concentrating in music. Randall McEllan is acting as faculty supervisor.



SCHOOL OF LANGUAGE AND COMMUNICATION

Emmon Bach, professor of linguistics, holds a joint appointment with the University of Massachusetts. His B.A., M.A., and Ph.D. are from the University of Chicago. He is the author of *An Introduction to Transformational Grammar*, the co-editor of *Universals in Linguistic Theory*, and has published numerous articles on linguistics over the last ten years.

Allen Hanson, assistant professor of computer science, has a B.S. from Clarkson College of Technology, his M.S. and Ph.D. in electrical engineering are from Cornell University. From 1969-1973, Mr. Hanson has taught in the Computer, Information and Control Sciences Department at the University of Minnesota. He has particular interests in the areas of undergraduate computer science curriculum development and the application of computer technology to nontechnical areas.

John A. Hornik, visiting assistant professor of psychology, received a B.S. from Tufts University and a Ph.D. from the University of Illinois, Champaign-Urbana. For the past four years he has taught at the University of Virginia. His main interests are in social and ecological psychology.

David W. Kerr, assistant professor of mass communications, has a B.A. from Miami University in Ohio and is completing his Ph.D. at Indiana University. His teaching experience includes courses in radio-TV, journalism, and English. Mr. Kerr is coordinator of the School of Language and Communication.

James N. Koplin, associate professor of psychology, received his B.A., M.A., and Ph.D. from the University of Minnesota, and taught at Vanderbilt University before coming to Hampshire. His special interests are in psycholinguistics and cognitive psychology. He has a joint appointment with the School of Social Science. Professor Koplin will be on leave for the academic year 1974-75.

John A. LaTourneau, associate professor of logic, came to Hampshire from York University. He has taught at the University of California at Berkeley (where he received his Ph.D.) and was a mathematics consultant to the Berkeley public schools. His B.A. is from the University of Washington.

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

William E. Marsh, associate professor of mathematics, was chairman of the mathematics department at Tallahassee College in Alabama. His B.A., M.A., and Ph.D. are from Dartmouth, and his special interests include the foundations of mathematics and linguistics.

Stephen O. Mitchell is director of management systems and associate professor of computer science. He has been director of the Computer Center at Lehman College in New York City and of the Freshman Program at Hampshire College. He is also director of the Freshman University and his Ph.D. is from Indiana University.

Richard L. Miller is director of educational technology and assistant professor of communication science. He was formerly 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.

Michael Rodenbury, assistant professor of philosophy, received a B.A. from Cornell University, an M.A. from the University of California at Berkeley, and is working on his Ph.D. at Berkeley. His special interests are in the philosophy of action and philosophy of psychology.

Robert Rardin, assistant professor of linguistics, received a B.A. from Swarthmore College and is a candidate for the Ph.D. at MIT. He has traveled widely in Europe, especially in the Soviet Union and Scandinavia. He speaks six languages and his interests include international affairs and peace work.

Neil Shattuck, assistant professor of mass media and American studies, has a B.A. in sociology from the University of Michigan, an M.Phil. in American Studies from Yale University, and expects to get his Ph.D. from Yale in 1974. His teaching interests include 20th century American mass media, and the intellectual and cultural history of that period. He has taught as a Peace Corps volunteer and has published numerous articles and movie reviews.

Neil Stillings is assistant professor of psychology. He has a B.A. from Amherst College and a Ph.D. in psychology from Stanford. His current research involves the semantics of natural language.

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

Martha Thompson, visiting associate professor of psychology, has a B.A. from Antioch College and a Ph.D. from Radcliffe College. She has taught at Smith College for the past eleven years. Her principal research interests are in psychophysics and scaling, space perception, perceptual development, and human memory.

Yvette Tonnev, assistant professor of cognitive psychology, holds a B.A. and a Ph.D. from Cornell. Her primary interest is in cognitive development. She has done research in the development of cognitive strategies for memory.

Christopher Witherspoon, assistant professor of philosophy, has a B.A. from Amherst College and is currently completing his Ph.D. at the University of California at Berkeley. He was a Stanford graduate fellow and worked as a teaching assistant and fellow at the University of California at Berkeley.

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

David Kibbey, visiting assistant professor of art, took his B.F.A. and M.F.A. at the Rhode Island School of Art and Design. He has taught at the University of Missouri and Winham College.

Joyce Lieblich, 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 *Santavane in America*. He has a joint appointment with the School of Language and Communication.

Robert Martinez, associate professor of Hispanic American literature, has worked for the World University Service in Peru and Venezuela; 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 an M.A. from Harvard.

Elaine Mayer, associate professor of film, has a B.A. in art from Stanford. She did graduate study in painting and photography at the San Francisco Art Institute and taught film and photography at the University of Minnesota. Her photographs have appeared in many exhibitions and publications. She will be on leave from Hampshire College for Spring Term 1975.

Francis McCallan, assistant professor of dance, received a B.S. in dance from the Juilliard School of Music and was a member of the Joan Kerr Dance Company and the Anna Sokolow Dance Company. In addition she has assisted Jose Limon. Her principal teachers have been Jose Limon, Antony Tudor, Louis Horst, and Merce Cunningham. She is a certified teacher of Labanotation and will become a certified Effort/Shape Movement Analyst this year. She has reconstructed Doris Humphrey's *Winter Solstice* using a dancer and from their Labanotation scores. In addition to being a dancer and choreographer, Francis has studied sensory awareness with Charlotte Selver and is currently working on a doctorate in education in the Arts and Humanities at the University of Massachusetts.

B. Randall McCallan, assistant professor of music, received his B.M. and M.M. from the University of Cincinnati and his Ph.D. from the University of Rochester. He has taught music theory and composition at West Chester State College, Pennsylvania, where he was also director of the electronic music studio. An active composer and performer in electronic music, he is an originator of "sound awareness" training and is a recognized authority in the use of music to induce mystical states. His current studies include music in Non-Western cultures with emphasis on the music of India.

James McElwaine, assistant professor of music, has a B.M. from North Texas State University at Denton and an M.M. from Yale University, where he has been assistant conductor of the Yale Band and the Yale Symphony Orchestra. His interests include both performance and composition; he has played in many chamber ensembles, laboratory and jazz bands, and symphonies. He has been a composer and performer in electronic music ensembles, and is setting to music the poetry of Richard Brautigan. Professor McElwaine will be on leave for Spring Term 1975.

Robert Meagher, associate professor of the philosophy of religion, has a B.A. from the University of Rochester and an M.A. from Chicago. His publications include *Perennialism and the Political*, *Thomas Beckwith*, and *Thomas Stone: Bishopric and the Political*. He has taught at the University of Notre Dame and at Indiana University.

Joan Murray, faculty associate in art, is a recent graduate of Hampshire College. She has taught a number of house courses on campus both before and after the completion of her degree work.

William O'Brien, assistant professor of theatre arts, has had considerable experience in acting and directing. He received his B.A. from Fairfield University, his M.A. from the University of Rhode Island, and his M.F.A. from the Goodman Theatre and School of Drama.

Valerie Pilcher, assistant professor of music, is the founder and conductor of the Hampshire College Choir and an M.T. in music from the Harvard Graduate School of Education.

Lawrence P. Pithers, assistant professor of history, has been a political writer and commentator for BBC for whom he wrote and narrated several documentaries. He earned a B.A. at London University and an M.Sc. at the London School of Economics where he is currently studying for his Ph.D. Besides specializing in Hegelian-Marxist philosophy and the history of political ideas, he is an accomplished poet, translator, and filmmaker.

Earl Pope, associate professor of design, holds a B.Arch. degree from North Carolina State College at Raleigh and has been design and construction critic for *Architectural Record* since 1962. Professor Pope will be on leave for Fall Term 1974.

David Roberts, assistant professor of literature and director of the Outdoor Program, has a B.A. from Harvard University and a Ph.D. from the University of Denver. He is the author of *The Mountain of the Moon*, a book about Latin American art and literature. He has also written a book about the history of the mountain of the moon. He will be on leave for Spring Term 1975.

Walter Schreck, associate professor of literature, graduated from Hampshire College in 1968 and received an M.F.A. from the University of Wisconsin at Madison. He has taught at the University of Wisconsin at Madison, where he was a member of the faculty of the School of Drama at Yale University, where he was a playwright in residence. He founded a theatrical group, the summer stock company in London, the *Long Wharf Theatre*, and helped to establish the *Long Wharf Theatre* in New Haven, where he has acted, directed, and has a play produced.

David L. 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.

Francis D. Smith is Dean of the School of Humanities and Arts, and professor of humanities and arts. A Harvard graduate, he has taught in high schools and colleges. He has directed federal community relations programs for Massachusetts, and has published as a sociologist, playwright, and novelist.

Raymond 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 Saint Augustine's College in Raleigh, North Carolina. He has a B.A. from Howard University and a Ph.D. from the University of Massachusetts. Professor Terry will be on leave for Spring Term 1975.



FACULTY

SCHOOL OF HUMANITIES AND ARTS

William Barrett Webb, visiting assistant professor of music, earned his B.Mus. at the University of Michigan, his M.A. at Boston University, and his Ph.D. in Musicology at the University of Illinois. He has taught at Lafayette and Wilson Colleges in Pennsylvania and the University of Illinois.

Michael Benedikt, associate professor of literature, is an accomplished poet, translator, and art critic. Among his published works are poetry collections *Now*, *The Body*, and *Notes*. He is also poetry editor of *The Paris Review*, editor of the forthcoming anthology, *The Poetry of Surrealism and The Prose Poem*. He was an associate editor for *Art News* for a decade and New York correspondent for *Art International*. He holds a B.A. from New York University and an M.A. from Columbia.

John Bostiller, associate professor of human development, joined the Hampshire planning staff in 1967, and has devoted himself particularly to exploring experiential and self-reflexive approaches to personal growth. He has taught at Amherst College, from which he has a B.A., and pursued research at the RAND Corporation in California.

Raymond Kenyon Brady, 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 as well as an M.A. in philosophical theology from Yale University where he is currently a candidate for a Ph.D.

Jess Clowd is presently concerned with Continental and English Renaissance. His special interests include Shakespeare, the history of ideas and the relationship between science and the humanities. He earned his B.A., M.A., and Ph.D. at Columbia University.

Chris Enos, visiting assistant professor of photography, earned a B.A. in sculpture and an M.F.A. in photography at the San Francisco Art Institute. She has had diverse teaching experience at such schools as the San Francisco Academy of Art, the University of California at Berkeley, and most recently at Winham College.

Van S. Holway, Jr., director 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. Professor Holway will be on leave for Fall Term 1974.

Arthur Hopper, professor of design, was formerly chairman of the design department at 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 consultant for the Boston Society of Architects and the New England Federal Center.

John J. Kennedy, assistant professor of literature, is interested in the history of the English language and literature. He received a B.S. from the University of Michigan and an M.A. from the University of Michigan. He is currently a candidate for a Ph.D. at the University of Michigan.

John J. Kennedy, assistant professor of literature, is interested in the history of the English language and literature. He received a B.S. from the University of Michigan and an M.A. from the University of Michigan. He is currently a candidate for a Ph.D. at the University of Michigan.

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John J. Kennedy, assistant professor of literature, is interested in the history of the English language and literature. He received a B.S. from the University of Michigan and an M.A. from the University of Michigan. He is currently a candidate for a Ph.D. at the University of Michigan.

SCHOOL OF NATURAL SCIENCE

Harbert J. Bernstein, assistant professor of physics, has been a visiting scientist at Brookhaven National Laboratory, a member of the Institute for Advanced Studies at Princeton, and a visiting professor at the Institute for Theoretical Physics in Louvain, Belgium. His B.S. is from Columbia University, and his Ph.D. from the University of California at San Diego. Professor Bernstein spent the past summer at Technion in Haifa, Israel, and the fall at the Stanford Linear Accelerator. He is interested in the science of everything, biophysics, quantum mechanics, how things work, general relativity and public policy planning and advising.

Norio S. Bruno, assistant professor of biology, holds a B.A. from Syracuse University and a Ph.D. from Harvard. Her work on crustacea and vertebrate sensory neurophysiology has been supported by the National Institutes of Health and the Gross Foundation. She is the author of several teacher's guides for elementary science studies. Her academic interests include vision and physiology, "open education," teacher training and the Hampshire Science Journal "Circetus."

Raymond P. Copping, associate professor of biology, has worked at the Woods Hole Oceanographic Institution, the Smithsonian Astrophysical Observatory in Cambridge, the United States Fish and Wildlife Service, and the Beebe Tropical Research Station in the West Indies. He holds a B.A. from Boston University and a Ph.D. from the University of Massachusetts. Ray has published many papers on his varied interests, which include philosophy, forest management, animal behavior, New England birds, monkeys in the Caribbean, African ecology, biosocial human adaptation (anthropology/ecology) and Nocturnal Theory (book in progress). He and Lorna Copping also have a book in progress on sled dogs.

Jane Egan, visiting assistant professor of animal behavior, received her B.A. in Archaeology and Anthropology and her Ph.D. in Animal Behavior from Cambridge University. Her research interests are in physical anthropology, studying the effects of environmental factors on the development of behavior in humans and other animals. She is a member of *Survival International*, which is involved in preventing the exploitation and/or extinction of indigenous tribes (hunters and gatherers) and other exploited groups.

Susan Goldhor, Dean of the School of Natural Science and associate professor of biology, obtained her A.B. from Barnard and her M.S. and Ph.D. degrees from Yale University. She has held positions at Yale's biology department, Haverford University in Ankers, Turkey, and Stanford University where she worked in cancer research. Her varied interests include science fiction, embryology, evolutionary genetics and adaptations, cancer, feminism and literature of natural history.

Courtney P. Gordon, assistant professor of astronomy, holds a B.A. from Vassar College and an M.A. and Ph.D. from the University of Michigan where she was a teaching fellow. Her work has included studies at the Royal Greenwich Observatory in England and the Harvard College Observatory, as well as observing time at the Kitt Peak National Observatory. From 1967-1970 she was a research associate and then assistant scientist at the National Radio Astronomy Observatory in Charlottesville, Virginia. In addition to astronomy, Courtney is interested in relativity, cosmology, extraterrestrial communication, codes and ciphers and animal communication (dolphins and chimps). She also takes an active role in the Hampshire and Berkshire environmental movement (in fields outside astronomy, such as biology, chemistry and the history of science. (Professor Gordon will be on sabbatical spring semester at Aricibo in Puerto Rico).

Karlton J. Gordon, assistant professor of astronomy, is interested in time (including the philosophy of time and space), relativity, extraterrestrial and animal communication, and cosmology. His research interests include galactic structure, interstellar matter and pulsars. He is also interested in exam committees in a variety of fields such as geology, statistics, meteorology, and the mythic and religious relatives of astronomy such as astrology. (Professor Gordon will be on sabbatical spring semester at Aricibo in Puerto Rico).

George Greenstein, assistant professor of astronomy at Amherst College, was a research associate at Yerkes University and at Princeton. He received his B.S. from Stanford and his Ph.D. from Yale University in astrophysics.

Michael Gross, assistant professor in the history of science, received his B.S. in chemistry from Brooklyn College and his Ph.D. on 19th century physiology from Princeton University. His interests include the history of science, especially modern Darwinian biology, and the history of psychology and the history of modern European social and intellectual history.

John H. 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 National Science Foundation. He holds a B.A. from Swarthmore College and a Ph.D. in biochemistry from Harvard. In addition to his involvement in biochemistry and in the Human Biology program, he is interested in amateur electronics, ecology and field biology.

David L. Gay, associate professor of chemistry, holds a B.Sc. from the University of London in chemistry and a Ph.D. in physical inorganic chemistry from the University of the West Indies. He formerly taught at Xavier College in Sydney, Nova Scotia. His interests include Caribbean affairs, physical chemistry, kinetics, reactions in electromagnetism, fields, bio-inorganic chemistry, chemistry for the consumer and in particular, the mechanisms of chemical reactions.

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

Donald Goldberg, faculty associate in mathematics, received his B.A. from New College and his M.A. from Dartmouth. He has taught at Hampshire for three summers in the Summer Studies in Mathematics Program, and will be co-director of this year's summer program. His interests lie in the areas of modern algebra and number theory.

Stanley Goldberg, associate professor of history of science, taught at Antioch College and was a senior lecturer at the University of Zambia. He has a National Science Foundation grant for a study of early 20th century reactions to Einstein's relativity theory. His B.A. is from Antioch College and his Ph.D. is from Harvard. His teaching interests include physics, the Copernican revolution and photographs, and in addition he is in search of exams of Columbus and the flat/round world. (Professor Goldberg will be on sabbatical spring semester at the Smithsonian).

Everett M. Hafner, professor of physics, was an associate physicist with the Brookhaven National Laboratory, a National Science Foundation Fellow at Cambridge University and a faculty member at the University of Rochester from which he received his Ph.D. His B.S. is from Union College and his interests include the physics of electronic music, nuclear physics, cosmic rays, environmental science, holography and APL. He served as the first Dean of the School of Natural Science at Hampshire. (Professor Hafner will be on leave during spring semester, 1975).

Charles Hamann, consultant in animal behavior, received his B.S. in animal science from the University of Rhode Island and did graduate work in physiology and pathology of reproduction at U.K.I. and University of Massachusetts. He was a D.B. project manager in industrial bio-electronics and behavioral systems. Special interests are the study of behavior patterns in animals and their application to the development of useful systems incorporating trained animals, training of a variety of animals for motion picture performance and the training of horses for trail and "working" type competition.

Edward B. Harrison, professor of astronomy at the University of Massachusetts, is a specialist in cosmology and galactic formation. He received his formal training at the Institute of Physics. He worked at the Atomic Energy Research Establishment in England and the Rochester High Energy Laboratories as Principal Scientific Officer. He was also a senior postdoctoral resident research associate at the Goddard Space Flight Center in Greenbelt, Maryland.

Kenneth B. Hoffman, assistant dean of the college and associate professor of mathematics, has a B.A. from the College of Wooster and an M.A. from Harvard, where he also served as a teaching fellow. He was chairman of the mathematics department at Talladega College in Alabama during 1967-70.

G. Richard Huguinin, professor of astronomy at University of Massachusetts, is currently director of the Five College Radio Astronomy Observatory. He was a Senior Research Associate and Assistant Professor at Harvard before coming to the University. He received his B.S. from M.I.T. and his Ph.D. from Harvard.



Hin Luoy, faculty associate in sociology of science, received her B.S. in mathematics and French from Tufts University and her M.A. from the University of Pennsylvania in the history and sociology of science. She is currently working on her Ph.D. on models of science in culture at the University of Pennsylvania. Her interests include science in the 20th century as it relates to culture and technology, social change and policy in general, the relationship of mythology to policy in science, science and literature, psychology, philosophy and poetry.

David C. Kelly, assistant professor of mathematics, has taught at New College in Florida, at Oberlin, at Talladega College and at Boston University. He holds a B.A. from Princeton, an M.S. from M.I.T., and his Ph.D. is in progress at Dartmouth. He directed an NSF summer program in math for the past three years and this year will co-direct the program with Don Goldberg.

Allan S. Kras, associate professor of physics and science policy assessment, was educated at Cornell and Stanford, where he received his Ph.D. in theoretical physics. He has been on leave for the past year at the Open University in England. Previously he taught at Princeton, U.C. at Santa Barbara and the University of Iowa, and he is interested in science and public policy.

E. E. Krickhaus, consultant in neurophysiology, teaches comparative neurophysiology at Hampshire College. He received his B.A. from Williams College and his Ph.D. from the University of Illinois. He has taught at Yale University, the University of California at Davis and at University of Massachusetts. He is interested in the nature of reality.

Nancy M. Lowry, associate professor of chemistry, has a B.A. from Smith College and a Ph.D. from M.I.T. She has taught at Smith College and the Cooley Dickinson Hospital School of Nursing, and has coordinated the chemical analysis lab as part of the Mill River Project in Northampton. She has also been a research associate at M.I.T., Amherst and Smith. Her interests include stereochemistry and organic molecules, environmental chemistry and science for non-students.

Lynn Miller, professor of biology, has taught at the American University of Beirut and at Adelphi University. He has a B.S. from San Francisco State College and a Ph.D. from Stanford. He has held post-doctoral fellowships in microbiology at Stanford's Hopkins Marine Station and in genetics at the University of Washington. His principal interests are applied microbiology (composting, sewage treatment, fermentation) and social aspects of genetics (agriculture, genetic engineering, genetic counseling) as well as stress and disease. He is also involved in human tests on sensitivity. He is especially interested in working with students on independent study, tutorials and small group projects. His research concerns ergosterol metabolism in yeasts and PTC testing in humans. (Professor Miller will be on sabbatical during spring semester).

Brian T. O'Leary, assistant professor of astronomy, has a B.A. from Williams College and a Ph.D. from the University of California at Berkeley. A former NASA scientist-astronaut, he continues to be involved in U.S. space efforts and has written a number of articles on space exploration. He has taught at Cornell, San Francisco State College, the California Institute of Technology and the University of California at Berkeley. His current research is in astronomy (planetary science) on the Mariner 10 Venus-Hercury television science team at the Jet Propulsion Laboratory. His interests include science and public policy, space photography, assessments of technology and our crisis in energy.

Sandra Dwyelle, assistant professor of microbiology, is currently a post-doctoral research associate in the Department of Biochemistry at University of Massachusetts. She received her B.S. from Harvard University, an M.S. from the University of Chicago and a 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 and research on the microbial contribution to energy production.

John B. Reid, Jr., assistant professor of geology, has pursued his lunar surface and earth's interior research interests at the Smithsonian Astrophysical Observatory in Cambridge, the Geochronology Laboratory at M.I.T. and Rensselaer Polytechnic Institute. Recipient of a B.A. from Williams College and a Ph.D. from the Massachusetts Institute of Technology, 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 volcanoes as a source of geothermal power and continue his work at M.I.T. and the Los Alamos Scientific Laboratory, Los Alamos, N.M. and Hampshire.

Linda L. Slinkey, adjunct assistant professor in chemistry, has a B.S. from Saint Joseph's College and a Ph.D. in biochemistry from the University of Michigan. She taught at Saint Joseph's College and did post-doctoral research at Argonne National Labs. at the University of Wisconsin. Her research is in the control of development and atherosclerosis. She holds a faculty appointment in the Department of Biochemistry at University of Massachusetts.

Michael R. Sutherland, assistant professor of statistics, holds an intercollegiate appointment in the School of Natural Science and the School of 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 B.A. is from Antioch College and his Ph.D. from Harvard University. His interests include mathematics, statistics, philosophy, carpentry, machinery, automobiles and people.

David Van Blerkom, assistant professor of astronomy at University of Massachusetts, received his B.S. from City College of New York and his Ph.D. from University of Colorado. He was a research associate at the Joint Institute for Laboratory Astrophysics before coming to the University. His specialty is astrophysics.

Louis V. Wilcox, Jr., associate professor of biology, holds an A.B. degree from Colgate University and a Ph.D. from Cornell in plant pathology. He has held faculty positions at Iyomung College and at Earlham College and was director of the Environmental Studies Center in biology at the Fabrikator Environmental Studies Center in Goodland, Florida. His special interests are tropical ecology, particularly the ecology of mangrove swamps, the structure and function of natural and manmade communities, problems of food supply and environmental studies. He was responsible for establishing and directing the program in Bahamian ecology at Earlham College.

Margaret Wilcox, visiting assistant professor in botany, has her B.A. from Earlham College, M.S. from University of Wisconsin and her Ph.D. in palaeobotany from Cornell University. Her other academic interests include geology, cytology and evolution as well as teaching people more about other living things so that they may learn on their own, for the rest of their lives.

Albert Woodhull, assistant professor in biology, received his B.S. from M.I.T. and his Ph.D. from the University of Washington. He has taught in the Peace Corps in Nigeria and has lectured at the University of Washington. His research interests are centered on the physiological bases of behavior (C.J. and J.M. participate in his research on visual thresholds). He is also interested in embryology, electronics for instrumentation and alternative energy sources.

Ann Woodhull, assistant professor of biology, is especially interested in physiology and neurobiology, biometry and molecular biology, biological toxins, the Crictus Journal, and she is coordinator for the CASAL program. She holds a Ph.D. from the University of Washington. Her teaching experience includes high school math in Nigeria as a Peace Corps volunteer.

Michael Zimmerman, faculty associate in the environmental quality program, did summer work at the Oregon Institute of Marine Biology and at Hampshire College in ecology. He received his B.A. from the University of Chicago in geography, and his special interests are ecology, botany, biogeography and Alaska.

*Five College Astronomy Faculty.

Student Teachers:

Channing Harris, is a native of western Massachusetts and graduated from Mt. Vernon School. He worked as a skilled woodworker in pattern making at Rodney Hunt Company. Interests include forestry, geology, natural history, ecology, education, and fine arts.

Corey Levenson, is a Division III, third-year student concentrating in neurobiology. He learned neurophysiological techniques in a course taught by Eric Newman last January and through on-going work with Ann Woodhull in her nerve membrane biophysics course. He is particularly interested in the biochemical particulars of neuropharmacology, the dynamics of nerve membrane-drug interactions.

Neil Segal, is a Division III student studying developmental biology.

Lee Smolin, has studied at the U. of Cincinnati and at Hampshire and has done research in theoretical physics at Dartmouth. Last year he designed and taught a modern physics course at City Wide High School in Cincinnati. His Division III work was in physics and philosophy and his Division III work in theoretical physics is entitled "Quantum Electrodynamics and General Relativity."

Mark Stephenson, was an intern with the Mass. Audubon Society, setting up a program in Environmental Awareness for inner-city youth. His Division III work was in Biological Studies and Environmental Studies and his Division III work is in Environmental Awareness and Cultural Change. He was a teaching assistant with John Reid in Natural History of the American Southwest, and his other interests include American Studies and Eastern Philosophy.

Ellen Tanner, is a Division III student concentrating in biology, specifically pertaining to metamorphosis. Presently she is working in a biochemistry laboratory at the University of Massachusetts studying metamorphosis. Her interests lie in social and political concerns of Health and Science and Dance.

Betsy Walker, is a Division III student concentrating in neurobiology. She spent the spring and summer of 1974 at the Chemotax Lab at Woods Hole Oceanographic Institution, working on the neurophysiology of interneuronal action in catfish. Her Division III project is an investigation of the functional and anatomical differences between taste and smell in aquatic invertebrates.

SCHOOL OF SOCIAL SCIENCE

Richard M. Albert, assistant 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 Hobart College and his Ph. D. from Harvard.

Carolyn Bengelsdorf, 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 MIT. 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.

Robert C. Birney, Vice President of Hampshire College and professor of psychology, was a member of the Four College Committee which helped plan Hampshire College. He served as the first Dean of the School of Social Science and before that was chairman of the psychology department at Amherst College. Holder of his B.A. from Wesleyan University, he earned his Ph.D. from the University of Michigan.

B. Bruce Carroll, associate professor of political science, has taught at Middlebury and Smith Colleges, where he also directed Washington summer internship programs. His B.A. is from the University of Vermont and his Ph.D. from the University of Chicago.

Michael Cole, adjunct associate professor of psychology, is also professor of psychology and experimental anthropology at Rockefeller University. He holds a B.A. from the University of California at Los Angeles and a Ph.D. from Indiana University.

Louise Farham, associate 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.

Monica T. Faulkner, assistant professor of sociology, is a specialist in the sociology of higher education. Other areas of her interest, in which she taught at the University of Rochester, include sex roles and family interaction, and the sociology of science and the arts. Her B.A. and Ph.D. are from the University of California at Los Angeles.

E. Oliver Fowlkes, assistant professor of law, received a B.A. from Southern 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.

Penina M. Glazer, associate professor of history, has a B.A. from Douglass College and a Ph.D. from Rutgers University where she held the Louis Bavier 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. Gluck, Dean of the School of Social Science and 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 ethnomedicine and social organization in the New Guinea Highlands.

Edward Greer, associate professor of political science, received a B.A. from Columbia College and a J.D. from Yale Law School. He has been engaged in urban politics in Gary and directed the urban affairs program at Wheaton College. In addition to articles on urban politics, he is the author of *Big Steel, Little Steel* and editor of a reader, *Black Liberation Politics*.

William Grohmann, assistant professor of education and Master of House III, has a B.A. from Cornell and an M.A. from Columbia and is preparing a doctoral dissertation for 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.

Gayle D. Hollander, associate professor of political science, holds a B.A. from Syracuse University, an M.A. from Harvard, and a Ph.D. from MIT. She has recently published a book entitled *Soviet Political Indoctrination: Developments in Mass Media and Propaganda Since Stalin*, and is currently doing research on political communications and dissent in the Soviet Union, and women in the Soviet and East European political systems. She will be on leave for Academic Year 1974-75.

Thomas R. Holman, associate professor of psychology and Master of House IV, has been extensively involved in counseling. At Augsburg College, Minnesota, he served as Director of Psychological Services and later as Vice President for Student Affairs and Director of the Center for Student Development. Recipient of a B.S. from the University of Wisconsin at Madison and a Ph.D. from the University of Minnesota at Minneapolis, he taught at Augsburg and Earlham Colleges before joining Hampshire College.

John A. Hornik holds a joint appointment with the School of Language and Communication.

Gloria L. Joseph, associate 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-chairman 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 Africana Studies and Research Center.



Mary N. Kaufman, visiting professor of law, is a graduate of Brooklyn College and holds a law degree from St. John's University. In the course of an extensive professional career as a labor lawyer and civil liberties advocate, she participated in the Rosenberg trials, served as a defense attorney during the McCarthy investigations, and was a member of the International Commission of Enquiry into U.S. War Crimes in Indo-China.

James Koplin holds a joint appointment with the School of Language and Communication.

Joan B. Landes, assistant professor of political science, holds a B.A. from Cornell University and an M.A. from New York University, where she is presently completing a doctorate. She was formerly an assistant professor of political science at Bucknell University. Her research interests are on the theoretical foundations of the women's liberation movement. She is also interested in political theory, American politics and political development.

Barbara Harrison Linden, assistant 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.

Lester Mazor, Henry R. Luce Professor of Law, has a B.A. and M.B. from Stanford, served as law clerk to the Honorable Warren B. 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. Professor Mazor will be on leave Spring Term 1975.

Philip F. McKean, assistant professor of anthropology, received a B.D. from Yale Divinity School and an M.A. from Brown University. He has served as a university chaplain in Djakarta, Indonesia, and as a clergyman in Rhode Island. His most recent research and publications examine cultural change and modernization in Bali.

Laurie Nisonoff, 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.

Anson Rahinbach, assistant professor of history, holds a B.A. from Hofstra University and an M.A. from the University of Wisconsin, where he has taught European history and from which he anticipated a Ph.D. in 1973. He is interested in modern and social and intellectual history with special emphasis on Central Europe.

Miriam Slater, assistant professor of history and Master of Dakin 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. She will be on leave from Hampshire College for the Academic Year 1974-75.

Harris Stone, visiting assistant professor of urban studies, holds a B.A. from Brown University and an M. Arch. from Harvard. He is the author of *Workbook of an Unsuccessful Architect* and is an advocate architect-planner in New Haven, Connecticut.

Michael Suteland holds a joint appointment with the School of Natural Science.

Martha Teyssie holds a joint appointment with the School of Language and Communication.

Barbara Turlington, dean of the college and assistant professor of political science, has taught at Connecticut College and Mount Holyoke College. She received a B.A. from the American University of Beirut in Lebanon, and did doctoral work at Columbia.

Robert von der Lippe, associate dean of the college and 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.

Barbara Yngvesson, assistant professor of anthropology, received her B.A. at Barnard 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. Professor Yngvesson will be on leave Spring Term 1975.

Mary Warner, assistant professor of folklore and Master of Prescott House, has a B.A. from the University of Delaware and an M.A. from the University of Pennsylvania where she is now a doctoral candidate. Her interests center on Afro-American folk history and expressive culture.

Stanley Warner, associate professor of economics and Master of Merrill 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, associate professor of economics, 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 California at Santa Cruz. His special interest is the historical study of economic development and underdevelopment.

EDUCATION STUDIES

Ann Gengarelly, faculty associate in Education Studies, has a B.A. from Earlham College and has done some graduate level work at Queens College. She has taught elementary school for seven years, in Connecticut and Massachusetts, and has served as a resource person for the University of Massachusetts' "Integrated Day Program" and for the Gateway Regional School District in Massachusetts.

John Kortcamp, faculty associate in Education Studies, has a B.A. from Gorham State College, M.Ed. from the University of Maine, and has concluded his first year's study for a Doctorate of Education from the University of Massachusetts. His area of interest and studies as a graduate student has been alternate structure in higher education and teacher preparation.

Seymour Pollock, visiting assistant professor of Spanish and Bilingual Education, has taught English as a foreign language in Brazil, Somalia, Madagascar, Tunisia, and Spain. His A.B. and A.M. were awarded by Middlebury College and his Ph.D. is in progress at the University of Massachusetts.

FOREIGN STUDIES

James Watkins, director of foreign studies and professor of languages, served at Middlebury College as director of the Language Center and associate professor of French. His M.A. was also Middlebury's director of studies in Paris. His M.A. was also Middlebury's director of French in France and is from the Middlebury Graduate School of French in France and his other graduate degrees are from the University of Paris, Sorbonne.

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