

# Hampshire College

CENTRAL RECORDS  
HAMPSHIRE COLLEGE  
AMHERST, MA 01002

*Melissa A. Betts*

**Course  
Descriptions**

**Fall Term 1973  
Amherst,  
Massachusetts**

# **Hampshire College**

**Preliminary  
Course  
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HAMPSHIRE COLLEGE

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NOTE: All course descriptions are "preliminary" pending approval  
by the Academic Council on April 17, 1973.  
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## REGISTRATION DATES AND CALENDAR

Registration Period for Fall Term	Monday, April 23 - Friday, May 11
Discussions with Advisers	Monday, April 23 - Friday, April 27
Selection Period*	Monday, April 30 - Friday, May 4
Registration	Monday, May 7 - Friday, May 11
New Student Advising and Registration	Wednesday, September 5 - Thursday, September 6
Fall Colloquy	Thursday, September 6 - Wednesday, September 12
Classes Begin	Thursday, September 13
Drop/Add Period	Thursday, September 13 - Thursday, September 27
Last Day to Enroll in Five College Interchange Courses	Friday, September 21
Fall Recess (Thanksgiving)	Saturday, November 17 - Sunday, November 25
Pre-registration for Spring Term	Monday, November 26 - Friday, December 14
Last Day of Classes	Friday, December 21

\* Five College registration will also be done at that time.

## HAMPSHIRE COLLEGE ACADEMIC PROGRAM

## DIVISIONS

Students at Hampshire College progress through three sequential Divisions, Basic Studies, School Studies, 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 particularized topics of study in seminars stressing the notion of inquiry. Students in the first division learn how best to inquire into subject matters, how to understand their own educational needs and abilities, and how to develop the arts of self-instruction as they apply to their own style of learning.

Division II: In the Division of School Studies 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.

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 and independent study, project, or original work. In addition, students participate in advanced integrative work in which they encounter a broad and complex topic requiring the application of several disciplines.

## SCHOOL OF HUMANITIES AND ARTS

DIVISION I

THE WORLD OF FEODOR DOSTOEVSKY HA 103	J. Hubbs
THE LITERATURE OF THE CARIBBEAN HA 107	Marquez
DESIGN WORKSHOP HA 119	Mansfield
LITERATURE AND THE BLACK AESTHETIC HA 129	Terry
COLLEGE WRITING: THE ELEMENTS OF STYLE HA 134	F. Smith
ATHENS, JERUSALEM, ROME: ALTERNATIVES TO MODERN SELF-ASSERTION HA 142	Meagher
THE MAKING AND UNDERSTANDING OF HUMAN ENVIRONMENT HA 145	Juster, Pope
READING MODERN POETRY HA 149	C. Hubbs
STILL PHOTOGRAPHY WORKSHOP HA 150	Liebling, Mayes
DANCE LAB I HA 156	F. McClellan
AUGUSTINE AND CAMUS: TWO MODELS OF FAITHFULNESS HA 173	Meagher

DIVISIONS I and II

HAMPSHIRE GRAPHIC DESIGN HA 109 (HA 209)	Mansfield
PUPPET WORKSHOP HA 139 (HA 239)	Terry

COMPOSERS' SEMINAR HA 151 (HA 251)	McElwaine
SIGHT SINGING AND MUSICAL DICTATION HA 154 (HA 254)	McElwaine
FILM AND HISTORY HA 161 (HA 261)	J. Hubbs, Ford
HOW BACH DID IT: TECHNICAL ASPECTS OF MUSIC HA 185 (HA 285)	R. McClellan
MUSIC AT HAMPSHIRE HA 186 (HA 286)	McElwaine

#### DIVISION II

THE AMERICAN LITERARY LANDSCAPE HA 201	D. Smith
CHANGING STYLES IN WESTERN MUSIC: A HISTORY HA 202	R. McClellan
CLOWNS HA 204	C. Hubbs
GREEK LANGUAGE AND LITERATURE HA 218	Meagher
AMERICAN FICTION 1875-1950: INNOCENCE AND EXPERIENCE HA 219	Lyon
STUDIO EXPERIENCE IN DANCE AND MOVEMENT HA 221	F. McClellan
THE CAMERA AS WITNESS HA 222	Mayes
PROBLEMS IN ENVIRONMENTAL DESIGN HA 250	Juster, Pope
THE TROUBADOURS: NERUDA, VALLEJO, GUILLEN HA 260	Marquez
STUDIO ART WORKSHOP HA 280	Mansfield

DIVISION III

RESEARCH AND CRITICISM IN THE VISUAL ARTS  
HA 301

Liebling

LAW AND LITERATURE  
HA 303 (SS 303)

D. Smith, Mazor



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SCHOOL OF HUMANITIES AND ARTS

CURRICULUM STATEMENT: FALL 1973

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 you are ready to go on to work in more complex problems, so it will be much more like an entrance exam to Division II than any exam you've had previously.

We have kept the course descriptions as simple and honest as possible. Where it says "seminar" it means regular discussion group meetings in a class no larger than twenty students. Where it says "workshop" the size of the group should be the same, but

the style of work will involve more moving away from the discussion table to some hands-on experience in the studio or out with field problems.

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

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

NOTE: New appointments to the Humanities and Arts faculty will enable the School to offer additional courses in the following fields during the Fall Term:

- Art
- History
- Literature
- Philosophy
- Theatre
- Writing

HA 103

## THE WORLD OF FEODOR DOSTOEVSKY

Joanna Hubbs

"Gentlemen, I am tormented by questions; answer them for me."  
 --Notes from Underground.

The purpose of this seminar will be to determine what those questions are, how Dostoevsky formulated them, and why they tormented him so. Since I am a cultural historian rather than a literary critic, I will tend to focus on ideas--the philosophical and psychological aspects of the works and how they relate to the culture into which Dostoevsky was born--rather than questions of structure or style, which will be considered only in so far as they relate to the ideas themselves. I will begin with a series of lectures intended to introduce the author and to "place" him into the context of Russian mythic, cultural, psychological and historic currents. We will then read and discuss the novels, Poor Folk, The Double, The Dream of a Ridiculous Man, White Nights, Crime and Punishment, The Possessed and Brothers Karamazov. Discussions will be supplemented by occasional lectures given by student participants on chosen topics, both historical and literary: for example, discussions of some aspects of Dostoevsky's work as it relates to other Russian or European writers of the period; or a presentation on the history and nature of Russian Orthodoxy, or on the life of the peasantry.

This course has a heavy reading load to which is added the burden of three short papers and/or a short lecture as described above. Those who feel some hesitation in committing themselves to so much reading (the longer novels, Crime and Punishment, The Possessed, and Brothers Karamazov average 600 pages) are encouraged to stay clear!

The class will meet three times a week: twice with me and once with a student discussion leader. Registration for the course will be done through interviews with the instructor. Enrollment limited to 16 students.

HA 107

## THE LITERATURE OF THE CARIBBEAN

Robert Marquez

This course will consist of selected readings in the literature of the Caribbean. Our primary concern will be with searching out the more common themes and preoccupations manifest in the writing of the islands and, more particularly, with the specific treatment given to these themes by individual prose writers and poets. We will be paying particular attention to History, Self, Society, and Social Change as envisioned by these writers. The question of approach will, in turn, be related to the question of technique and style. The emphasis will be on the Spanish speaking Caribbean, especially the work of Edmundo Desnoes, Alejo Carpentier, Enrique LaGuerra, and Rene Marques, but we will also be examining the work of writers from the islands of Martinique, Haiti, Trinidad, St. Lucia, and Barbados in an effort to identify existing--or non-existent--patterns and distinguishing characteristics among the writers of three major language groups in the Caribbean.

The course will meet twice a week for 1½ hours. There is no foreign language required for the course.

Enrollment: 20-24

HA 119

## DESIGN WORKSHOP

Robert Mansfield

This workshop is designed to introduce the student to the process of visual thinking. As a studio course, Design Workshop is directed toward giving the student exposure to a wide variety of design ideas, principles, and applications. Both two- and three-dimensional design concepts will be investigated as they apply to the student's work in the course.

Areas of concern will include light, color, materials, methods, relief painting, sculpture, functional design, and many other possibilities.

Classes will meet twice weekly for 2½-hour sessions. These sessions will include slide lectures, films, demonstrations, critique sessions, and individual work on projects. Students enrolled in Design Workshop will keep a portfolio of their work which will become an evaluation of their work in the course as defined by them.

It will be necessary for each student to have a camera - an Instamatic will do fine.

Class enrollment is limited to 15 students.

HA 129

## LITERATURE AND THE BLACK AESTHETIC

Eugene Terry

This course, which takes its title from that of an essay by Addison Gayle, will examine critical essays which express a need for and attempt to define a Black aesthetic. We shall apply the explicit and implicit theories found in these critical statements to literary works - prose fiction this term - written by Black authors. We shall attempt to better understand what informs the avowed literature of the Black Aesthetic and how these works differ from those by earlier Black writers.

The main critical text is Gayle's anthology, The Black Aesthetic. It will be supplemented by earlier as well as more current essays and a sampling of novels and stories.

Enrollment is open. The class will meet twice weekly in hour and a half sessions.

HA 134

## COLLEGE WRITING: THE ELEMENTS OF STYLE

Francis Smith

A study of the elements of expository writing, with emphasis on the kinds of writing necessary in college work.

Attention will be given to the art of civilized exposition, construed to mean explanations, analyses, definitions, arguments, term papers, criticisms of books, personal speculation, and opinion.

The class will use Strunk and White: The Elements of Style.

Enrollment is limited to 20 students.

BA 142

ATHENS, JERUSALEM, ROME:  
ALTERNATIVES TO MODERN SELF-ASSERTION

Robert Meagher

Life's but a walking shadow, a poor player  
That struts and frets his hour upon the stage,  
And then is heard no more; it is a tale  
Told by an idiot, full of sound and fury,  
Signifying nothing.

(Macbeth, V, iv)

Men tell stories with their lives, stories whose concern with beginnings and endings, plot, and focus stand to deny that those stories are senseless, told by idiots. Every human life involves a passage from the many to the one, from the many lives one might live, the many persons one might become, to the one life one lives, the one person one is becoming. The question here is whether, in this process of human coming-to-be, always a coming-to-be-someone-in-particular, one can know what one is doing. If all of the human possibilities which one confronts represent only opinions regarding the human, what would it mean to claim that human becoming is a passage from opinion to knowledge?

This course will reflect upon several deeply-rooted and ranging claims to wisdom in human becoming. The peculiarly modern claim seems to be that human becoming is the creation of what is unique. Thus one can know only what one himself makes, which is to say that one knows what one is doing when one's life flows from one's own decisions, radically understood. One's posture toward one's life is that of a craftsman toward material to be crafted. Contrastingly, the claims of our common past, the claims of reason, faith, and tradition, suggest that human becoming is the discovery of what is common. We will reflect upon each of these claims in turn. Most generally, then, the question preoccupying this course will be whether human coming-to-be is a matter of creation or discovery. Some of those whose writings we will surely look at are: Augustine, Hannah Arendt, D. S. Carne-Ross, Martin Heidegger, Hans Jonas, Søren Kierkegaard, Joseph Pieper, and Leo Strauss.

The course will meet twice weekly in two-hour sessions. Enrollment is open.

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--teacup to megalopolis.
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 odd day sessions for field trips, special services, and problems (to be mutually determined). Enrollment is limited to 24 (12 per section).

## HA 149

## READING MODERN POETRY

Clay Hubbs

Our broad concern will be to examine the relationship between the modern imaginative mind and the external world as it is expressed in the language of poetry. More importantly, we will try to get the fullest possible readings of individual poems.

We will begin our study with the French Symbolist poets of the last half of the nineteenth century and end with some twentieth century Irish and British poets who carry on, more or less, in the Symbolist tradition. (The underlying assumption will be that Symbolism is in many ways an outgrowth of Romanticism and that the mainstream of modern Western poetry carries on from Romanticism and Symbolism.) These will include: Baudelaire, Mallarmé, Rilke (in side-by-side translations), Yeats, Eliot, and Pound.

Lecture-discussions and supplementary readings will deal with the language of modern poetry and its historical background--including the biographies of the poets. In workshops we will read and discuss the poem itself and how it works on us, concerning ourselves with the experience as well as with critical knowing. Students will write a number of short papers on the poems.

We will meet twice a week for one-hour lecture-discussions and once a week for a two-hour workshop. Enrollment is limited to 16 Division One students.

## HA 150

## STILL PHOTOGRAPHY WORKSHOP

Jerome Liebling and Elaine Mayes

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, discussions 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 is limited to 30 students (two sections of 15 students each).



HA 156

## DANCE LAB I

Francia McClellan

This will be a class for people with little or no previous experience.

Dance is: Imagination acting in and through time and space.  
Expressing one's emotion through rhythmic movement.  
Mind/body working harmoniously in space and in time.  
Taking one's place in living space.  
Motion--of the instant and part of the continuum of flowing energy.

The class will meet for 1½ hours three times a week. Class work will involve experiences in technique, improvisation, individual and group exploration; and through films, discussions, concerts, and guest artists, I hope we will have an opportunity to discover living philosophies of dance and movement.

Enrollment is limited to 20 students.

HA 173

AUGUSTINE AND CAMUS:  
TWO MODELS OF FAITHFULNESS

Robert Moagher

Augustine and Camus share a common landscape--the shores of North Africa at a moment when it seems that the threads of human civilization are unravelling. Stripped of cultural fabric and mask, man stands naked in his fate and becomes a question to himself. Camus' Caligula puts it with stark and telling simplicity: "Men die and they are not happy." This insight, a truism which few men, says Camus, follow to its core, ignites and consumes the writings of Augustine and Camus, which pursue the question of human blessedness. Both men deny the obvious, track the terrible, and celebrate the beautiful.

As we read, with demanding reach and care, in the writings of both men, we will see their steps cross and pause astride and, on occasion, confront each other uncomprehendingly. Reflections on time and life-time and life-story lead to reflections on faithfulness, violation, and judgment. Personal confession, autobiography, serves as a hardly Cartesian *cogito* from which the historical visions of Augustine and Camus spread out into the past and into the future and touch. Philosophy, theology, autobiography, and history converge when these two men converse beneath the blazing North African sun to do "man's work" which is, says Camus, "nothing but this slow trek to rediscover, through the detours of art, those two or three great and simple images in whose presence his heart first opened."

The class will meet twice weekly for two-hour sessions with occasional evening gatherings to read dramatically several of Camus' plays. Enrollment is limited to 16 students.

## HA 109 (HA 209) HAMPSHIRE GRAPHIC DESIGN

Robert Mansfield

This course will deal with the problems of the commercial artist on two levels. On the first and most immediate level, we will concern ourselves with running a Graphic Design Service. We will print and design posters for clients in the valley, and in so doing we will deal with the problems of financial organization, production schedules, and most importantly, successful graphic design. The students will design each poster and then print it.

We will explore the possibilities and flexibility of our press, using methods such as letterpress, paper printing, photographic plates, woodcuts, and silkscreen. On a more abstract level, we will look at and discuss the work of well known graphic designers and commercial artists. We will read and discuss material concerning the subject of graphic design today.

Through this course we hope to achieve an understanding of successful graphic design and the situation of the graphic designer today.

The class will meet once a week for an hour, but 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 15 students.

## HA 139 (HA 239)

## PUPPET WORKSHOP

Eugene Terry

In our continuing effort to develop a puppet theatre at Hampshire, this term's workshop will concern itself with designing and preparing a marionette production of "Antigone".

As the planning will involve the careful coordination of work by a number of people to achieve a unified scale and style, the design for each part of the production must be worked out in detail prior to its making. The first part of the term, therefore, will be spent drawing up these plans, the second part in their execution.

There is an attempt in this course to introduce the modes of thinking involved in theatrical production. One should not confuse it, therefore, with a crafts course. We will be concerned with the craft of marionette construction; however, much of our time will be spent learning how one analyzes a play, how to prepare a script for marionette production, and how to translate these into the physical terms of production - line, mass, color, light, sound, movement.

Enrollment is limited to 16 Hampshire students. Additional students will be accepted through the Five College.

HA 151(HA 251)

## COMPOSERS' SEMINAR

James McElwaine

An opportunity to work at the craft of musical composition or orchestration. Numerous short projects will be assigned, all of them to be composed or arranged for the class's own instrumentation, so that rehearsals and performances of your music will be an in-class experience.

The class will meet three times a week for 1½-hour sessions. Admission to the class will be by interview with the instructor.

General requirements: Fluency with either traditional or jazz notation and competent performance upon at least one musical instrument.

Enrollment is limited to ten students.

HA 154(HA 254) SIGHT SINGING AND MUSICAL DIRECTION

James McElwaine

Ear training; singing all types of melody at sight; also melodic, harmonic, and rhythmic dictation.

A knowledge of musical notation and elementary theory is prerequisite. Our texts and examples will include all musical styles. Two classes per week, one hour each. Admission to the class by personal interview.

Enrollment is limited to twenty students.

Joanna Hubbs and John Ford

The course will examine three interrelated concerns: first, the relationship of the historian to the filmmaker, of historiography to the photographic process; second, the investigation of possibilities which cinema has opened up for perceiving the historical past; and third, the attempt to formulate out of the union of historical and cinematic expression an "aesthetic of history", which, by extension will move us in the direction of an aesthetic of film. We will examine the problems which confront both historian and filmmaker in their perception of time and in their relationship toward the material (objective-subjective).

The effect of history on art and on cinema in particular tends to break down into two aesthetic theories. The imposition of history on art points to a theory of forms or conventions, while the imposition of art on history, largely in the form of subjective documentation, points to a theory of historical or social criticism. In these two directions are also to be found the diverging interests and influences of the aesthete, the intellectual, and the scientist on both history and cinema. The large differentiation of subjectivity and objectivity also emerge at all these points.

These categories are by no means the only ones to be found, and they are themselves perhaps in need of further substantiation. In all their endless permutations they cannot simply be set apart and solved. The aim of the course is to be an investigation of these possibilities pointing finally toward an aesthetic of history and an aesthetic of cinema.

The materials for this course include works dealing with historiography in order to orient ourselves to the many interpretations of the meaning of history and of the techniques of transcribing the past. We will look at theoreticians ranging from the didactic Voltaire, to the objectivist Ranke and the Idealist Croce as well as examining types of historical research from the historical novel, to intellectual history, to socio-psychological approaches. We will examine a number of key works on cinematic theory (Bazin, Kracauer) as well as the notebooks of film directors (Eisenstein, Cocteau). Finally, we will be seeing a wide range of films from documentary to surrealist.

In addition to the readings, a number of papers dealing with the reading and viewing assignments will be required.

The class will consist of lecture-discussions meeting twice weekly for two hours. Several films every week will be shown outside of class. In the last quarter of the semester, one of the sessions will be devoted to tutorials working on specific projects.

Enrollment is open but an interview with the instructor is required.

\*John Ford is a Division II student.

HA 185 (HA 285)

HOW BACH DID IT:  
TECHNICAL ASPECTS OF MUSIC

Randall McClellan

Joheun 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." In an attempt to gain insight into Bach's style, we will try to think as he thought, compose 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 Rieman-schneider edition of the Bach Chorales and the Two-Part Inventions.

The class will meet three times weekly for one-hour periods. This course constitutes Part III of a series in the technical aspects of music. Prerequisite: ability to read music and a familiarity with the fundamentals of music.

HA 186 (HA 286)

## MUSIC AT HAMPSHIRE

James McElwaine

This course is a continuation of last term's "Workshop in Musical Performance." Meeting as a group once a week, we will listen to each other's performances, discussing them technically, historically, and aesthetically. Tutorial ensembles will account for the balance of the course; these ensembles range from string and wind groups to jazz and rock ensembles.

The class will meet once a week for 1½ hours plus tutorial ensembles. Enrollment is unlimited.

## HA 201

## THE AMERICAN LITERARY LANDSCAPE

David Smith

"The land was ours before we were the land's," says Robert Frost, who also speaks of our "vaguely realizing westward." This course will examine the function of the specifically American setting in the work of a number of American writers from the Puritans through Faulkner and Frost.

Neither a survey nor a course in one genre, the course will instead concentrate on four related sub-themes for which literary examples are plentiful: wilderness, virgin land, the garden, property. Around each of these ideas cluster a number of assumptions, attitudes, and myths, and a lot of good writing. Some likely examples: William Bradford, Captain John Smith, William Byrd, Thomas Jefferson, Crèvecoeur, Cooper, Thoreau, Hawthorne, Mark Twain, Frost, Faulkner, Robert Lowell, James Dickey.

Format of the course will be weekly lectures. The class will meet twice weekly for two-hour sessions. Enrollment is open.

## HA 202 CHANGING STYLES IN WESTERN MUSIC: A HISTORY (PART I)

Randall McClellan

This is a two semester course which traces the process of changing styles and forms in the music of Western Civilization from the time of the Ancient Greeks to the present day.

Part I will cover the period from the Greeks to 1750. Part II, offered in the Spring, will cover the years 1750-1970.

An integral part of this course will be an emphasis upon an analytical approach to the music under consideration. For this purpose selected compositions representative of each style period will be carefully analyzed in order to follow the development of compositional techniques, the emergence of the triad as the principle component of Western harmony and the establishment and disintegration of functional harmony. Thus the student will develop effective analytical techniques with which to approach the music of any style period as well as an understanding of the process by which Western music has evolved over the past two thousand years.

The class will meet twice weekly for 1½ hour sessions. Our text, History of Music in Western Civilization by Donald Grout, will be supplemented by selected musical examples for analytical purposes. The course will require extensive reading and listening.

Enrollment is open.

Prerequisite: Interview with instructor to determine adequacy of theoretical background for analytical work. Division I students with adequate theory background will be allowed to take the course.

It is suggested that students who contemplate taking this course familiarize themselves with intervals and triads during the summer months.

HA 204

## CLOWNS

Clay Hubbs

A study of some representative twentieth century "rogue" novels. We will be most concerned with the individual works--by Thomas Mann, Heinrich Boll, Ignazio Silone, Samuel Beckett, Graham Greene, Saul Bellow and others--all good books that will demand and will reward careful reading. But we will also try to relate them to the tradition of the picaresque novel (the account of the rogue or clown on his travels) and of the "conventional" novel. We will also deal with whatever questions our reading may raise -- e.g., the changing forms of modern fiction, the relationship between literature and society (and morality).

Students will be expected to write two short papers and give a class presentation.

Class will meet twice a week for 1½-hour sessions, roughly one session for lecture, one for discussion. Enrollment limited to twenty students.

HA 218

## GREEK LANGUAGE AND LITERATURE

Robert Meagher

In this class we will work toward a reading knowledge of classical Greek as well as toward a thoughtful encounter with some of the finest writings of classical Greece. Both endeavors are necessarily long ranged; and, consequently, we must begin with the anticipation of at least one year's work. There is little sense in less than a year's study of Greek. However, after one year of formal study, it is quite likely that one could read some important texts in the Greek and that one could also continue rather well on one's own from there.

Two class meetings each week will focus on learning the language; and the third class will consist in our reading and discussing major Greek literature by Homer, Aeschylus, Sophocles, Euripides, Aristophanes, Plato, Aristotle, Herodotus, and Thucydides. In the beginning, these readings will be in translation; but we will work toward a fuller and fuller use of Greek in this section of the class.

Enrollment limited to ten students.

## HA 219 AMERICAN FICTION 1875-1950: INNOCENCE AND EXPERIENCE

Richard Lyon

American writers have sometimes advocated, sometimes criticized, sometimes deplored those qualities in the American which, taken all together, comprise what has been called his "innocence". Many different qualities, not always appearing together, define the innocent: the seeking of a new and direct relation to nature and the cultivation of a sense of wonder, an openness to all experience and an emphasis on the present, a trust in spontaneous judgment and intuition as ways of knowing, a reliance on the inner self--a self impervious to evil, the celebration of childhood and youth, and the sense that sincerity is morality enough.

Such qualities imply certain rejections. The American innocent will tend to regard the past as a dead weight on the present and so will turn his back on history, preferring living purposes and the Now. He will distrust the traditions, customs, and social distinctions of older alien societies, distant in time and place. He will distrust analysis, or too much analysis, and may distrust experts. His love of nature may lead him to deplore the city, and may lead him away from society altogether. He will deny that tragedy or evil are fundamental in the world or in human nature.

American fiction has often represented these qualities in its heroes and heroines, its victims and dupes. Innocence may be dramatized in contest with malevolent human nature, or with forces moving out of history into the present. It may be shown confronting Europe, war, unintelligible complexity, corruption. A hundred short stories and novels trace the passage of the American innocent through hard experience to a new and chastened awareness.

The writers to be read include Mark Twain, Henry James, Harold Frederic, Stephen Crane, F. Scott Fitzgerald, Ernest Hemingway, William Faulkner, Robert Penn Warren.

Open enrollment  
Lectures and group discussions



HA 221      STUDIO EXPERIENCE IN DANCE AND MOVEMENT

Francia McClellan

Section A. IMPROVISATION and CHOREOGRAPHY - A Process for Movement Exploration

This class, for those with experience in creative processes, will explore the dynamics of movement through improvisation. We will incorporate material for motion drawn from natural design, natural forces, colors, sounds, everyday movement, tasks, environmental spaces, props, masks, and emotional gesture.

Through readings we will be in contact with current and past practices in dance choreography and cooperative efforts with dancers and allied arts.

There will be weekly projects. The class will meet once a week for 2½ hours. Discussion with the instructor is suggested.

Section B. Modern Dance Advanced Technique Class

This class, for students with the required level of technical proficiency will meet twice weekly for 1½ hours. There will be no outside work. The class work will be derived from the techniques of Jose Limon, Merce Cunningham and Lester Horton.

HA 222      THE CAMERA AS WITNESS  
or Documentary Image

Elaine Mayes

The camera produced image is unique in its ability to record and reflect the world in which we live. Since the inception of photography during the mid-nineteenth century, many approaches, styles, and philosophies concerning its use have evolved. In addition technological advancements have brought the potential and application of camera imagery into all aspects of our lives. television, movies, newspapers, books.

This course will deal with the study and production of the documentary image. Students will view and examine past and present documentary approaches, and will attempt to determine individually his or her relationship to the documentary tradition. Each student will undertake a major documentary project using still photography, video tape, or film.

Enrollment is limited to 25 Division II students. Admission is by portfolio and consent of instructor. The class will meet once a week, all day.

HA 250

PROBLEMS IN ENVIRONMENTAL DESIGN:  
ISSUES AND IDEAS

Norton Juster and Earl Pope

This course will investigate some of the important practical, technological, and philosophical problems confronting environmental designers today and the directions and possibilities for the future. The course will examine both the ideas and the practitioners that have influenced design, some of the historical background that establishes the context for their work, and the implications and effects of their work.

The work will be organized around a series of seminars on the "literature of form" as well as related field studies and critical investigations of existing projects.

Students will be responsible for extensive reading on the subjects chosen as well as the detailed preparation of at least one major seminar (including visual material) and several projects. The focus and scope of the material studied will be mutually determined by the class and the instructors.

Class size is limited to 12 students and will meet twice a week for two-hour sessions. While there are no formal prerequisites, the course presupposes some background or prior concern for environmental studies. Admission to the class by approval of the instructors only.

HA 260 THE TROUBADOURS: NERUDA, VALLEJO, GUILLÉN

Robert Marquez

The Journals of Ralph Waldo Emerson include the following entry: "Give me initiative, spermatoc, prophesying, man-making words." It would be difficult to find a more appropriate expression of the creative spirit behind the work of Pablo Neruda (Chile: 1904-1972), César Vallejo (Peru: 1892-1938), and Nicolás Guillén (Cuba: 1902-1960). Combining the lyrical with the prophetic and indeed the apocalyptic, these poets turned from the hermetic self-centeredness of a purely private anguish to the public role, the more ecumenical vision, of the troubadour whose songs help to define and mold at the same time that they reflect the ethos of a people. That they are honored as the national poets of their respective countries of that Neruda's publications include his own Canción de gesta is no accident.

In this course, we will take a close, in depth look at the poetry and poetic development of these renowned and influential poets, paying particular attention to:

- their approach to the poet's craft
- the nature and consistency of their "worldview"
- their attitude toward literary trends and fashions
- their role as "national" or "continental" poets
- the Revolution: Poetry, politics, and the masses

The approach will be comparative, with an eye to exploring the nature and specific importance of generational and extra literary experiences--such as their common experience of the Spanish Civil War or their membership in the Communist Party--among poets whose differences are as intriguing as the similarities.

Though a reading knowledge of Spanish is recommended, enrollment in this course will be restricted only by the inavailability of the poets' work in English translation.

The course will meet twice a week for 1½ hours.

Readings will include the following:

Nicolás Guillén: Sóngoro Cosongo, El son entero, La paloma de vuelo popular, Tengo, El gran zoo.

César Vallejo: Los heraldos negros, Trilce, Poemas humanos, España, aparta de mí este caliz.

Pablo Neruda: 20 poemas de amor y una canción desesperada, Tercera residencia, Canto General, Odas elementales, Canción de gesta.

Enrollment 20-24.

HA 280

## STUDIO ART WORKSHOP

Robert Mansfield

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, graphic design, or typography, etc., and meet as a group for regular critique sessions.

Field trips and visiting artists will be part of this program.

Students will be responsible for the purchase of all their studio materials.

The class will meet twice weekly for two-hour meetings. Enrollment is limited to 15.

HA 301

## RESEARCH AND CRITICISM IN THE VISUAL ARTS

Jerry Liebling

This course is an integrative seminar, open to all Division III students of any concentration.

1. Contemporary Ideas in the Arts.
2. Historical perspectives.
3. The creative process.
4. Popular Arts.
5. Art and Money.
6. Current Masters - Old Masters.
7. Museums and Monuments.
8. Technology and the Arts.
9. Crafts as Art - Art as Craft.
10. Definition and Bibliography.
11. Some assignments.

Following the outlined topics, the course will integrate current and historical perspectives in the arts with the varied interests and concerns of the students enrolled. The course will expect strong participation of the students in the manner of readings, research, interviews, culminating in an original presentation for critical appraisal by the class and instructor. The form of presentation can be varied. The class will be limited to 25 students.

Class times to be arranged.

## SCHOOL OF LANGUAGE AND COMMUNICATION

LANGUAGE ACQUISITION LC 105	J. Foplin T. Wasow
INTERPERSONAL COMMUNICATION <u>LC 111</u> (SS 107)	N. Stillings J. Tallman
THOUGHT AND LANGUAGE: LECTURE SERIES AND MODULES LC 123	Staff
ENGLISH SYNTAX LC 133 (LC 233)	T. Wasow
AUTOMATA THEORY LC 138 (NS 128)	J. LeTourneau
HUMAN LANGUAGE AND HUMANE SCHOLARSHIP: EDWARD SAPIR (1884-1939) AND NOAM CHOMSKY (1928- ) LC 140	R. Rardin
JOURNALISM AS PUBLIC DIALOGUE: A WORKSHOP IN WRITING AND INFORMATION GATHERING LC 144	D. Kerr
CONVERSATION ANALYSIS LC 147	J. Tallman
LECTURE SERIES: THEORIES OF INTERPERSONAL COMMUNICATION <u>LC 148</u> (SS 179)	N. Stillings
LECTURES ON LANGUAGE LC 149	R. Rardin
DATA PROCESSING AND DATA REDUCTION LC 151	S. Mitchell M. Sutherland B. Manchester
EXPLANATION IN LINGUISTICS LC 152 (LC 252)	E. Bach
COMPUTER LABORATORY LC 153	Self-instruction
FORMAL LOGIC LC 202 (NS 123 NS 223)	J. LeTourneau

TOPICS IN COGNITIVE DEVELOPMENT LC 214	Y. Tenney
RESEARCH APPRENTICESHIP IN COGNITIVE DEVELOPMENT LC 216	Y. Tenney
ADVANCED TELEVISION PRODUCTION WORKSHOP LC 217	R. Muller
RESEARCH METHODS IN PUBLIC COMMUNICATIONS LC 218	D. Kerr
RATIONALITY LC 219	M. Radetsky
CURRENT ISSUES IN THE PHILOSOPHY OF PERCEPTION LC 221	C. Witherspoon

## SCHOOL OF LANGUAGE AND COMMUNICATION

Curriculum Statement: Fall 1973

The twentieth century has seen major, sometimes interrelated, revolutions in several of the academic disciplines studying human thought, language, and reasoning. Philosophy has gone through several which were characterized by the attitude their proponents took toward language; the development of logic in the early part of this century, culminating with the spectacular results of the nineteen-thirties, provided the concepts and results necessary to develop and understand the computer; in part based on these concepts and results, linguistics underwent about twenty years ago a profound change which has had a strong impact on philosophy, psychology, and the study of human interaction; the new discipline of computer science has provided models (at first too limited, but now increasingly sophisticated) for psychology; recent work in semantics involves the interplaying of ideas (some quite ancient) from philosophy, with the very powerful, primarily syntactic, current linguistic theories.

Computers can perform millions of specified simple linguistic, arithmetic, or logical steps per second; other machines and devices have been developed which allow one person to communicate instantaneously with millions of others. The impact on the public of this "mass" communication through print and electronic media and the legal, social, and ethical questions raised need to be explored.

For convenience we list below the areas or disciplines "covered" in Language and Communication; students interested in concentrations in or involving any of these should consult with the faculty members mentioned. Clearly courses from other Schools are relevant to our concerns, and some of their faculty share interests with us. Conversely, some of our courses include subject matter or skills that other Schools may find useful for examinations or concentrations.

Linguistics. We are fortunate in having Emmon Bach as a Visiting Professor, and unfortunate in having Thomas Wasow leaving after the Fall Term. Since Robert Rardin will be on leave for the Spring Term, students interested in taking a linguistics course here should schedule it in the fall. Four courses which can serve as introductions to this field have been reserved for students with no previous Language and Communication courses: Koplin's and Wasow's seminar on Language Acquisition; Rardin's on Human Language and Humane Scholarship; Rardin's Lectures on Language; and the jointly taught, multidisciplinary Thought and Language. Two introductory courses open to all students are Bach's Explanation in Linguistics and Wasow's English Syntax. The only Spring Term course now planned which directly deals with linguistics is a Division II and III course tentatively titled Linguistic Structures, which will be taught jointly by Professors Bach, Marsh, Stillings, and Witherspoon.

Cognitive Psychology. We have three faculty members with strong interests here: James Koplin (who will be on leave for the academic year 1974-75), Neil Stillings, and (subject to Trustee approval) Yvette Tenney. Fall Term courses in this area reserved for students new to Language and Communication are Koplin's and Wasow's Language Acquisition and the jointly taught Thought and Language. Professor Tenney will teach Topics in Cognitive Development in Division II and will be available to direct qualified students in joint research or independent study projects in developmental cognitive psychology. Next spring Professor Koplin plans to offer in Division II an Introduction to Cognitive Psychology; Professor Stillings will bring the cognitive psychologist's perspective to Linguistic Structures. Students interested in this area are strongly advised to consider taking Bach's Explanation in Linguistics, Wasow's English Syntax, or Witherspoon's Philosophy of Perception.

Interpersonal Communication. This area has been studied by anthropologists, psychologists, and sociologists. Persons in the School of Language and Communication who have a strong interest here are Neil Stillings and Janet Tallman, who together are offering a course reserved for students with no previous Language and Communication course work; also for such students, Professor Stillings is offering a lecture series, Theories of Interpersonal Communication, and Professor Tallman is offering Conversation Analysis. In the spring Professor Tallman plans to offer a Division II course on the work of Erving Goffman and R. D. Laing.

Philosophy. The School of Language and Communication has two philosophers: Michael Radetsky and Christopher Witherspoon; in addition, the mathematical logicians J. J. LeTourneau and William Marsh are members of the Five-College Philosophy Department. Students with no previous Language and Communication course who want an introduction to analytic philosophy can take Thought and Language. Advanced students can take LeTourneau's Formal Logic, Radetsky's Rationality, or Witherspoon's Philosophy of Perception, and in the spring, Radetsky's Action, Reason, and Intention, Witherspoon's Knowledge and Certainty, and Linguistic Structures taught by Bach, Marsh, Stillings, and Witherspoon. Students interested in philosophy might also consider taking Bach's Explanation in Linguistics and Wasow's English Syntax.

Mathematics. Both of the mathematical logicians will be on leave part of next year: Professor Marsh in the fall and Professor LeTourneau in the spring. Students with some background in mathematics should consider LeTourneau's Formal Logic this fall; he is teaching Automata Theory for students new to Language and Communication. In the spring Professor Marsh will offer a Division I and II course, Strings, Trees, and Languages, and will participate in Linguistic Structures.



Computer Science. We expect to appoint a full-time person in this area beginning this fall. Courses planned by the current faculty are Professor LeTourneau's Automata Theory and Professor Mitchell's Data Reduction and Data Processing. In addition to regular courses, we will provide facilities to teach the programming language APL. The facilities are designed to be 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 videotaped lectures, film, a series of programmed exercises, and texts. A lab assistant will be available as a resource for solving puzzles and problems and some classroom-type problem solving sessions will be scheduled. The student who has no experience with computers or programming can be introduced to the subject at whatever pace is comfortable. Since the basic materials may also be used entirely independently and quickly, an experienced programmer who wants to add APL to his repertoire can do so in this way. The system we use also supports other languages, in particular, FORTRAN and BASIC.

Public Communications. We hope to make an additional full-time and a replacement part-time appointment in this area before the College opens this fall. The current faculty includes two people with strong interests in this area: David Kerr and Richard Muller. Professor Kerr is offering Journalism as Public Dialogue for beginning students and Research Methods in Public Communications for advanced students; Richard Muller is offering Advanced Television Production Workshop for students interested and able to perform the special tasks involved.

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Division II courses in the School of Language and Communication will as a rule be fully comparable in difficulty and sophistication to moderately advanced courses for majors offered at traditional universities and liberal arts college in this country. They will range from comprehensive survey courses of the type offered elsewhere for prospective majors at a sophomore level to intensive seminars of a type usually intended for senior majors and graduate students.

In the Division I examinations a student establishes his or her ability to participate significantly in Division II courses; to take such courses with genuine profit; and to do independent work of the same quality she or he does (or would be doing) in such courses. In their Division I examinations, students need not demonstrate familiarity with the subject matters of whatever Division II courses (if any) they plan to take. Rather, they are expected to show the following: (a) that they are reasonably familiar with a body of material which belongs in a Language and Communication area; (b) that they have an awareness of, and some degree of critical understanding of, the intellectual techniques, methods, strategies, etc., exemplified in that body of material for which they are responsible; (c) that they are capable, at least at an elementary level, of using and applying those techniques, etc. to problems and subject matters other than those of primary concern in the material they are responsible for. All this goes for students who don't intend to do further work in Language and Communication just as much as for those who do.

What we're looking for is a certain degree of development of a student's abilities at formulating and solving problems together with a rudimentary understanding of what's going on when such abilities are exercised by one self or others; and this of course with respect to both Language and Communication subject matter and "methods of inquiry" more or less specific to the Language and Communication disciplines. We're not looking for "mastery of a body of knowledge"; or for abilities and skills at performance and/or creative activity which might seem germane to the areas included in the School; or for evidence of students having had "peak experiences" or profound and unexpressible insights into deep, dark matters; or for solid course term papers which don't provide evidence of the kinds of abilities and knowledge indicated above in (b) and (c).

All this perhaps sounds more formidable than it ought to. Many of our best students in the past have expected much too much of themselves in their Language and Communication Division I examinations. They've waited around for results or theories which properly belong in a PhD dissertation, or important scholarly monographs; a number of them have done excellent work in Division II courses while continuing to view themselves as totally unprepared to do their Division I examinations. Some of these people could have easily passed their Division I examination on entering Hampshire, and if they had, their lives would have been a lot easier.

An average Hampshire student should anticipate study preparatory to the Division I examination equivalent to what would be done in the course of roughly one and a half Division I seminars or courses. Some students may well need more preparation, others much less.

There are several ways in which the "and a half" can be taken care of. There will be several lecture series in the fall of 1973; among them are Robert Rardin's, Neil Stillings', and the lectures in the initial third of the Thought and Language course. Work in the computer lab and work done on independent study packets which will be made available will also serve to generate examination tasks; as of course will work done in appropriate high school courses, hobbies, etc.

There is no need whatsoever to have One Big Exam Task for one's Language and Communication Division I examination. It is at least as acceptable to have a number of tasks which turn out to be unrelated to each other; in light of current misconceptions, this point cannot be emphasized enough. Each student should have one Language and Communication faculty member designated as (overall) supervisor of his or her committee; but the supervisor need not be an examiner on each of the tasks undertaken. One's examination committee consists of her or his supervisor together with all examiners; it is required that committees include at least one qualified examiner other than the examination supervisor. All tasks, criteria of satisfactory performance, understandings about material the student is responsible for, etc., are negotiated with one's supervisor and members of the relevant subset of one's examination committee. These should be negotiated prior to beginning work on the examination; otherwise students may do a lot of work for virtually nothing as a result of misunderstanding what the School and their committees require.

In many other colleges, seniors must pass comprehensive examinations in their major fields of study in order to graduate. Although Division II concentrations at Hampshire may be quite unlike traditional majors (for example, in being interdisciplinary, sometimes involving advanced work in two or more Schools; or in covering areas much narrower than traditional major fields, areas such as the foundations of mathematics, cognitive psychology, sociology of communication; or in comprising fewer courses and more independent study than would be allowed in most other colleges), what is expected of students in their Language and Communication Division II examinations is comparable to what is expected elsewhere of students in their senior comprehensive examinations, or in their examinations taken prior to beginning honors projects. We're looking for a certain breadth of knowledge which contrasts with the more specialized knowledge and skills directly involved in Division III work. Equally important, we want to see a knowledgeability and level of intellectual maturity which contrast fairly sharply both with what can be reasonably expected of Division I students and with what students can expect to attain by their work in Division I courses, however many.

LC 105

## LANGUAGE ACQUISITION

James Koplin and Thomas Wasow

Almost all children acquire the language of their community on a regular schedule and within a relatively short period of time. We will spend most of this course examining what it is that the child does in this task. Special attention will be given to the descriptive material in such sources as Roger Brown's studies of pre-school children and Carol Chomsky's analysis of the continued development of language in the grade school years. There is no substitute for a thorough acquaintance with this work as assistance in avoiding inadequate answers to the question, "How does a child do it?" The only accurate answer at this time, however, is that "nobody really knows."

Each student who enrolls in the seminar will be encouraged to locate a child in the community whose language development can be observed during the term. This is not a requirement, but experience with this course in the past has indicated that this concrete field observation of a child in the process of acquiring language was an invaluable aid to understanding the theoretical issues discussed during class sessions. Time will be made available near the end of the term for these students to report on their work for the benefit of everyone.

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

Enrollment limit: 32

LC 111 (SS 107)

## INTERPERSONAL COMMUNICATION

Neil Stillings and Janet Tallman

The focus of this course will be on the way people behave in face to face situations. The first part of the term will be spent examining several approaches to face to face interaction, primarily Goffman's theories of social interaction, plus the approach of the ethnomethodologists and some writing on nonverbal communication. In addition, we will look at different experimental methods for studying face to face behavior. In the latter part of the term we will be doing field projects on face to face behavior in and around the Hampshire community. There will be two discussion meetings per week, and students are also expected to attend the lecture series "Theories of Interpersonal Communication," which meets once a week. The course is open to Division I students. Students who have passed their Division I Language and Communication examination or have studied some of the above material in another class need permission of the instructor.

Enrollment limit: 32

## LC 123 THOUGHT AND LANGUAGE: LECTURE SERIES AND MODULES

Language and Communication Staff

The first half of this course will be devoted to a lecture series, which will be taught jointly by Richard Lyon, Michael Radetsky, Neil Stillings, Thomas Wasow, and Christopher Witherspoon. All students registered for the course will attend this lecture series.

In the second half of the course Richard Lyon, Michael Radetsky, and Christopher Witherspoon will each offer a modular seminar. Each student will take one of the three seminars. The meeting times for the seminars will fall during the times used for the lecture series.

It is expected that many students will use their work in the course for Division I examinations. Descriptions of the lecture series and the seminars follow.

## LECTURE SERIES

R. Lyon, M. Radetsky, N. Stillings, T. Wasow, C. Witherspoon

Claims that thought is determined by language are called linguistic relativity hypotheses, a term coined by the linguist Benjamin Lee Whorf. The lecture series will present an integrated interpretation and analysis of the versions of the linguistic relativity hypothesis that have arisen in various disciplines. The claims of Sapir and Whorf that our experiences and thoughts are built up from the language that we speak have been the most prominent work in linguistics. The innateness hypotheses developed recently in the theory of transformational grammar, however, point toward a position that is incompatible with the Whorf-Sapir hypothesis. The experimental methods of cognitive psychology have also made precise and well-controlled tests of linguistic relativity hypotheses possible, and there is now an exciting body of literature reporting such experiments. In any discussion of linguistic relativity some decidedly philosophical questions arise from the need to found the discussion on good conceptual analyses of the terms being employed. The consideration of these questions rapidly leads toward several well-known philosophical issues, e.g. Quine's thesis on the indeterminacy of translation and Wittgenstein's private language argument. Finally, literary language raises some special versions of the relativity hypothesis, e.g. claims that certain works cannot be translated, or that style and content are inseparable. The claims of the New Critics on the latter issue have recently been attacked by Ohmann and others who are doing stylistic analyses based on transformational grammar.

The lectures will be accompanied by assigned readings, and each lecturer will suggest several topics that can be used for part of an L & C Division I examination.

## MODULE: LITERARY REVOLUTIONS

Richard Lyon

Revolutionary poets, playwrights, novelists, and critics in every age and every country have declared the need to reform their language in order to make it serve the new needs of their time and place or to express a new awareness. Public calls for a revolution of the "word" have been numerous and impassioned in the United States, and especially in the nineteenth century. The new democrat in a new continent insisted that the English language also be made new, or be re-made, to accord with the circumstances and sensibility of a revolutionary nation unlike any other. Thus Hawthorne, in Longfellow's novel, *Kavanaugh*, declares roundly:

"We want a national literature commensurate with our mountains and rivers. We want a national epic that shall correspond to the size of the country. We want a national drama in which scope shall be given to our gigantic ideas and to the unparalleled activity of our people. In a word, we want a national literature altogether shaggy and unshorn, that shall shake the earth, like a herd of buffaloes thundering over the prairies."

The purpose of the course is to notice and analyze the implicit assumptions and the explicit assertions of such calls to radical literary action. What kinds of relation do they assert between thought and language? In what sense or senses may language betray experience? Is there such a thing as a "national mind," a group awareness, which language may serve well or badly?

Close readings will be made of selected passages in Wordsworth, de Tocqueville, Lowell, Whitman, Mark Twain, Emerson, and several modern critics, e.g. Lionel Trilling, R. W. B. Lewis, George Steiner, Edmund Wilson, Walter Lippmann.

## MODULE: THE MEANING OF MEANING AND THE REFERENTS OF REFERENCE

Michael Rädetsky

When I said, "The grass is green," I meant that the grass is green. When I said, "He is a real nice guy," I meant that he is a bastard.

When I said, "The grass is green," I was referring to the grass on the roundabout in front of Hampshire. When I said, "He is a real nice guy," I was referring to whoever started that rumor, though I have no idea who did. When I said, "The unicorn is a mythological beast," I was referring to ....?

We can mean things and refer to things by what we say. But how does what we say "mean" or "refer"? Is there a connection between meaning and referring? In this module we will discuss a number of conflicting views on meaning, reference, and the relation between them, and then take a look at some interesting puzzles about reference, for example, sentences that refer to themselves: "This sentence is false," and sentences where rules about identity seem to break down: "Smith thinks that whoever sells dope should be horsewhipped." "Smith thinks that his daughter should be treated kindly." "Smith's daughter sells dope."

Readings: Grice, "Meaning"  
 Linsky, "Reference and Referents"  
 Russell, "On Denoting"  
 Other selected articles

This module will meet once a week for six weeks.

#### MODULE: AN INTRODUCTION TO CONTEMPORARY PHILOSOPHY

Christopher Witherspoon

The Whorf-Sapir hypothesis can be formulated in various ways, and there are several distinct positions (along with even more indistinct positions) which a "linguistic relativist" may be taken to be espousing. Some of these formulations express hypotheses which are clearly of an empirical nature, i.e. things to be confirmed or refuted on the basis of results of scientific or perhaps even commonplace investigation. Others seem to express conjectures unaffected and unaffected by empirical findings of any sort. These latter statements apparently express philosophical positions which are appropriately decided in an *a priori* way. In addition, the more natural, though perhaps naive, interpretations of statements of the former kind (which express empirical hypotheses) often involve presuppositions which are philosophically important and controversial.

In this seminar we will be dealing with some writings of very important contemporary philosophers which bear on issues associated with various renditions of the Whorf-Sapir hypothesis and its first cousins. Which issues, which philosophers, and which writings has not been finally decided. Among the things we might well read are parts of Quine's Word and Object and From a Logical Point of View; Wittgenstein's Blue and Brown Books; and David Pears' Ludwig Wittgenstein; several articles in Strawson, ed., Philosophical Logic; Morick, ed., Challenges to Empiricism, and Hook, ed., Linguistics and Philosophy. Among the issues we might end up dealing with are ones having to do with translation and presuppositions of translation; meaning; the adequacy of natural language for purposes of expression of "natural thought"; inner experience, particularly sensory experience, and e.g. how we ascertain what another is experiencing; various implications of the conventional nature of certain things involved in language and the use of language.

This seminar is intended to serve both as a brief introduction to contemporary philosophy and as a context for clarifying and illuminating some aspects of the problems dealt with in the lecture series which are of philosophical interest.

The course will meet three times a week, 1 1/2 hours each session.

Enrollment limit: 48

## LC 133 (LC 233)

## ENGLISH SYNTAX

Thomas Wasow

Using language consists in part of putting words together to form sentences. Certain combinations of words are recognized by all speakers of English to be sentences. Other combinations just "don't sound right" to us, even though we may know perfectly well what they mean. For example, any speaker of English would understand the utterance, "I don't like the movie which you know the guy who directed it," but he or she would also recognize that there is something wrong with it.

The principles involved in constructing sentences constitute the discipline of syntax. The most extensive and controversial work in this area has been done within the general framework known as "transformational grammar." This work has stimulated much research into the semantics of natural languages, and it has important implications for philosophy and psychology.

This course will be an introduction to transformational syntax. Its emphasis will be on the methodology involved in discovering the principles of English syntax. Class meetings will be devoted largely to solving specific problems, and there will be many exercises. The textbook will be Akmajian and Heny, Principles of Transformational Syntax.

This course should be taken by anyone planning to do advanced work in Language and Communication that involves linguistics.

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

Enrollment limit: 32

## LC 138 (NS 128)

## AUTOMATA THEORY

J. J. LeTourneau

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 session.

Enrollment limit: 16



LC 140 HUMAN LANGUAGE AND HUMANE SCHOLARSHIP:  
EDWARD SAPIR (1884-1939) AND NOAM CHOMSKY (1928- )

Robert Rardin

Edward Sapir and Noam Chomsky have made brilliant contributions in this century to the study of linguistics. Sapir's book Language, and his research in American Indian languages, remain central to modern linguistics. Chomsky's work on the theoretical foundations of linguistics caused a conceptual revolution in the field, with shock waves extending to other social sciences, particularly psychology.

Sapir and Chomsky have done more than study the structure of language, however: their intellectual genius has always been informed by social conscience.

In addition to being a linguist, Sapir was an anthropologist, poet, and critic. He was passionately concerned about the quality of life. In an essay written after the first world war, Sapir wrote, for example: "A genuine culture refuses to consider the individual as a mere cog...The major activities of the individual must directly satisfy his own creative and emotional impulses, must always be something more than means to an end. The great cultural fallacy of industrialism, as developed to the present time, is that in harnessing machines to our own uses it has not known how to avoid the harnessing of the majority of mankind to its machines."

In the same intellectual tradition, Chomsky has divided his time between linguistics and social criticism: "Any person who is paying serious attention to the contemporary scene must face a serious dilemma. On the one hand, he wants to accept the role of a responsible and sane citizen which, to me, entails a willingness to commit himself to bring about large-scale changes in American society. And at the same time he wants to make his own contribution to contemporary culture, whatever it may be, as a scientist, as a scholar, as an artist. It is not so obvious that these roles are reconcilable...and if either is abandoned it can be done only at significant personal and social cost."

This seminar will explore the "dilemma" to which Chomsky refers. We will seek to integrate the works of these two scholars, to understand the connection between their linguistic work and their social concern.

Readings will include Sapir's book Language, his articles on "Communication," "Language and Environment," "The Meaning of Religion," and "Culture, Genuine and Spurious," and a selection of Sapir's poetry. We will read John Lyon's brief summary, Noam Chomsky (Viking paperback, 1970), Chomsky's lectures in Language and Mind, and some of his less technical articles, including "The Current Scene in Linguistics," "The Responsibility of Intellectuals," "On Resistance," "Indochina and the American Crisis," "On the Limits of Civil Disobedience," and "Anarchism."

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

Enrollment limit: 16

LC 144 JOURNALISM AS PUBLIC DIALOGUE:  
A WORKSHOP IN WRITING AND INFORMATION GATHERING

David Kerr

This workshop is designed to help students improve their existing writing skills and to assist them in developing new ones. Principles of communication theory will be examined and applied to written communication, particularly reporting for the mass media.

The main thrust of the workshop will be toward training in gathering, analyzing, and effectively communicating information to specific audiences. While expository writing will be emphasized, editorial writing and narration will also be covered.

In addition to readings in communication theory, reporting in the national press will be analyzed.

Members of the workshop are expected to produce publishable material. Students will be encouraged to submit their work to Climax and other five-college publications in addition to local papers and other appropriate publications.

One or two team projects will be organized to do investigative reporting during the latter part of the term.

The workshop will meet twice a week for 1 1/2 hours the first month and once a week plus tutorials thereafter.

Enrollment limit: 16

LC 147 CONVERSATION ANALYSIS

Janet Tallman

Do the ways in which people converse, as well as the content of their conversations, shed light on their relations, rankings, and what they are able to say to each other? Analysis of conversations has appeared recently as means to several different ends in investigations in philosophy, psychiatry, linguistics, and sociolinguistics, among other disciplines. I would like to focus on conversations from a sociolinguistic point of view, using conversations as a way of seeing patterns in social behavior and in the talk itself. We will do some readings in sociolinguistics and interaction theory, spending the first several weeks learning the ideas of Goffman, Gumperz, Bernstein, Hymes, and others. The main emphasis of the course will be on each member's tape recording and analyzing conversations in natural settings, on finding the patterns the conversations reflect and contain. In the second part of the term we will present these findings to each other, using them to build general theories of conversation. Our sources of conversations will be living groups, classrooms, families, and other situations in which and with which we are familiar. We will look for the ways conversations vary, both topically and to a small extent linguistically, according to varying situations: size of group, sex, age, social position, distance or intimacy of the participants, and general social setting, for example. We will also look for patterns in the flow of conversation, and the social ways of keeping conversation going. No previous knowledge of linguistics is necessary for understanding the work.

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

Enrollment limit: 16

LC 148 (SS 179)

LECTURE SERIES:  
THEORIES OF INTERPERSONAL COMMUNICATION

Neil Stilling

What people say and do when they are together depends on their assumptions about who they are and what the situation is. These assumptions are implicitly constructed and maintained below the surface of every interaction. By looking at some specific situations I will try to show that when the assumptions fail interaction fails. For example, it is revealing to look at the causes of embarrassed silence, or the hesitation or freezing that can occur when a person is in a strange situation. In part, smooth interaction is achieved because each person perceives, consciously or unconsciously, the aspects of the situation that have social meaning, for example, the dress, posture, and tones of voice of the others present. Each person also controls his behavior, consciously or unconsciously, so as to present meanings that contribute to assumptions underlying the interaction. Perception and presentation together form a communication process. I will develop and examine some theories that attempt to account for both the existence of such processes and their particular form in various cultures and groups.

Several fundamental questions will demand attention: What is the nature of the social meanings on which interaction depends? How do people know how to act, and how to interpret others' actions? Exactly how does verbal and nonverbal behavior carry the meanings that are perceived and presented? What methods of inquiry are used in this field? Is a society possible in which people don't make assumptions about each other, and are completely open and undefensive?

The lectures and the reading will emphasize rigorous, abstract theories and careful research. Practical issues such as becoming a better person, or improving group experience, will not be dealt with directly. However, the theories can have important and sometimes unexpected consequences for understanding one's everyday life. I will try to at least point toward some of these consequences. The theorists discussed will be Erving Goffman and selected symbolic interactionists and ethnomethodologists. A selection of research work from sociolinguistics, social psychology, and human ethology will also be treated.

There will be one lecture per week and both assigned and optional reading. The minimum level of participation demanded of the student will be equivalent to one-half of a regular course. This level of participation will allow the student to prepare one part of a two or three part L & C Division I examination. With the optional reading, the lecture series becomes equivalent to a full course.

Students who are taking the Interpersonal Communication seminar are also expected to attend the lecture series, which has the same reading list as the seminar.

There will be one lecture per week for the entire term.

Enrollment limit: none

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 enrollment is large). There will be ten lectures dealing with the following topics:

- language acquisition
- language and the generations
- language and thought
- transformational syntax
- phonology
- dialectology
- Black English
- sociolinguistics
- stylistics

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. Falk. 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 David A. Reibel and Sanford A. Schane; Language in America by Neil Postman, Charles Weingartner, and Terence P. 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

## LC 151 DATA PROCESSING AND DATA REDUCTION

Stephen Mitchell, Michael Sutherland, Barbara Manchester\*

This course will concentrate on the mechanics of computers, data structures, storage and processing. Its aim is to give students, no matter what their background, an understanding of how computers work, what people do with them, and how to go about using one.

By the end of the term the student should be able to trace the basic relationships between truth tables, flip-flops, and binary arithmetic on the one hand, through compilers, statistical packages, and data collection on the other. We will study one language, BASIC, in detail and each student will be asked to mount one project in data collection and manipulation, natural language processing, or any other area requiring a grasp of practical techniques.

The class will meet for two two-hour periods each week. The first two hours will be devoted to lecture and discussion; the second to exercises, field trips, and applications.

Enrollment limit: 24

\*Ms. Manchester is assistant to the director of Management Systems.

## LC 152 (LC 252) EXPLANATION IN LINGUISTICS

Emmon Bach\*

A discipline is defined by the questions it asks. In this course I propose to look at a number of approaches to the understanding of language with a view to uncovering the questions asked in each approach. The course will not be a course in linguistics but a course about linguistics (broadly defined). If successful we will come to understand something about the nature and limitations of human intellectual activity. There will be no prerequisites; whatever we need to know about the technical sides of linguistics, we will pick up as we go along. Readings will be of two sorts: (1) books and papers about explanation and the philosophy of "science" (broadly defined): e.g. Kuhn, The Structure of Scientific Revolutions, Braithwaite, Scientific Explanation, including some work touching on the limitations of the scientific mode of thought; (2) works on linguistics and related areas by e.g. Chomsky, Quine, Bloomfield, Malinowsky, Boas, Paul, Arnauld and Lancelot, Paul Goodman, etc.

\*Emmon Bach is Visiting Professor of Linguistics for 1973-74 (subject to the approval of the Board of Trustees). He is currently Professor of Linguistics at Queens College of The City University of New York.

## Self-instruction

In addition to regular courses, we provide facilities to teach the 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 videotaped lectures, film, a series of programmed exercises, and texts. A lab assistant will be available as a resource for solving puzzles and problems, and some classroom-type problem-solving sessions will be scheduled. The student who has no experience with computers or programming can be introduced to the subject at whatever pace is comfortable. Since the basic materials may also be used entirely independently and quickly, an experienced programmer who wants to add APL to his repertoire can do so in this way. The system we use also supports other languages, in particular, FORTRAN and BASIC.

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. Skills in programming can be used as part of (and in some cases as all of) an L & C examination. Students who are interested in doing L & C examinations in programming should talk to Jack LeTourneau about their ideas.

The laboratory can be used by anyone who needs either a first acquaintance or a further acquaintance with computer languages and programming techniques.

The laboratory does not run like a course. The scheduled activities and hours of the lab assistant are posted at the laboratory room in the Science Building. Most of the activities are modular and are repeated several times each term. Self-study materials are also kept in the lab room.

LC 202 (NS 123 NS 223)

## FORMAL LOGIC

J. J. LeTourneau

Work in logic during the twentieth century has been and continues to be one of the exciting chapters of both mathematics and philosophy. This subject has grown naturally from a descriptive study of "proper reasoning" to an abstract discipline in its own right. In recent years applications of logic have extended beyond the true parent fields to new areas of computer science, linguistics, and cognitive psychology.

In addition to studying some of these applications, the course is intended to accomplish a detailed survey of the major results obtained in logic during this century. Work to be studied includes propositional languages, a study of both the syntax and semantics of first-order languages (including the completeness and incompleteness theorems of Gödel and an introduction to model theory), the formalization of the notion of algorithm and an introduction to recursive function theory and finally some mention of contemporary work concerning the independence of various statements from the common axioms of set theory.

The course will meet three times a week, one hour each session.

Enrollment limit: 32

Yvette Tenney\*

This course will be devoted to the careful study of three topics in cognitive development. The proposed topics are:

The development of the ability to read. Most of the reading on this topic will be drawn from a new book on reading by Eleanor Gibson and Harry Levin.

The development of mathematical thinking. Piaget's theories on this topic will be developed, and more recent work that tests and extends his ideas will also be studied.

The development of memory. The work of Piaget, Flavell, and others will be studied.

The emphasis in all three areas will be on theoretical research into the fundamental cognitive processes involved. Students who are interested in applications of cognitive psychology in education will be encouraged to try to close the considerable gap that still exists between current theoretical knowledge and the practical use of this knowledge.

The course is primarily intended for Division II students who are concentrating in cognitive psychology, developmental psychology, and education.

There will be two 1 1/2 hour meetings per week, devoted to either lectures or discussion. There will be written assignments for each of the three topics in the course.

Enrollment limit: 32

\*Ms. Tenney is joining the Language and Communication faculty (subject to the approval of the Board of Trustees) in the fall of 1973 as Assistant Professor of Cognitive Psychology.



## LC 216 RESEARCH APPRENTICESHIP IN COGNITIVE DEVELOPMENT

Yvette Tenney\*

In this course a small number of students will work intensively on one or two research projects in cognitive development. The research projects will be either part of the instructor's research on the development of cognitive strategies, or initiated by students in the course. The students will not be treated as research assistants, but as research apprentices, and thus will be given a thorough experience with all phases of research in cognitive psychology: the design, execution, statistical analysis, and interpretation of experiments, and the relationship of experiments to psychological theories.

The course is intended for Division II students who are planning to do research in cognitive psychology, cognitive development, or developmental psychology for their Division III projects. Division III students who have already begun their project might want to sit in on some of the meetings of the course.

The meeting time in the course will be divided between discussions and tutorials as needed.

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

Enrollment limit: 10

\*Ms. Tenney is joining the Language and Communication faculty (subject to the approval of the Board of Trustees) in the fall of 1973 as Assistant Professor of Cognitive Psychology.

Richard Muller

The participants in this course will form a production group to make five videotaped lessons in health education; these programs will reach a target population in the Model Cities neighborhood of Holyoke by way of the cable television system in that city, and by direct videocassette playback at a neighborhood clinic. We will attempt to evaluate the success of the programs and the systems for their delivery.

If the group is to function, certain skills will have to be present in its members. At least half-a-dozen experienced production students, two film people, a sound recordist, two writers, and one graphics person will be necessary. In addition, we will need people with interests or experience in the Model Cities neighborhood in Holyoke, people involved in the Health and Society program, a few people interested in communication research, and people who speak Spanish very well.

The instructor will function as the producer of the series, with other roles allocated according to the experience and intent of the participants.

We have applied for a grant to support production expenses under Title I of the Higher Education Act; if we get the grant, it will be easier to produce the desired results. We won't know until June whether or not we get money, but I am planning on doing the project with or without it.

Participants should be aware of the possibility that production phases of the project may continue in January, and that the evaluation phases will probably not be complete until May. Students who wish to continue on the project in January or the Spring Term, as independent study, will be encouraged to do so.

The course will meet once a week for a two-hour class, once a week for a four-hour studio session, plus some field trips.

Enrollment limit: 20

LC 218

## RESEARCH METHODS IN PUBLIC COMMUNICATIONS

David Kerr

This will be an intensive basic course and will be applicable to the social sciences in general, as well as to the more narrow area of public communications research.

By the end of this course, the student should:

- . be familiar with information sources related to public communications;
- . develop a working vocabulary of terms and concepts relating to research and the scientific method;
- . be familiar with the range of applicable research techniques such as survey, experiment, case study, historical analysis, content analysis;
- . be able to examine the relationship between research and theory;
- . be able to interpret and criticize a wide variety of research in the area of public communications.

No prior experience in research or mathematics is necessary. A relatively painless introduction to statistical methods will be part of the course.

This course should prove useful to students who plan to use research methods as a component in a Division III project. Students will practice designing research components utilizing the various techniques we study, and will be expected to design a detailed research project.

Readings: Ernest Bormann, Theory and Research in the Communicative Arts  
Fred Kerlinger, Foundations of Behavioral Research  
Blalock and Blalock, Methodology and Social Research

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

Enrollment limit: 32

## RATIONALITY

Michael Radetsky

Are people (ever) rational?  
 Ought they to be?  
 What is it to be rational?  
 What sorts of things can be called rational or irrational,  
 reasonable or unreasonable?

Such questions are of considerable importance, both in all major philosophical problems, including the problem of whether philosophy, as an analytic, investigative enterprise, is either possible or worthwhile, and in our general and personal thinking about how to cope with the world.

In this course, I would like to consider the nature of rationality at a fairly sophisticated level from a number of different directions.

1. Some people have maintained that human beings are "of a certain intellectual eminence compared with other terrestrial creatures" and man has been called the "rational animal." Are these equivalent? Is rationality a specifically human feature? Is it connected with the possession of a language, and if so, in what way?
2. Human beings have the ability to reason. What is the connection between "rational" and "reasoning"; between rational arguments, rational people, and rational actions? Words hang together and other words, and sometimes truth or knowledge is said to follow; when our thoughts and attitudes hang together, do actions follow?
3. Psychologists, sociologists, and anthropologists are often concerned with understanding and interpreting beliefs and actions. Must they concern themselves only with how beliefs arise, or does it make sense to ask if these beliefs (and actions) are rational? How does their rationality figure in explanations? And what could one take as a standard?
4. The irrational: what, if anything, can we say about it?

Readings: Bennett, Rationality  
 B. Wilson, Rationality  
 R. Edgley, Reason in Theory and Practice  
 Lewis Carroll, "What the Tortoise Said to Achilles"  
 Selected articles

The course will involve two 1 1/2 hour meetings per week, a couple of papers with an opportunity for class presentations, and a week or two of individual tutorials.

Enrollment limit: 32

## LC 221 CURRENT ISSUES IN THE PHILOSOPHY OF PERCEPTION

Christopher Witherspoon

Some eighteen years ago the British philosopher Anthony Quinton began an influential article in this way: "The problem of perception is to give an account of the relationship of sense-experience to material objects." That gives a fair characterization of the central concern of most traditional philosophers of perception; it is very inadequate if taken to depict the main concerns of more recent theory and research. The latter may be conveyed by some remarks from the introduction to Fred Dretske's Seeing and Knowing:

"My aim is primarily descriptive....My description concerns itself with those features of perception which have served, and continue to serve, as a touchstone for epistemological controversy. In a word, the topic is what we see and how we see in so far as the answers to these questions help us to get clear about what we know and how we know it....The philosophy of perception is not, as I see it, a quest for new data; it is rather an attempt to assimilate the data already available and to describe it in a way which reduces or eliminates the philosophical problems which it, or various descriptions of it, inspire."

The texts for this course will be Dretske's book and two collections of articles: Swartz, ed., Perceiving, Sensing and Knowing, and Sibley, ed., Perception: A Philosophical Symposium. A number of other articles and excerpts from books will also be read. Some familiarity with the more important theories, concepts, and arguments involved in traditional theorizing about perception will be presupposed; people who want to pick that up might look at Hirst, The Problems of Perception; Mundle, Perception: Facts and Theories; or Locke, Perception and Our Knowledge of the External World. (None of these will be discussed in the course.)

The emphasis in the lectures will be on problems concerning seeing: what it is to see, to see a particular "thing" ("things" including events, shadows, expressions, the sky, as well as what Austin called "moderate-sized specimens of dry goods"), to see that something is the case, to be able to tell just by what one sees that so-and-so, to see something as so-and-so; what it is for something to look so-and-so to someone, or for it to be to someone exactly as though they were seeing such-and-such; what it is for something to be visible, to occupy a portion of someone's "visual field," to be a "visual characteristic," etc. Some attention will be given to other senses and to related capacities such as being able to learn about the condition of one's body on the basis of feeling pains and other "sensations"; and to problems connected with the distinguishing of the senses from one another. A number of problems about causal theories and "information-flow" theories will be gone into in detail.

The course will meet for two hours twice a week. Prerequisite: L & C Division II standing or permission of the instructor.

Enrollment limit: 32

## SCHOOL OF NATURAL SCIENCE AND MATHEMATICS

PROGRAMS

NS 101	HOW THINGS WORK	- Herbert Bernstein, Director
NS 123	THE WORLD OF MATH	- David Kelly, Director
NS 130	PHYSICAL AND EARTH SCIENCES	- Kurtiss Gordon, Director
NS 150	NATURAL HISTORY OF THE CONNECTICUT VALLEY	- James Sears, Director
NS 160	BIOLOGY OF MEN AND WOMEN	- John Foster, Director
NS 170	A VERY BASIC INTRODUCTION TO CONCEPTS IN NATURAL SCIENCE	- Stanley Goldberg, Director
NS 180	SCIENCE IN THE PUBLIC INTEREST	- Brian O'Leary, Director
NS 240	DE RERUM NATURA	- Raymond Coppinger, Director

SEPARATE COURSES

NS 114 (NS 214)	THE METABOLISM OF ERGOSTEROL	- The Ergosterol Group, Lynn Miller, sponsor
NS 117 (NS 217)	THE CARVONE STUDY	- Lynn Miller
NS 194	ASTRONOMY FOR POETS AND PROFESSIONALS	- Courtney Gordon, Brian O'Leary
NS 212	CHEMICAL EQUILIBRIUM	- Nancy Lowry
NS 128 (NS 228)	THE CALCULUS WORKSHOP	- David Kelly
NS 229	CALCULUS TEACHING	- David Kelly

SEPARATE COURSES: (cont.)

NS 226	LINEAR ALGEBRA	- Kenneth Hoffman
NS 223 (LC 202)	LOGIC	- Jack LeTourneau
NS 125 (SS 167)	TESTING HYPOTHESES	- Michael Sutherland
NS 193	BOTANICAL ASPECTS OF HORTICULTURE	- James Sears
NS 127 (LC 138)	AUTOMATA THEORY	- Jack LeTourneau

## SCHOOL OF NATURAL SCIENCE AND MATHEMATICS

Curriculum Statement: 1973-74

The School of Natural Science and Mathematics has organized itself so as to offer a relatively small number of major programs, most of them with unlimited enrollments, with most of the individual courses subsumed under those programs. We have several reasons for doing so. The first is that we prefer to think in terms of areas of interest rather than specific topics; the topics will vary from semester to semester and are merely a means of entry into a broader area of intellectual inquiry. The second is that by having most curricular offerings part of some larger unit, involving several faculty, we achieve greater flexibility in responding to student interests and varying student enrollments. Units may be modified, coalesced, withdrawn, or new ones introduced on relatively short notice within the framework of a larger program. Thirdly, many of the programs have a central theme - a seminar or lecture series - whose purpose is to promote interaction between faculty and students, who have a range of disciplines, interests and perspectives. Thus students will have an opportunity to study narrower topics with some intensity and depth within individual curricular units, while at the same time discussing broader issues in a more general area of interest of which that particular unit is a part. Our hope thereby is to achieve a curriculum which is not only flexible enough to respond to the changing needs and interests of students and to the flow of contemporary events, but also cohesive enough to impart some sense of direction to a student's intellectual development in science.

To accomplish these objectives we have a teaching staff of scientists whose breadth of background leads to a flexible treatment of their instructional tasks. They devise modular units within courses; they work in small teams, co-operating on development and direction of School activities; and they support a variety of modes of teaching (lectures, seminars, problem workshops, laboratory research projects, field studies) with special emphasis on the independent effort of students.

Students registering to participate in a program may do so in two ways: If they wish to indicate an area of interest only, without committing themselves to some specific unit in a program, they should enroll under the at the outset to some specific unit in a program (NS 101, 120, 130, etc.). If on the other hand their interest is in some specific unit within that program they may register for the specific course number of that unit (eg. NS 109, Waves, rather than NS 101). Students registering for specific units, particularly minicourses, should recognize the possibility that some change may occur before a semester actually begins and should therefore consult program bulletins shortly before the term opens for details on program content and its teaching staff.



In addition to the major programs we also offer some courses which either are of service to more than one program or are not in any compelling way related to one of them in spirit or emphasis. These courses are listed separately.

A word about divisional status. While most of our offerings have open enrollments, unless explicitly stated otherwise, it should be understood that our expectation in Division II courses (200 series) is not the same as it is in Division I courses (100 series). Division I students who wish to register for Division II courses will be expected to function with the same maturity and independence normally expected of Division II students. They would therefore be wise to consult the appropriate instructor before registering. Division II students registering for Division I courses will generally be expected to carry some extra responsibility for the conduct of the course. The nature of that responsibility is explicitly stated in some of the course descriptions.

Finally, we would like to emphasize our special concern for students who are uneasy about plunging into courses in science, because of prior difficulties with science courses, weak high school background, or whatever. We have chosen not to separate such students out of the mainstream of our Division I courses, but rather we hope we have designed a curriculum which is flexible enough to respond to their needs. We ask only that such students identify themselves to us and make their needs known.

NS 101

HOW THINGS WORK

Herbert Bernstein, Director

This program focuses on the practical side of science. Some of the activities lead you from practical curiosity into natural science; some apply science to your everyday life. Many of the courses and activities listed are suitable for students with a weak background in science. See the course descriptions below.

The unifying core will be lectures in the course entitled How Things Work. In addition to the core, a student may take one or more mini-courses, a term-long course, or an independent project. If you opt for the latter, merely sign up for NS 101. Otherwise, sign up for the activity you want. If you need any more information, come and speak to the course director.

Term-Long Courses:

NS 101

How Things Work  
Bernstein

Have you wondered about the mechanical things we all use? Do you wish you knew how a TV, a car, or a record player works? Or are you just curious about the phenomena around you -- sunsets, rainbows, autumnal color changes? This course is designed specifically for those with little background in science. Qualitative, verbal explanations for the natural and artificial phenomena of our world are the subject matter. We might use a little arithmetic, but if so it will be as a tool, chosen by the student, as with all other tools -- library books, reference works, tables of information and definitions, etc.

One hour of lecture twice weekly.

NS 102

Chemistry for the Consumer  
David Gay

This course is designed to suit the student with a minimum of previous scientific background. Emphasis is placed on the understanding of chemical processes which relate to our lives and needs: synthetic detergents and plastics, food science, medicines, automotive products, cosmetics, air and water quality (pollution), corrosion, etc. It is hoped that by moving from the familiar to the less familiar, the interest of the student will be captured and held.

A strong emphasis on problem solving and laboratory work. Reading of popular literature on these topics will be a must. At least one independent research will be attempted. This may be done individually or in groups.

## HOW THINGS WORK (cont.)

Term-Long Courses:

NS 103

Brain and Behavior  
Krieckhaus

We shall discuss, first at a quite elementary level, some basic principles and information about the structure and function of the nervous system, particularly of the brain. We will go on to discuss the relationship between the various aspects of neural tissue and h/w this tissue allows the organism to better exploit his/her ecological niche. Later, hopefully at a more sophisticated level, we shall consider various problems of the relationship between the brain and behavior such as that involved in understanding memory, guilt, purpose, and God.

NS 104

Useable Mathematics  
Ken Hoffman

This course is designed for students who want to improve their mathematical proficiency and comprehension. It will consist of a lecture one evening a week with an additional two or three hours of workshops during the day. A couple of Division II and III students will work with the class as tutors, available to help any students who need intensive work in specific areas. The evening lectures will focus on a number of topics in elementary applied mathematics and will be open to anyone wishing to sit in.

Some possible topics for the evening lectures are:

1. How to use a framing square and why it works,
2. Navigation,
3. Graphing: how to read a graph, different kinds of graph paper, how they work and what they are good for; non-calculus curve sketching,
4. How to tell time by the stars,
5. Surveying,
6. How a slide rule works,
7. Elementary statistics,
8. Introductory computer programming.

## HOW THINGS WORK (cont.)

Mini-Courses:

NS 106

How an Automobile Engine Works  
Michael Sutherland

This module will offer the opportunity to discuss, dismantle and rebuild a VW engine. The basics of internal combustion engines will be demonstrated both in lecture and through student participation in the machine shop work.

Four week module limited to 10 or fewer students. Will be repeated during term.

NS 107

Electronics for the People  
Everett Hafner

Three consecutive modular labs. Student may take one, two or all three, but the later modules will depend on the earlier ones.

1st month: Principles of DC and AC circuits. Theory and operation of basic test instruments. Characteristics of resistors, capacitors, inductors, transformers, bridges, filters.

2nd month: Characteristics of vacuum tubes, diodes, transistors, operational amplifiers, integrated circuits.

3rd month: Design, construction, analysis, test and repair of electronic systems.

NS 108

Alka-Seltzer, Salad Oil, and Salt on Wintery Roads  
Nancy Lowry

Did you ever wonder why coke fizzes when you open the bottle? Why oil and gasoline "float" on oceans and ponds? Why DDT "accumulates" in animal fatty tissue? By learning the answers to these questions and many others, students will begin to understand chemistry. Especially for students with no chemistry background. Two 2-hour lab-classes per week. One month module (2nd and 3rd months).

## HOW THINGS WORK (cont.)

Mini-Courses:

NS 109

Waves  
Everett Hafner

Independent modules offered in 2nd and 3rd months.

2nd month: Mechanical and electronic production of sound. Detection, recording and reproduction. The nature of hearing. Physics of music.

3rd month: Generation, propagation and detection of light. Principles of photography and holography.

NS 136

The Photographic Process  
Stanley Goldberg(see also  
Physical & Earth Sciences)

This is an introductory course which will deal with technical elements in photography. Subjects covered will include photographic emulsions, densitometry, sensitometry, characteristic curves, zone system, introduction to color films and processes. There will be laboratory-like projects and the opportunity to standardize your own photographic technique. No prior experience with photography is needed. You will need a camera and film.

Two 1½ hour meetings per week.

David Kelly, Director

Students may expect to encounter problems in mathematics and mathematization 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 Room (SB 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 fall semester:

#### The Book Seminars

Many important mathematical subjects lend themselves to semi-independent study. The following format will be tried: in consultation with each other and a staff member, small study groups (about five students) will select a text for joint study, set a syllabus, and meet together regularly both with and without the instructor.

The following topics may be handled efficiently in this manner:

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 17:17 Theorems

A theorem is presented at 5:17 on each prime-numbered class day.

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 Natural Science and Mathematics, and
- . teaching and tutoring at Hampshire and elsewhere in the World of Mathematics.

NS 130 (NS 230)

## PHYSICAL AND EARTH SCIENCES

Kurtiss Gordon, Director

The course offerings in this group are intended to appeal to students who have already developed a familiarity with scientific modes of inquiry, and whose continuing interest in the physical and earth sciences requires a more quantitative, content-oriented approach. Several of the courses specify prerequisites. Students who feel they possess equivalent backgrounds, but have not had the particular courses, should talk with the instructor of the desired course before registering. We expect this list of courses to be augmented by offerings from new faculty members (in particular by a chemistry course). Courses with insufficient enrollment will not be taught.

Five-College Astronomy Courses

ASTFC 22

Introduction to Astronomy and Astrophysics

## Division I or II

For astronomy majors and others interested in a quantitative introductory course. A description of our present knowledge of the universe and the means by which this knowledge has been obtained. The course considers the properties of the solar system, individual and multiple stars, interstellar matter, our galactic system and external galaxies. Two 90 min. lectures and one two-hour lab per week. Requisite: some knowledge of physics and calculus is helpful.

Professors Manchester and Strong - at U. Mass.

ASTFC 31 Space Science: Topics of Current Astronomical Research

## Division II

Within the past decade, remote sensing and in situ measurements from space vehicles have resulted in tremendous increases in our knowledge about the terrestrial planets. With our eyes now opened up to the Moon and Mars and soon to other planets we suddenly find ourselves confronted with phenomena having no clear terrestrial analogue; for example, extensive impact cratering, enormous circular basins, mascons, chaotic terrain, dry ice polar caps, planet-wide dust storms, and seasonal changes in the brightnesses of dark areas. On the other hand, results recently obtained from Mariner 9 show us that at least portions of the Martian surface are geologically active and Earthlike. In the Mariner 9 pictures we see huge canyons and calderas, as well as evidence that liquid water flowed in rivers in geologically recent times. Profusely illustrated with slides, this course will go into the exact nature of these phenomena and possible implications about planetary evolution. Emphasis will be placed on the results of the Mariner 9 mission.

NS 130 (NS 230)

## PHYSICAL AND EARTH SCIENCES

ASTFC 31

Space Science (cont.)

For background, Moon and Planets by Hartmann and The View From Space: Photographic Exploration of the Planets by Davies and Murray are suggested. Both were published in 1972 and are available in the Hampshire College bookstore. Also included will be readings on Mariner 9 results from Science, Scientific American, and Icarus.

This will be a Hampshire Division II course, but Division I students with a small amount of background in astronomy, physics or geology can also participate with the consent of the instructor.

Professor O'Leary - at Hampshire.

ASTFC 37

Astronomical Observation

## Division II

An introduction to the techniques of gathering and analyzing astronomical data. Subjects to be covered depend somewhat on individual interests: photography, calibration of photographs; photometry; spectroscopy and classification of spectra; determination of stellar temperatures, masses and radii; basic radio astronomy; introduction to telescope design and use; the astronomical distance scale. Two 90 min. lectures and one two hour laboratory per week. Requisite: ASTFC 22 or permission of instructor.

Professor Seitter - at Smith College.

ASTFC 43

Astrophysics I

## Division II or III

Basic topics in astrophysics. Equilibrium configurations and the physical state of stellar interiors. Polytrope models. Interaction of radiation and matter and radiative transfer. Radiative and convective equilibrium. Study of opacity. Two 90 min. lectures per week. Requisite: ASTFC 22 and Basic Physics II (Electricity and Magnetism) or permission of instructor.

Professor Harrison - at U. Mass.



## NS 130 (NS 230) PHYSICAL AND EARTH SCIENCES

Earth ScienceNS 131 The Evolution of the Earth  
John Reid

## Division I

During the last six or eight years, the idea that the continents have slid about the earth's surface on thin plates of crust whose collisions and partings produce the earth's mountains, earthquakes, mineral deposits and volcanic activity has come to be accepted as "fact". Much of the geology of the Connecticut Valley is the result of the stretching of the continent which took place when Africa and North America parted company about 200 million years ago. The course will begin with a look at the plate tectonics theories and the possible mechanisms which may cause the plates to drift, and then with an emphasis on field investigations, examine the local geologic record for evidence not only of the most recent continental separation, but of earlier collisions as well.

One 1½ hour class plus one afternoon session per week.

NS 232 Chemical Equilibria in Natural Water Systems  
John Reid

## Division II

A detailed investigation of the chemistry of ocean and fresh water systems, the course will begin with a review of chemical thermodynamics, then use this information to examine the dependence of the solubility of particular chemical species upon temperature, pH, Eh, and other dissolved material. Laboratory work will center around the use of atomic absorption spectrophotometry, and look in part at the question of the paths followed by environmental pollutants, including the heavy metals in natural water systems.

Two 1½ hour classes per week.

NS 233 The Petrology of Igneous and Metamorphic Rocks  
John Reid

## Division II

A field and laboratory oriented course intended to delve more deeply into the study of the earth's crustal evolution than in Division I courses. Experimental work will center around the use of the petrographic microscope and the atomic absorption spectrophotometer. Introductory chemistry is a desired prerequisite.

Two 1½ hour classes per week.

NS 130 (NS 230)

## PHYSICAL AND EARTH SCIENCES

Physics

NS 134

Energy & Entropy  
Everett Hafner

## Division I

A reading course based on the laws of thermodynamics. What is heat? Why can't it flow from cold bodies to hot? Or can it? Why are perpetual motion machines impossible? Or are they? If energy is "conserved," why is there an energy crisis? What is "thermal pollution" and how can we clean it up? Or can we? These questions and others help us to learn thermodynamics in the context of tangible problems. The course requires no prior knowledge of physics, and no mathematics beyond elementary algebra.

NS 235

Electricity and Magnetism  
Herb Bernstein

## Division II

The second in a series of three elementary physics courses. Prerequisite for this course is one term of college physics. (Basic Physics, taught in the spring, is recommended as the background. That course has a calculus prerequisite.) E & M studies the special theory of relativity, and the equations of the electric and magnetic fields. The notions of relativity and of a vector field are our predominant themes - the emphasis of the course is mathematical and theoretical.

Meets for two hours twice a week, plus a math section to do vector calculus.

NS 136

The Photographic Process  
Stanley Goldberg

see also  
"How Things Work"

## Division I

This is an introductory course which will deal with technical elements in photography. Subjects covered will include photographic emulsions, densitometry, sensitometry, characteristic curves, zone system, introduction to color films and processes. There will be laboratory-like projects and the opportunity to standardize your own photographic technique. No prior experience with photography is needed. You will need a camera and film.

Two 1½ hour meeting per week.

NS 130 (NS 230)

## PHYSICAL AND EARTH SCIENCES

History of Science

NS 137

Newton  
Everett Hafner

## Division I

A study of his life, emphasizing his contributions to mathematics, astronomy, mechanics, optics and theology.

NS 138 (NS 238)

The Copernican Revolution  
Stanley Goldberg

## Division I or II

At the Division I level, this course is intended to deal with the following questions: Why is it that people believe that the earth goes around the sun in spite of the fact that all of our senses suggest that it is the sun and not the earth that is moving? Were the people who used to believe that the earth was fixed at the center of things stupid or silly? Are we being silly? Did we get smarter than they were? How did we decide where we are in the physical universe and what other things were out there? The mathematical knowledge needed for this course is extremely small. However, one must be prepared to make the attempt to grapple with simple mathematical concepts in algebra and geometry. We will try to do a lot of simple astronomical observations which require no prior experience and no knowledge of the night sky. We may even build some simple instruments out of sticks, and stones, and strings.

At the Division II level, in addition to regular class meetings, there will be a weekly seminar on the history of the Copernican Revolution which will assume some degree of sophistication with mathematics and physical science at the Division I level. In addition, Division II students commit themselves to tutoring Division I students both with regard to the concepts of the course and with regard to the mechanical aspects of problem solving. At Division II this will be a course in the history of ideas and is intended for Natural Science students and students in the history of ideas who are willing to delve into the subject, with direction, in an independent fashion.

Three one hour meetings per week.

Mathematics for Physical Science Applications

NS 139

APL  
Everett Hafner

## Division I

Recurrent modular lab. Applications of APL to problems in elementary mathematical physics, and to the modeling of complex natural systems.

NS 150

## NATURAL HISTORY OF THE CONNECTICUT VALLEY

James Sears, Director

In the foyer of the Marine Biological Laboratory, Woods Hole, is a statement in large script by Louis Agassiz that reads "STUDY NATURE, NOT BOOKS". This is the philosophical principle of this program. The Connecticut Valley offers a wealth of natural history to the student who is willing to look for it. The aim of the program is to introduce concepts of natural history to the beginning student through lectures and field observations. This is a Division I program and no previous experience in sciences is necessary.

The program consists of a full term of core lectures and field studies in natural history of the Connecticut Valley and several one month mini-courses in areas of specific interest. Students interested in the program should sign up for the core lecture (NS 150) and in addition, if you wish to study a specific area in more detail, you should also sign up for the mini-course of your choice under the appropriate mini-course number. The core lecture and field study will meet for two, 1½ hour periods each week for the full term.

NS 150

Natural History of the Connecticut Valley

Jim Sears, John Reid

A testimony of the geologic history (from the age of the dinosaurs through the last of the glacial periods) abounds in the environs of the Amherst area. The old stone walls that are now overgrown by woodlands give testimony to white man's settlement and early farming efforts. We will study the geologic history, history of agriculture, plant communities and succession, and man's interactions with his natural environment. American literature relating to man's colonization and life in New England will be included; what better place to read Frost's "Mending Walls" than on an old stone wall.

Students will find that David Smith's course "The American Literary Landscape" (NSA 201) deals with similar readings. There will be informal interactions between his and our course and students may benefit by taking them simultaneously.

## NS 150 NATURAL HISTORY OF THE CONNECTICUT VALLEY

Mini-Courses:NS 151 Field Botany  
Jim Sears

An introduction to plant systematics and identification based on field observation and laboratory study. Students will become familiar with the local flora of various habitats and will be expected to make plant collections. Offered during the 1st month. Class will meet 3 hours/week.

NS 152 Mushrooms  
Lou Wilcox

This is a field oriented course aimed at introducing students to the ecology, identity, uses and edibility of mushrooms. Offered during the 1st month. Class will meet 3 hours/week.

NS 154 Geologic Evolution of a Stream  
John Reid

This mini-course will last for one month beginning at the outset of the fall term. It will be a dominantly field oriented investigation of the ways in which a river and its associated landscape evolve, using the Fort River as our example. By geologic standards it is a very new river, being less than about 13,000 years old (it formed since the last ice age), so that it offers a uniquely good opportunity to study not only how, but also over what sort of time scales a river's course may evolve. Class will meet 3 hours/week.

NS 160

## BIOLOGY OF MEN AND WOMEN

John Foster, Director

The courses listed in this program are essentially independent of each other. However they are grouped together because of their common concern with Homo sapiens as a species, as an organism and as a social animal interacting in important ways with others of the same species and with the surrounding environment. Although the courses are independent they will be scheduled so that once a week they will meet at the same hour. This will provide regular opportunity for joint meetings to discuss a common topic, to allow students from one course to attend special sessions of another, to discuss a common topic or hear a guest speaker, and in general to promote interaction among the courses.

NS 161 Human Biology I: Physiology, Biochemistry and Medicine  
John Foster, Al Woodhull, Linda Slakey, Louis Wilcox

The human condition can be described in a variety of ways: biological, psychological, sociological, cultural and political. Each of these points of view contributes to and is informed by the others. We therefore do not pretend to be able to treat the question of human biology in isolation, but to make it part of a more college-wide effort to cover many aspects of health, illness, growth and development of human beings.

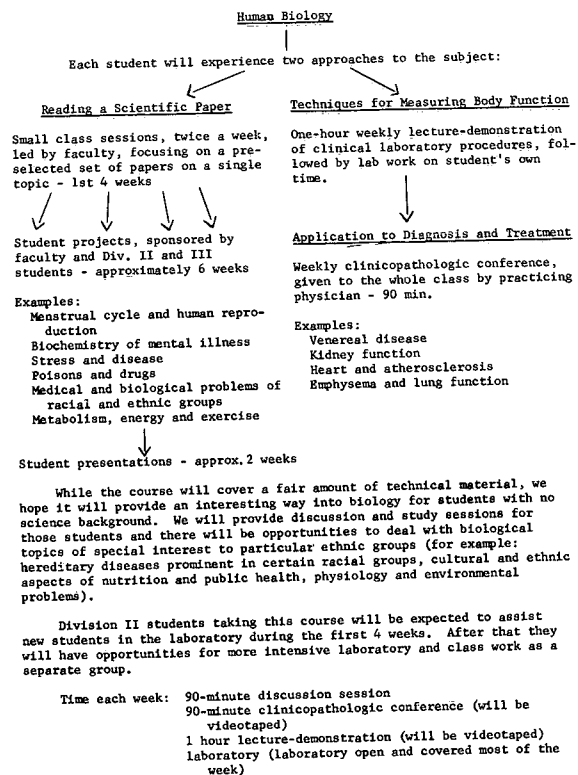
The first semester, which is intended primarily as a Division I course, will contain the following elements:

Serious study of biology as related to man as an organism. This will begin by careful study of a group of research papers dealing with a single topic, both as sources of information and as examples of the scientific process at work. After the first four weeks the class will break into smaller groups, each of which can pursue a topic of their own choosing for the rest of the semester. Those groups whose work goes well will have a chance to present their findings to the rest of the class.

Laboratory experience with diagnostic procedures used in the diagnosis and treatment of disease: blood sugar, urinalysis, serum cholesterol, electrocardiograms, etc. The laboratory will be open and available continuously for students who want to learn these techniques.

Weekly discussion of case material with a practicing physician, illustrating the use of these diagnostic procedures and learning about medicine as an applied science based on physiological and biochemical principles.

The course may be diagrammed as follows:



NS 160

## BIOLOGY OF MEN AND WOMEN (cont.)

Full-Term Courses:

NS 162

The Nutritional Ecology of Man  
M. Schorin, students, and Lynn Miller

The aims of this course are:

- . to educate people about why their bodies need food, what kinds of food they need, and how they use what they get.
- . to help people to understand the importance of food to their health, to realize that good nutrition is essential for growth and maintenance of the body and mind, and to see that diet is an important part of preventive and therapeutic medicine.
- . to make people aware that good nutrition involves much more than knowing what foods are best for them, but also depends on the means of food production and distribution, on income, on culture, on family habits and upbringing, on taste and on advertising.
- . to see the long-range effects of the amount, content and quality of foods on the development and behavior of individuals, on the life style and survival of communities, on the use of the land and its resources, and on the history and evolution of man.
- . to teach people how to go about finding information, to observe and talk about problems, to handle materials critically, and to work together.

The course will include lecture-discussion classes for four hours a week during the first four weeks on problems of practical nutrition ranging from biochemical individuality to processed foods. Discussion groups will meet two hours a week with articles and chapters assigned for reading and discussion during the second four weeks. Group projects during the course will be encouraged. Possibilities for projects include surveys of commodity foods, of minority nutrition problems, of attitudes toward food, investigations of FDA nutrition labeling of foods, of the bodily need and use of each vitamin, of natural foods, and of legislation concerning food processing, fertilizers, advertising and food enrichment.

NS 153  
SS 111Biological and Cultural Bases of Sex Differences\*  
Louise Farnham

\*see description under Social Science 111.

NS 164  
SS 138Sociology of Health and Illness\*  
Robert von der Lippe

\*see description under Social Science 138.



NS 160

## BIOLOGY OF MEN AND WOMEN

NS 169  
(SS 128)Bio-social Human Adaption:  
Case Studies

Raymond Coppinger and Philip McKean

The course will focus on understanding human evolution and behavior, taking account of two critical variables: nature and culture. We will be asking how a scientist tries to sort out the biological and socio-cultural dimensions in the human species, and will look at several case studies to examine this relationship between human groups and their environment and culture. Specifically, we will study in detail the Balinese of Indonesia and the Eskimos of the Arctic.

A sub-theme will be an attempt to use films extensively, showing that they are not "value-free", but invested with a "vision of reality" by the filmmakers, producers and the editors. We hypothesize that ethnographic films are at least as much an indicator of the problems and preoccupations in the culture of the film-makers as in the culture being filmed. We expect to view and discuss several dozen films.

We will also examine a number of "pop-anthrop" books, such as those of Ardrey and Morris, which purport to "explain" human behavior, and ask not only what criticisms of their theses are appropriate, but why these books are written and read with such enthusiasm in our contemporary culture.

The course will meet once a week for two hours plus an hour tutorial.

## A VERY BASIC INTRODUCTION TO CONCEPTS IN NATURAL SCIENCE

Stanley Goldberg, Director

This offering will be comprised of three one hour lectures per week, for six weeks. It is intended for people who have little or no background in physical science. Those who identify themselves as wanting to avoid physical science completely and yet face the unhappy prospect of having to devise a Division I examination in physical science are invited to give it a try. We make no promises. We have a hunch that this may be a vehicle for preparing a Division I examination for a wide range of interests and talents.

The lectures will be grouped around a set of concepts which are common to chemistry, physics and biology and include: measurement, mass, energy, momentum, the laws of heat, and the atomic theory. The lectures will be from an historical perspective.

During the six weeks of lectures, Division II and III Hampshire students will serve as tutors, resource people and will run problem oriented seminars. At the end of the six weeks of lectures, a series of modules on various topics in science will be available through which students may build individual Division I examinations. Possible topics for these modules are: the gene as atom of heredity, kinetic theory of gases, Don Juanism and science, and vision.

These lectures are intended to serve a large number of students. This is an experiment. Can we effectively utilize the large lecture format and subvert it to the aims of the Hampshire program?

The lectures are not only intended for the entering student but are also aimed directly at those 2nd and 3rd year Hampshire students who have avoided involvement with physical sciences and have put off the seemingly unenviable task of finding a suitable topic for a Division I examination.

How is it that there are people in this world who love doing natural science and think that it is fun!??? We hope to help you come to terms with this seeming paradox. And we intend to do so without compromising the subject matter of the sciences.

NS 180 (NS 280)  
 SS 139 (SS 231)

# SCIENCE IN THE PUBLIC INTEREST

Brian O'Leary, Director

Governmental agencies regularly make decisions of enormous economic, social and environmental consequence. How wisely these decisions are made depends in part on the quality of information available to those who make them. Yet the structure of the decision-making process may tend to encourage the presentation of partial or distorted information. Vested interests and promotional bias among leaders of government and industry have often led to enormous projects which are of questionable value and may have detrimental environmental effects. This situation has created a need for more participation among scientists, lawyers and other citizens to act as adversaries in presenting to decision-makers the costs of such programs and in suggesting alternative courses in which priorities could be shifted more toward the public interest.

The first four or five weeks will consist of a concentrated series of lectures with student projects to follow. The Energy Crisis and Solid Waste Disposal in the Pioneer Valley, and some other topics will be covered this term.

A Wednesday night lecture series on Science in the Public Interest will bring to the campus a group of distinguished visitors whose experience and qualifications bear on the questions of the program. They will deliver lectures, lead discussions and contribute to our planning for the future of the program.

NS 181 (NS 281)

## The Energy Crisis Brian O'Leary, Everett Hafner

The energy crisis is a well-publicized but poorly understood issue of mammoth proportions. Not only are the technological problems challenging, but the interactions among the various agencies, utilities, industries, private groups and individuals form a matrix containing a staggering number of interdependent variables. Two approaches could be attempted: one would be to size the problem by looking at the whole picture and asking which questions and issues ought to be addressed; the other would be to study one or two very well-defined problems with a small number of influential variables.

The latter approach is more likely to be effective both as a course and as a plan of action. Since many significant decisions about nuclear power generation are forthcoming, we will concentrate on one or more of the following topics:

- the safety of nuclear fission reactors including breeder reactors, particularly the problem of ineffective emergency cooling systems.
- difficulties in the disposal of radioactive waste: e.g., the case of Lyons, Kansas which lies over some abandoned salt mines and wells and perhaps a major earthquake fault.

## SCIENCE IN THE PUBLIC INTEREST

NS 181 (NS 281)

The Energy Crisis (cont.)

- looking at efforts to develop alternative power sources, including R & D in nuclear fusion, solar energy and geothermal energy. Are fission reactors over-promoted? As to fusion reaction, issues may include: Is adequate money available for R & D? Will promotion of breeder reactor technology become an obstacle to further fusion development? What steps can be taken to buy time for the development of fusion reactors (e.g., more effective pooling of energy resources and lower loss transmission)?
- protection against the theft of fissionable materials; thefts might lead to the making of A-bombs and a plutonium black market.

NS 182 (NS 282)

Solid Waste and Sewage Disposal in the Pioneer Valley:  
the Plans and the Reality

Lynn Miller

Students in this course will get involved with me in my attempts to understand why the people of the Pioneer Valley (and other places) have neglected their sewage and solid waste disposal problems for so long, what the plans for remedial action are, and what hope there is for the future.

To do this, we will visit some of the existing facilities, talk to people about them, read engineering reports, listen to various public officials and private citizens - in short - attempt to behave like educated citizens. Then we will read about various remedies and solutions planned and attempted elsewhere and try to fit them to the local scene.

Although students in this enterprise need no previous experience they should be prepared to write a summary of their findings, to attempt to propose solutions to the problems, and to look for ways to publicize these solutions.

One 2 hour meeting each week plus many field trips.

NS 240

## DE RERUM NATURA

Raymond Coppinger, Director

The biologist wants to understand life, but life, as such, does not exist; nobody has ever seen it. What we call "life" is a certain quality, the sum of certain reactions of systems of matter, as the smile is a quality of reaction of the lips. I cannot take the girl in my right arm and her smile in my left hand and study the two independently. Similarly, we cannot separate life from matter and what we can only study is matter and its reactions. But if we study this matter and its reactions, we study life itself.

A. Szent-Gyorgi,  
The Nature of Life

We adopt this point of view as a framework for this course. Thus we offer a series of courses and mini-courses (4 week) which are intended for the serious science student. In no way should these courses be construed to be introductory to science but rather introductory to "reactions of systems of matter" and are therefore aimed at the scientifically more mature student. Each course is guided by an instructor who provides an experience reflecting his or her own scientific life style: field trips to collect life material, intensive laboratory work or abstract theory. Each unit is designed to be more or less self contained; a student may participate in those that interest him, but should be well aware of prerequisites that some units carry.

Core: The course is accompanied by a series of weekly lecture-discussions led by the teaching staff. These meetings will be devoted to bringing a certain unity to what would otherwise be a loose collection of topics. Scientific method, philosophy of science, biographies of eminent scientists and the current practice of science will be areas of concentration in the core. In the past these discussions have centered around some theme which is of mutual interest to teachers and students.

Full Term Courses:

NS 241

Organic Chemistry in 3-D  
Nancy Lowry

This course involves a study of the three-dimensional aspects of carbon compounds. The first four weeks are devoted to examining the structure of molecules; the main questions asked are "what holds atoms together to form molecules, and what are the consequences of their arrangement in space (structure, isomerization, conformational analysis)." The next four weeks introduce the student to considerations of interactions of molecules with each other (mechanisms). During the last four weeks additional organic reactions are studied.

The course is heavily oriented toward biological molecules, processes and mechanisms. Open to all Division II students or with permission. There will be a section of this course for students who have previous experience in organic chemistry. Will meet 3 class hours per week (TBA) plus optional lab time.

NS 240

DE RERUM NATURA (cont.)

Full Term Courses:

NS 242

Neurophysiology Lab

Merle Bruno, Ann Woodhull, Betsy Walker, Denise Cormier, Cathy Cohen

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.

Division II (interested Division I students should see an instructor). One full day and one half-day per week.

NS 243

Twelve Weeks of Biochemistry

John Foster

Biochemistry covers such a range of materials that most courses make one of two mistakes: they either try to cram everything in, producing an information overload that obscures the underlying order of biochemical systems, or they become a superficial survey that leaves the student feeling that he or she does not understand any phase of it really well. In approaching the subject here I would like to do four things.

1. To establish a baseline familiarity with the range of materials covered by the field of biochemistry. This we will do by reading right through one of the shorter texts in the first 3 weeks.
2. Concurrently, to equip members of the group with some basic investigative skills by means of a short period of routine laboratory exercises, such as the measurement of an enzyme activity in some tissue, or the isolation of a biochemical compound from living material.
3. To assess the interests of the group and choose a few topics according to those interests for more serious study during the rest of the semester. For this we will draw on the research literature and on essays written by leaders in the field. Emphasis will be on fundamental biochemical mechanisms, concepts which can be applied later on to any subject in the field.
4. Again concurrently, to look more intimately at some life processes in the laboratory which are of interest to the group. Emphasis will be on the design of the experiments, careful attention to environmental conditions (temperature, pH, ionic composition, etc.) and careful analysis (choice of aliquots, timing, sensitivity of methods, precision and accuracy, etc.).

This course is intended for Div. II and III students and will assume that they have picked up a working knowledge of organic chemistry. One 2 hr. seminar plus at least 1 full day in lab. per week.

NS 240

DE RERUM NATURA (cont.)

Full Term Courses:

NS 244

Quantitative Biology  
Albert Woodhull

Physicists and chemists often refer to their own fields, in which sophisticated mathematical methods are the order of the day, as the "hard" sciences, as opposed to the "soft" sciences such as biology. However, biologists now use mathematical techniques similar to those of physics and chemistry. From the inner world of the body studied by the physiologist to the complex outer world studied by the ecologist, quantitative methods make possible an understanding of life processes that will remain hidden from the biologist whose only method is observation.

Many biologists first turned to biology because it seemed a subject in which interesting and useful secrets of nature could be learned without using mathematics. For such people this course is offered as a way to go beyond simple observation. We will consider how to formulate mathematical models of biological systems, and how to use such mathematical models to predict the behavior of the systems. The mathematical tools used will include calculus and differential equations. Previous knowledge of these subjects, or mathematical sophistication of any sort is definitely not required for the course.

The methods that will be taught in this course can be applied to a variety of problems. Some examples that will be considered during the course are: What determines the rate of growth of a population of bacteria? How can a potentially dangerous drug be injected to make the concentration in the body neither dangerously high nor uselessly low? What determines the speed of biochemical reactions? How are hormone concentrations controlled by the body?

Three 1 hour discussion groups per week.

NS 245

Comparative Neurophenomenology  
E.E. Kriekhaus

Discussion of the body-mind problem, drawing from sophisticated biological and philosophical sources. Some history of the body-mind problem; its relevance to science and philosophy today.

G geared to Division II level students. To meet 4 hours a week.

NS 240

DE RERUM NATURA (cont.)

Mini-Courses: (4 weeks each)Period I

NS 246

The Lives of Yeasts

Lynn Miller

Students in this course will be introduced to the yeasts, a group of lovely microorganisms incredibly useful to us, and to microbiology, a discipline that makes yeasts and other things still more useful, in a research project that requires no previous experience and which could be lots of fun (as well as lots of work).

We will attempt to find, isolate, and characterize the kinds of yeasts found on apples in our orchards. We will try to determine what they are doing there, which ones, if any, make wine from cider, and which of those make the best wine.

Amazingly enough, almost nothing has been published on how to make apple wine, and still more amazing (in this area) few people do make it, although making apple wine is both legal and edifying. I hope that some of our results will be publishable and some will be drinkable.

We will meet two afternoons a week for 4 hours and will have to spend, in smaller groups, at least 2 more hours each week in preparation. Individuals wishing to continue this project after the first four weeks will be encouraged to do so.

Text: Pfaff, Miller, and Mraz, The Life of Yeasts.

NS 247

Beanbag Genetics

Lynn Miller

An introduction to genetics for students with no previous exposure. We will listen to, watch, and discuss a series of 12 films by Curt Stern, one of the foremost geneticists of this century and a popular lecturer at U. of Cal., Berkeley

Students will be introduced to the elementary mathematics of probability and analysis necessary to "do" genetics. We will work various set problems and discuss the limitations of these techniques when dealing with the real world.

Interested students may continue the Carvone study, begun by other students two years ago, a beginning at understanding the genetic control of the ability to smell certain compounds by humans.

The class will meet four times a week for an hour each time. Students taking this and one of the other minicourses in genetics should be well prepared to develop a Division I natural science exam.

Text: I.M. Lerner, Heredity, Evolution and Society.



NS 240

DE RERUM NATURA (cont.)

Mini-Courses:Period I

NS 248

Animal Behavior I  
Ray Coppinger

All (almost all) the fun books in Animal Behavior. Plus some selected readings. This course is meant to be motivational in intent and to provide the background to Animal Behavior II and III.

15 hours reading/week, two classroom-tutorials/week, plus movies and demonstrations.

NS 249

Animal Behavior III  
Ray Coppinger

Only for the most accomplished students of Animal Behavior. Total concentration required. Students will pick a topic from Hindi's Animal Behavior and review literature and theory which led to the author's conclusions. Student will also be required to offer imaginative alternate hypotheses and rewrite the section of Hindi's book based on his work. Class meetings and tutorials as required.

Period II

NS 250

Human Genetics  
Lynn Miller

Students should have had some previous introduction to genetics (high school or Beanbag Genetics should be sufficient.) This course will concentrate on several well understood case studies in human genetics. We will watch and discuss a series of films on human genetics, read some of the original literature, on those topics, and discuss the implications of our increasing knowledge on current proposals about genetic screening and counseling.

Interested students may continue with the Carvone study, begun by other students two years ago, a beginning at understanding the genetic control of the ability to smell certain compounds by humans.

The class will meet four times a week for an hour each time. Students taking this and one of the other minicourses in genetics should be well prepared to develop a Div. I natural science exam.

Text: I.M. Lerner, Heredity, Evolution & Society, plus selected readings.

NS 240

DE RERUM NATURA (cont.)

Mini-Courses:Period II

NS 251

Genetics of Evolution

Lynn Miller

This course is designed for students interested in current ideas of the mechanism of evolution. We will read and discuss Dobzhansky's Genetics of the Evolutionary Process. Much of our time will be used to become familiar with some of the mathematical concepts that have been used to describe evolutionary processes. We will discuss as well theories other than the presently accepted Neo-Darwinian concepts of microevolution.

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

Text: Dobzhansky, Genetics of the Evolutionary Process.

NS 252

Animal Behavior II

Ray Coppinger

A seminar which will delve into the different approaches of the American psychologist and the European ethologist in the development and understanding of Animal Behavior. Students will be required to debate issues in a weekly meeting. 15 to 25 hours of reading/week.

Period III

NS 253

Informational Macromolecules

Lynn Miller

Students in this course will read a series of original research papers on the discovery of the biological roles of DNA and RNA, and on the biosynthesis of proteins. Students should have had previous exposure to genetics or chemistry or both if they are to get the maximum benefit from this course.

The objects of the course are to learn how to read research papers in this important but highly specialized field and then to discuss some of the implications of this work to more general ideas about biology, evolution and science.

The class will meet twice a week for two hours.

NS 240

DE RERUM NATURA

Mini-Courses:Period III

NS 254

Plant Anatomy and Physiology

Lou Wilcox

How is the anatomy of a plant designed to carry out its many and varied physiological functions? Work in the field and laboratory, together with readings from texts and papers will involve students in the discovery of the internal workings of plants.

## SEPARATE COURSES

NS 194

## ASTRONOMY FOR POETS AND PROFESSIONALS

C. Gordon and B. O'Leary

Astronomy is an explosive field. New discoveries come in daily, textbooks become outdated as soon as they are printed, and our concepts about the universe and planets in the solar system are always changing.

What is a pulsar? A quasar? How far away are things? What kind of information can we bring out of the mute light of stars and galaxies? What are the planetary probes finding out -- is Mars alive geologically and biologically?

The course is designed for a large enrollment of division I students with a wide range of backgrounds. A core lecture will be given once a week; the class will divide into two groups the rest of the time. The first group will contain the poets -- those who might be afraid of mathematics. They will discuss some of the most tantalizing questions at the frontiers of astronomy, in plain English. The second group, the professionals, will be challenged to expand their minds to the quantitative reasoning of the astronomer. Both groups will make observations with telescopes.

The course will meet one hour, two days per week, two hours, one day per week, and occasional evenings.

NS 212

## CHEMICAL EQUILIBRIUM

Nancy Lowry

Equilibrium considerations are important in all branches of science. Chemical equilibria are especially interesting in the light of their effect on systems as varied as rivers, lakes, oceans, and blood. The course is to be entirely self-taught through films, tapes, a text, miscellaneous readings, and problems; the instructor is available as a consultant.

Since this course is self-study, the student may start it at any time during the semester. It generally takes from two to four weeks to complete. It is aimed at providing a source for students in biology, ecology, pre-med who need this information.

## SEPARATE COURSES

NS 114 (214)

## THE METABOLISM OF ERGOSTEROL

The Ergosterol Group, L. Miller, sponsor

A student led research project. Students in this course need not have any previous experience in research, but should expect to spend 10 hours a week in the lab working with the student leaders on experiments the leaders have designed. Students with previous lab experience will be welcome of course, as will more advanced students looking for challenging research.

The principal question we are asking is: "Why do yeasts produce so much ergosterol, a biological product that is very difficult and expensive to make yet has no known function?" To help understand the question we will read the research literature on ergosterol and on the known roles of sterols in other organisms.

The group will meet twice a week with Lynn Miller and other faculty members for discussion of the literature and to plan the work. Laboratory sessions will be twice a week for at least four hours each.

Limit: 12 students  
Hours: TBA

NS 117 (217)

## THE CARVONE STUDY

Lynn Miller

A research project. Two years ago a group of Hampshire students tested most of the other students on campus for their ability to smell two "carvones" -- well known compounds whose "common" names I won't tell you, too, may be tested some day. The students discovered that most people can "smell" both and distinguish them, some people can smell one but not another, and some cannot distinguish the two carvones, and rare individuals cannot smell either compound. The number of people tested in that experiment was too small to make good inferences about the frequency of the four "different" kinds of people or about why they might be different.

We would like to continue this preliminary survey in order to get enough information to determine that a more complete genetic analysis might be warranted, and to determine how we might carry out that genetic analysis.

Students with previous experience in genetics, statistical analysis, or psychological testing or with no previous competence but willingness to learn and work will be welcomed.

We will meet one hour a week until the actual test which will require much work for several days and much thought thereafter.

## SEPARATE COURSES

NS 128 (228)

## THE CALCULUS WORKSHOP

Kelly, staff

The fall '73 version of the Calculus Workshop will be more intensive than that planned for the spring. The course is designed primarily for students who anticipate studies in the physical sciences. We'll cover in one term most of the standard material of "freshman calculus" (see any other college catalog), and devote time to analysis of historical and philosophical themes.

The power of the calculus will be illustrated through significant applications of its concepts, primarily to the physics of motion. The class will meet four hours each week with additional problem seminars to assist in the development of technical proficiency.

NS 229

## CALCULUS TEACHING

Kelly

Participants in this course will be charged with the development and testing of a library of videotapes, programmed instructional units, readings, problem sets, and visual aids to facilitate the teaching of calculus at Hampshire. Students will be expected to assist in the Calculus Workshop and will meet weekly for a two-hour seminar. (Enrollment limit: 12)

NS 226

## LINEAR ALGEBRA

Ken Hoffman

The language and tools of linear algebra are becoming increasingly valuable not only to mathematicians, but to scientists and quantitatively minded social scientists as well. With the ready availability of computers, the techniques of linear algebra are supplementing or displacing the use of calculus in many applications. This course will explore some of these applications in addition to developing the basic theoretical framework. Open to Division II students in any School -- other students should obtain instructor's permission.

NS 223  
LC 202

## LOGIC\*

Jack LeTourneau

\*see description under Language and Communication 202.

## SEPARATE COURSES

NS 125  
SS 162

## TESTING HYPOTHESES

Michael Sutherland

This is a Division I course. This means its primary purpose is to provide an introduction to a particular mode of inquiry: that of building models of the world based on observations, generalizing from these models and then testing how well the more general model fits new observations. The course is especially aimed at students who want an introduction (and a lot of practice) observing the world, building theories based on their observations, generalizing their theories and then criticizing both their own and other peoples theories.

There will be the need for the students to learn some mathematics and develop certain mathematical skills as the course progresses. This will be accomplished both in class and through the use of student-on-student assistance.

The course has as its main purpose the exploration of model building as something that is not only worthwhile when applied to real problems but is also simply enjoyable in itself. As a secondary purpose the course will provide the basic materials for students to develop their own Division I exams in the areas under which the course is registered.

The course will have a one hour lecture three times a week.

NS 193

## BOTANICAL ASPECTS OF HORTICULTURE

Jim Sears and advanced students

This course is designed for students who are interested in plants but are otherwise hesitant about science courses. Based on practical aspects of horticulture, we will consider the botanical aspects of plant propagation, plant hormones, pruning and general plant requirements. Time will be divided about equally between working with plants in the greenhouse, lectures and discussions.

The course will run the full term and will meet four hours each week.

NS 127  
LC 138

## AUTOMATA THEORY\*

Jack LeTourneau

\*see description under Language and Communication 138.

## SCHOOL OF SOCIAL SCIENCE

INTERPERSONAL COMMUNICATION SS 107 (LC 111)	N. Stillings and J. Tallman
BIOLOGICAL AND CULTURAL BASES OF SEX DIFFERENCES SS 111 (NS 153)	L. Farnham
POLITICAL JUSTICE SS 115	L. Mazor
THINKING ABOUT THE UNTHINKABLE: AN ENCOUNTER WITH THE HOLOCAUST SS 118	L. Glick, J. Gootnick F. Landes and G. Vroman
INTELLECTUALS AND SOCIAL CHANGE SS 123	J. Koplin and R. Quinn
BIO-SOCIAL HUMAN ADAPTION: CASE STUDIES SS 128 (NS 169)	R. Coppinger and P. McKean
LOVE IN THE WESTERN WORLD SS 132	M. Faulkner
SOCIOLOGY OF HEALTH AND ILLNESS SS 138 (NS 164)	R. von der Lippe
UTOPIAS SS 155	B. Turlington
SCHIZOPHRENIA SS 159	L. Farnham
TESTING HYPOTHESES SS 162 (NS 125)	M. Sutherland
LEARNING EXPERIENCES RELATED TO COUNSELING AND THERAPY SS 163 SS 164/243 SS 244	T. Holman
THE HISTORY OF THE FAMILY SS 165	M. Slater
THE GOOD SOCIETY SS 167	M. Lunine



## SCHOOL OF SOCIAL SCIENCE

THE POLICE SS 172	B. Linden and L. Mazor
LECTURE SERIES: THEORIES OF INTERPERSONAL COMMUNICATION SS 179 (LC 148)	N. Stillings
CONTEMPORARY SOCIAL MOVEMENTS: RADICALS AND REFORMERS SS 210	P. Glazer
SEMINAR AND PRACTICUM IN CHILDREN'S LEARNING SS 213	M. Cole
CULTURE AND POLITICAL CONSCIOUSNESS SS 231	L. Click
CONSTITUTIONAL LAW: JUDICIAL REVIEW AND SEPARATION OF POWERS SS 234	B. Carroll
THE DISTRICT COURT: LEARNING IN THE FIELD SS 239 SS 302	B. Yngvesson and D. Matz
WHY WORK? SS 240	M. Conte and B. Linden
ADULT SOCIALIZATION SS 241	R. von der Lippe
CULTURE AND POVERTY SS 242	B. Yngvesson
MODULES IN WOMEN'S STUDIES SS 245	G. Hollander
CAN GOVERNMENT CURE POVERTY?: AN EVALUATION OF THE HOLYOKE MODEL CITIES PROGRAM SS 249	R. Alpert in con- junction with M. Sutherland
INTO THE "REAL WORLD" SS 250	M. Faulkner

## SCHOOL OF SOCIAL SCIENCE

PEOPLES OF INDONESIA: SOCIO-ECONOMIC DEVELOPMENT AND CULTURAL CONSERVATION  
SS 252 P. McKean

THE LEGAL PROCESS ON THE FRONTIER OF CHANGE: WOMEN AND CHILDREN FIRST  
SS 276 L. Mazor

THEORIES OF HUMAN MOTIVATION  
SS 291

R. Birney

INTEGRATIVE SEMINAR  
SS 301

R. von der Lippe

LAW AND LITERATURE: AN INTEGRATIVE SEMINAR  
SS 303 (HA 303)

L. Mazor and  
D. Smith

SCHOOL OF SOCIAL SCIENCE

Curriculum Statement: Fall 1973

In the School of Social Science we are trying to offer courses that focus on problems of enduring concern and that emphasize the value of approaching such problems from a variety of disciplinary perspectives. We know that there is no single all-embracing social science, but we approach our work with the conviction that understanding human problems and acting on them intelligently requires something in addition to good sense and good intentions. So whatever subject you study, we trust that you will come away from the course with fresh insight into how complex all human situations are and how much better they can be understood by honest efforts at disciplined inquiry.

Division I courses are intended to be generators: ideally they convert you from passive receiver to active semi-independent learner. Having demonstrated in an exam that you have acquired that basic skill, you're ready for the more intensive and comprehensive study offered in Division II courses.

NOTE: Anticipated additions to Social Science course offerings:

Anson Rabinbach: two courses (Division I and Division II) on European social and intellectual history.

Carollée Bengelsdorf: two courses (Division I and Division II) on comparative studies in Third World history and politics.

Stanley Warner: one course (if he's appointed House Master) on economics. (Warner will be a recommended appointment for School if he is dropped from Master candidacy.)

Economist (not selected): two courses.

Replacement for Fred Weaver who will be on leave, and additional temporary appointments with whatever funds are available -- probably another two or three courses.

SS 111 (NS 153)

BIOLOGICAL AND CULTURAL BASES  
OF SEX DIFFERENCES

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. 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 psychosocial and cultural influences which interact with the biological substrates.

This course will meet twice a week for two hours.

Enrollment is limited to 20.

SS 115

## POLITICAL JUSTICE

Lester Mazor

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

We will begin by examining the roles of the parties, attorneys, witnesses, judge and jurors in a conventional trial on a matter which is not highly charged with political consequences or emotion. The bulk of the course will consist of class study of a number of notable political trials and of the myths which arise from them. Examples of the kinds of trials I have in mind are the Sacco and Vanzetti case, the trial of the Chicago 8, the Rosenberg case, the trials of the Berrigans, and the Angela Davis case. Several trials in the Soviet Union will also be examined to provide a basis for comparison across national and cultural boundaries. What political ends were sought and obtained and whether justice was done will be persistent questions. Each student will be expected to follow a political trial in progress throughout the course and to analyze it in the light of the work of the course.

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

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

Enrollment is limited to 20.

SS 118

THINKING ABOUT THE UNTHINKABLE:  
AN ENCOUNTER WITH THE HOLOCAUST

Leonard Glick, Jon Gootnick\*, Fred Landes\*, and Galina Vromen\*

The destruction of six million Jews and countless other innocents during World War II was a tragic event in Jewish and human history. Never before was man witness to the systematic attempt to annihilate an entire people. Its effects were widespread. Some of these were immediately evident, while others are still in the process of working themselves out. They continue to affect relations between nations, peoples, and religions. They influence the actions, beliefs and values of individuals. The present generation of students is notably a post-Holocaust one for whom that event is remote and unreal despite the fact that it impinges on their lives and their world. It is the purpose of this course to try to learn about the Holocaust, to try to understand that which seems to defy understanding and to try to face its effects.

The course is unique in that it is student co-ordinated and will consist of lectures by five-college and outside faculty, tutorials, videos and movies. Leonard Glick, Dean of the School of Social Science, will serve as moderator.

This course will involve commitment and intensive reading. Though it is a Division II course, Division I students may be accepted by interview. For interviews contact Jon Gootnik, Fred Landes or Galina Vromen.

The course will meet for a minimum of 4 hours weekly.

\*Jon Gootnick, Fred Landes, and Galina Vromen are students at Hampshire College.

SS 123

## INTELLECTUALS AND SOCIAL CHANGE

James H. Koplin and Rosemary Quinn\*

You, as students, have elected to spend approximately four years in an environment where intellectual development is given primary focus. Faculty members have made a life-long commitment to intellectual values. Both groups typically work in a setting (the college campus) which is set apart from, but still embedded in, a larger world which is going through increasingly rapid and often violent social change. How do intellectuals (on-campus and off-campus) view their relationship to society? Can we be clear about our own responsibilities?

We will examine a number of possible answers to these questions, not all possible answers by any means. The instructors are most competent to represent the arguments from the perspective of a radical analysis of the current scene. The following suggested readings will reflect this bias; but, we assume that the members of the class will add to and delete items from this list as we work together during the first meetings of the term.

Jean-Paul Sartre, a case history

"Dirty Hands" by Jean-Paul Sartre

The Age of Reason by Jean-Paul Sartre

Recent interviews with Sartre from the New York Times and other sources

## General references

Power and Consciousness, Vaneech and O'Brien (eds.)

American Power and the New Mandarins, Noam Chomsky

Problems of Knowledge and Freedom, Noam Chomsky

A model for change -- China

Man's Fate, Andre Malraux

Fanshen, William Hinton

Turning Point in China, William Hinton

The class will meet for two 1½ hour sessions per week using a group discussion format. Smaller tutorial sections will be arranged as needed.

Enrollment is limited to 20.

\*Rosemary Quinn is a student at Hampshire College.

SS 128 (NS 169)

BIO-SOCIAL HUMAN ADAPTION:  
CASE STUDIES

Raymond Coppinger and Philip McKean

The course will focus on understanding human evolution and behavior, taking account of two critical variables: nature and culture. We will be asking how a scientist tries to sort out the biological and socio-cultural dimensions in the human species, and will look at several case studies to examine this relationship between human groups and their environment and culture. Specifically, we will study in detail the Balinese of Indonesia and the Eskimos of the Arctic.

A sub-theme will be an attempt to use films extensively, showing that they are not "value-free", but invested with a "vision of reality" by the filmmakers, producers, and editors. We hypothesize that ethnographic films are at least as much an indicator of the problems and pre-occupations in the culture of the film-makers as in the culture being filmed. We expect to view and discuss several dozen films.

We will also examine a number of "pop-anthrop" books, such as those of Ardrey and Morris, which purport to "explain" human behavior, and ask not only what criticisms of their theses are appropriate, but why these books are written and read with such enthusiasm in our contemporary culture.

The course will meet once a week for two hours plus an hour tutorial.

Enrollment is unlimited.

SS 132

## LOVE IN THE WESTERN WORLD

Monica Faulkner

This course will introduce students to some basic sociological concepts and theories by examining the specific problem of couple relationships, the growth of marital (and non-marital) cultures, and the interrelationships between marital and occupational worlds. The main body of the course will consist of reading and analyzing a number of case studies dealing with these problems. Students will be expected to present one class report on a relevant topic and will write at least two short papers.

Tentatively the course will meet once a week for two hours.

Enrollment is limited to 20.



SS 133 (NS 164)

## SOCIOLOGY OF HEALTH AND ILLNESS

Robert von der Lippe

The aim of the course will be to view health, illness and the healing professions and institutions from a sociological perspective. Traditionally questions of health and illness have been discussed and studied in the biological sciences and in psychology. In the last decade, however, the social sciences in general have been consulted by medical institutions for their views on various aspects of health as they concern the ongoing processes of modern industrialized societies. Sociology's interests in the area are as broad as the discipline of sociology itself since it is felt that the perspectives and skills of the sociologist have relevance for many areas of health and illness.

The extent to which social factors may play a part in the creation of health, illness and in the recovery process are general concerns of the course. Questions considered in more intensive detail may concern such subjects as the relationship of time to the healing process, the social aspects of death and dying, the social and social psychological factors in mental illness and its treatment, the use of computers and data processing equipment in the delivery of modern medical care, hereditary aspects of health and illness, medical care delivery systems, the social aspects of public health and preventive medicine, the social science contributions to epidemiology, and finally, the concern of social scientists with regard to pestilence and plague. The course concludes with a brief look at certain future trends in medicine and the delivery of medical care and with sociology's interest in those trends. Readings for the course will include: Rene Dubos, Mirage of Health; David Sudnow, Passing On: The Social Organization of Dying; David Mechanic, Mental Health and Social Policy; Robert N. Wilson, The Sociology of Health; Burton Rousche, Eleven Blue Men and others.

The seminar will meet twice per week for two hours each meeting. The work will be coordinated with Human Biology I and students are urged to combine their work in social science with work in natural science.

Enrollment is limited to 20.

Barbara Turlington

This will be a study of ideal and experimental communities in theory and practice, from Plato's Republic to the contemporary commune movement.

From the time of classical Greece, people have been aware that society shapes the individual as much as the individual shapes society. The variety of writing about possible forms of society is immense, as is the number of experiments in establishing intentional communities. Over a hundred socialist communities were formed in America during the 19th century; estimates of current communal experiments in this country range from one to two thousand.

The classical utopian writers (Plato, More, Bellamy) tend to assume that people can become "good" in a good society. B. F. Skinner, in Walden Two, pushes this idea to the point of the assumption that all of a person's attitudes and behavior can be controlled by the "conditioning" provided by the environment. The antiutopian novels of Huxley, Zamyatin, and Orwell predict the effects of total control by the state.

Each of these writings raises important questions about human nature and how it is shaped by society, and about theories of training the young within certain types of communities. Does the form of a society make the individual good or bad, and if so, how? Is societal organization compatible with individual freedom? How much do the means chosen by society to achieve its objectives influence individual development? What are the chances of success of "intentional communities" outside the mainstream of society? What are the effects on the individuals who join them?

Students in this seminar should be able to begin to develop their own standards by which to judge actual societies and to decide on improvements they want to work for. They will have a chance to study the writings of utopian thinkers and their critics and to examine experiments in communal living in this country, both those of the 19th century and those of today, including a visit to one of the communes in this area. Individual projects will permit further reading on such topics as education, the place of women, family relationships, work, urban planning, or theories of freedom and their relation to utopian thought.

The class will meet twice a week.

Enrollment is limited to 20.

SS 159

## SCHIZOPHRENIA

Louise Farnham

The seminar will address such questions as: What is the nature of schizophrenia? What are the criteria for differentiating schizophrenia from other forms of psychopathology? How does schizophrenia develop? What therapies are employed in the treatment of schizophrenia and how effective are they?

The first part of the seminar will be devoted to an introduction to the general principles of abnormal psychology and the classification and description of disorders. The remainder of the course will deal specifically with schizophrenia, its causation, incidence, and treatment. Reading assignments will include selections from Laing's The Divided Self, Green's I Never Promised You a Rose Garden, Goffman's Asylums and Hollingshead and Redlich's Social Class and Mental Illness as well as research papers investigating the roles of sociocultural and biological factors in the etiology of schizophrenia. Additional selections will deal with methods of treatment.

The seminar will meet once a week for two hours with one tutorial hour. The work of the seminar will include an independent project which can be either an oral presentation to the class or a research paper.

Enrollment is limited to 20.

SS 162 (NS 125 )

## TESTING HYPOTHESES

Michael Sutherland

This is a Division I course. This means its primary purpose is to provide an introduction to a particular mode of inquiry: that of building models of the world based on observations, generalizing from these models and then testing how well the more general model fits new observations. The course is especially aimed at students who want an introduction (and a lot of practice) observing the world, building theories based on their observations, generalizing their theories and then criticizing both their own and other peoples theories.

There will be the need for the students to learn some mathematics and develop certain mathematical skills as the course progresses. This will be accomplished both in class and through the use of student-on-student assistance.

The course has as its main purpose the exploration of model building as something that is not only worthwhile when applied to real problems but is also simply enjoyable in itself. As a secondary purpose the course will provide the basic materials for students to develop their own Division I exams in the areas under which the course is registered.

The course will have a one hour lecture three times a week.

Enrollment is unlimited.

SS 163 SS 164/243  
SS 244

LEARNING EXPERIENCES RELATED  
TO COUNSELING AND THERAPY

Thomas Holman

I would like to try something new in terms of structure, for me, and that is to present three small seminar/tutorials on topics related to counseling and therapy which would involve both a didactic and an applied experience in each group.

Each tutorial will be limited to eight students, with tutorial time and applied work to be arranged. Enrollment in each of the separate learning experiences will be with consent of instructor.

SS 163 - Introduction to Clinical Psychology

A beginning introduction to the community, assessment and treatment aspects of applied clinical psychology. The tutorial time will focus on a variety of brief books or monographs related to the above mentioned aspects; the applied experience would involve a brief weekly placement as a volunteer in one of the various treatment facilities in the valley, arranged by the instructor. (Open to students with little or no formal course work in psychology).

SS 164/243 - Psychology of the College Student

A seminar in which the didactic focus would be on developmental psychology of the college age young adult, with a list of readings from a variety of traditional and non-traditional sources. The applied section would entail a self-study along the lines of an in-depth case history, attempting to relate it to the assigned readings as we go along. (Open to those with some experience or course work in psychology or the social sciences.)

SS 244 - Systems of Psychotherapy

A tutorial whose didactic focus would be on the various treatment theories of psychology, including such approaches as Freudian, Jungian, Rogerian, Existential, and conditioning therapies. Hopefully, the applied half could focus on the life and practice of a "real, live therapist" whom one would relate to over the semester, or a study of one of the theorists we will be reading. (Open to those who have passed into Division II in the Social Sciences and who's professed interest is in counseling that therapy.)

SS 165

## THE HISTORY OF THE FAMILY

Miriam Slater

This course will focus on the development of the family in the early modern period of Western Europe (16th and 17th centuries). Since changes in family structure, relationships, and values take place at different rates over time and have little respect for arbitrary chronological categories, these dates are meant to provide a starting point and emphasis for the work of the course rather than a time limit. Historical studies of Western European and Colonial American family life will be used as the substantive materials of the course. It will, however, be interdisciplinary in approach because we will employ the conceptual tools of the behavioral sciences in formulating questions and in analyzing the historical material. In keeping with the interdisciplinary nature of the course, some literary sources may be utilized but these will be chosen on the basis of what they can contribute to an understanding of historical development. Collateral readings in the social sciences will be assigned according to the interests and levels of achievement of the students.

The course will examine the following problems:

- The Structure of the Family
- The Functions of the Family
- The Patriarchal Family - Relationships
- Marriage
- Children
- Hypothetical Model of the Traditional Family

Some texts to be used include:

- Goode, William J., The Family
- Demos, John, The Little Commonwealth
- Hunt, David, Parents and Children in History
- Laing, R. D., Politics of the Family
- Firestone, Shulameth, Dialectic of Sex

The course will meet once a week for two hours, plus tutorials. Please also consider taking either or both of Gayle Hollander's modules, Women in the Russian Revolutionary Movement and Power in the Family in SS 245, Modules in Women's Studies, as an adjunct to this course.

This course is open to Five-College students.

Enrollment is limited to 20.

The purpose of the course is to try to provide some insights into the complexities (the problems and the possibilities) of "The Good Society" by examining the existential condition of the black man (Everyman) in the United States. We shall explore certain realities from political, artistic, sociological, economic, psychological, governmental, international, and personal points of view and of departure.

We shall read (not necessarily in the following order): LeRoi Jones, Dutchman and The Slave; Crier and Cobbs, Black Rage; The Autobiography of Malcolm X; M. L. King, Jr., Where Do We Go From Here: Chaos or Community; Report of the National Advisory Commission on Civil Disorders (Kerner Report); Richard Wright, Native Son; Ralph Ellison, Invisible Man; Frantz Fanon, Wretched of the Earth; William Styron, The Confessions of Nat Turner; William Styron's Nat Turner--Ten Black Writers Respond; Carmichael and Hamilton, Black Power; Charles Silberman, Crisis in Black and White; John O. Killens, Cotillion.

In addition to books, other experiences (such as films, trips, guests, etc.) can be arranged--hopefully on student initiative. One project in any form and medium will be required for the term. Two short analytical reports also will be required. A midterm "progress report" will be given by each person during one of the sessions about midterm.

The course will meet once a week for two to three hours. Each participant is urged to meet fortnightly or so with me on a tutorial basis to discuss course matters, projects, etc.

Maximum enrollment: 16

SS 172

## THE POLICE

Barbara Linden and Lester Mazor

This course will be taught jointly by a sociologist and a lawyer interested in studying the police as an agency of social control and as an occupational group. We are particularly interested in the ways in which the daily condition of work affect the uses of police power. The principal focus will be on the police in modern American society, but to maintain perspective we will also consider the police in several other countries.

Topics to be explored in the course include the public image of the police and popular attitudes toward the extent and exercise of police authority; training, formal organization of the police structure, and informal social processes of police work; police-community relations; controls over police behavior; and the effect of a police career on the life of the police officer.

The class will undertake a series of research exercises designed to provide some understanding of the methods of legal and sociological research. In addition to this field work and the assigned reading for the course, guests with experience of police work from a variety of perspectives will meet with the class and an effort will be made to involve members of local police forces in the course. One session each week will involve viewing and analyzing films made of policemen at work (the films were made by John Marshall of the Center for Documentary Anthropology in Cambridge).

Enrollment is limited to 32.

SS 210

CONTEMPORARY SOCIAL MOVEMENTS:  
RADICALS AND REFORMERS

Penina Glazer

Radicals and reformers are an ongoing part of American society. Who are these people? What motivates them to commit time, energy, and money to the advancement of a social idea?

The thrust of this course will be an attempt to analyze the inter-relationship of personal biography, history, and social structure as it manifests itself in particular social movements. Students will be placed in a variety of organizations which are dedicated to aspects of social reform. The material gathered will be incorporated into an analytical paper which will be shared with other members of the class.

The course will be taught in conjunction with Sociology 305a (Subcultures and Social Movements) at Smith College. The meetings will rotate between Hampshire and Smith.

The course will meet once a week for two hours plus a tutorial.

Enrollment is limited to 16.

SS 213

## SEMINAR AND PRACTICUM IN CHILDREN'S LEARNING

Michael Cole

This course is designed for Division II and Division III Social Science concentrators who have had some exposure to issues of children's learning and cognitive development. The course has two foci: 1) to provide the student with in-depth reading and discussion of some problem in children's learning of the student's choosing; 2) to provide research experience as part of an active psychological research group based at the Rockefeller University.

At the beginning of the semester, the class will meet with the instructor as a group. Each individual's needs and interests will be explored and a course of readings begun. At some time during the semester (for a period of not less than 30 days) each student may (but need not) work in New York City where housing near the Rockefeller University will be provided. While in New York, the student will do research, attend seminars and meet with the instructor and his staff.

The course is restricted to nine students maximum. Admission is by permission of the instructor. Sample topics pursued by students previously enrolled in this course include:

1. The development of memory
2. Language differences and language deficits
3. Cognitive development and humanistic education
4. Vocabulary tests and the language of instruction

To discuss enrollment in the course, the student should see Michael Cole during one of his visits to Hampshire (see Bette White, Academic 218 for the spring '73 schedule) or call collect to (212) 360-1744.



SS 231

## CULTURE AND POLITICAL CONSCIOUSNESS

Leonard Glick

This course will be divided into two units of six weeks each. Each unit will be organized as follows:

Weeks 1-2 Presentation of problem or topic by instructor. Introductory readings and discussion. Suggestions for short term intensive research into selected aspects of the problem.

Weeks 3-4 Student research. (Students encouraged to work in pairs.) Scheduled consultations with instructor; guidance in use of reference materials and preparation of reports.

Weeks 5-6 Student presentations with discussion. Alternative or opposed positions represented whenever possible. All students submit paper.

(Other faculty would be invited to join class during weeks 1-2 or 5-6 to discuss the problem or respond to student presentations.)

## Unit I - Cultural Foundations of Unification and Liberation Movements

Studies of nativistic and nationalistic movements with special attention to religious ideology and ritual as an early stage of cultural unification and political liberation movements. Introductory readings (Wallace, LaBarre, Aberle, Lanternari, Burridge, etc.) followed by research into one movement and analysis of its dynamics. Possible topics for research include Ghost Dance, Peyote, Black Muslims and Black Nationalism, Ras Tafari of Jamaica, "cargo cults" in Pacific, Mau Mau and numerous other African liberation movements, the "new religions" of Japan, etc.

## Unit II - Culture and National Identity

Studies of cultural and ethnic diversity as sources of conflict in nations; also studies of cultural identity as sources of unification. Introduction to political aspects of cultural provincialism and ethnic antagonism in modern nations. Research into particular nations (e.g., Malaysia, Trinidad, Guyana, Nigeria, Canada) or cross-national movements (e.g., negritude, Arab nationalism).

Enrollment is limited to 20.

Bruce Carroll

The separation of powers doctrine is one of America's unique contributions to government. It was conceived as a method to check abuses and concentrations of power, and was intended to insure a system of checks and balances by each branch of the government upon the other.

Recently, however, the entire concept has been subjected to intensive questioning. Charges and countercharges about usurpations of power have become commonplace, raising to the forefront the applicability of the doctrine to the problems confronting the nation today.

Our recent history is replete with examples of the push and shove of the constitutional separation. Among the most sensational is the current conflict between the President and the Senate over the doctrine of executive privilege. Publicly urging a Court test, the President has refused to permit his staff to appear and testify before the Senate concerning the Watergate affair, and the Senate has responded by holding the Patrick Gray nomination in limbo. At this time (March, 1973), it appears that Senator Ervin will accept the President's challenge, and that the Court will soon be confronted with finding a solution to another constitutional crisis.

The President's exercise of his power as commander-in-chief in Viet-Nam and Cambodia and the Senate's response in the form of the Cooper-Church Amendment, the Senate rejection of Presidential nominees to the Supreme Court and the President's charge of usurpation of Presidential prerogative, the power of the Congress to investigate the extent to which the Executive was involved in political espionage and the President's assertion that he may impound appropriated funds at his discretion, are merely among the most current of the conflicts engendered by the fact of a system of separation of powers.

Possessing neither the sword nor the purse, but only the power of judgment, in the final analysis it is the Supreme Court who must attempt the resolution of these conflicts. The resolution of some of them is the subject of this course. Using the Federalist Papers to establish the framework, Supreme Court decisions will be studied to determine the role of each branch of government under our system of separation of powers. The course will conclude with a critical analysis of the utility of applying an 18th century concept to the 1970's. There will be one two-hour meeting a week with additional sessions to be arranged.

N.B., During the second semester a seminar on some to-be-determined topic in civil rights will be offered. A semester of constitutional law will be required for admission to the seminar.

## SS 239 (SS 302) THE DISTRICT COURT: LEARNING IN THE FIELD

Barbara Yngvesson and David Matr

This is two courses. The first is a study of the lower courts in Massachusetts. The second, which interweaves with the first, is a study of how one learns about a live institution through working in it, observing it, and reflecting on it.

Massachusetts District Court, which handles everything from traffic violations to law suits to crimes punishable by incarceration of up to five years, will be viewed in its own terms and in its relationship to a variety of other persons and institutions -- including the police, the prisons, District Attorney, private attorneys, those accused of crimes, and those party to law suits. The course is to develop understandings of how it operates and why it operates that way.

Each student will, for the duration of the course, hold a responsible position with the Massachusetts District Court system or with one of the persons or institutions listed above. The classroom work will aim at seeing what value field experiences have for arriving at an understanding of the District Court, what relationship they have to readings about courts, and what different kinds of understandings are possible in studying legal institutions.

The course will meet at least two times a week for one and one-half hours each. Students will be expected to devote at least eight hours a week to their field work. A good deal of writing will be involved.

Enrollment is limited to 32.

SS 240

## WHY WORK?

Micheline A. Conte\* and Barbara Linden

Work is our sanity, our self respect,  
our salvation. So far from being a  
curse, work is the greatest blessing.

- Henry Ford

Using classics in the fields of sociology, anthropology, economics, and history, we will explore the meaning and role of work in different times and cultures. Particular focus will be given to occupational placement, automation, unionization, alienation, boredom, and other aspects of work under modern capitalism. Socialist and other alternatives to the organization of work will be explored, along with studies of specific occupations.

## Representative readings are:

Spiro, Kibbutz: Venture in Utopia  
Bell, Work and its Discontents  
Hughes, The Sociology of Occupations  
Huisings, Homo Ludens  
Alex, Black in Blue  
Komarovskiy, The Unemployed Man  
Blau, Alienation and Freedom  
Langer, Women in the Telephone Company  
Swados, On the Line  
Mills, White Collar

This course will meet once a week for two hours.

Enrollment is unlimited.

\*Micheline A. Conte is a Division III student at Hampshire College.

SS 241

## ADULT SOCIALIZATION

Robert von der Lippe

The guiding notion of this seminar will be to demonstrate the impact of various institutional settings upon personality development and personal growth; to inform students that though much of what they are and will be has been constrained and fashioned by their early childhood experiences, much remains to be patterned by the extent and kind of exposure they receive in a multitude of institutional environments. Specific reference to such institutions as schools, colleges, graduate schools and places of employment will guide the progress of the course. The nature of "total institutions" such as hospitals, the military, and prisons will highlight the mechanisms of institutional impact upon individuals. All of this will follow a core of material specific to the socialization process in general -- whether childhood, adult, or behaviorally specific.

Materials to be read for the seminar will include: Howard Becker, Blanche Geer and Everett Hughes, Making the Grade; Julius A. Roth, Timetables; Robert A. Scott, The Making of Blind Men; Erving Goffman, Asylums, Seymour Hersh, My Lai 4; and Orville G. Brim, Jr. and Stanton Wheeler, Socialization After Childhood. The course will meet twice per week for two hours each time. The format will include lectures, discussions, films, and field experiences to a number of institutional settings -- not the least of which will be the student's own life at Hampshire College.

Enrollment is unlimited.

It has been suggested that "poverty in modern nations is not only a state of economic deprivation, of disorganization, or of the absence of something. It is also something positive in the sense that it has a structure, a rationale, and defense mechanisms without which the poor could hardly carry on. In short, it is a way of life, remarkably stable and persistent, passed down from generation to generation along family lines. The culture of poverty has its own modalities and distinctive social and psychological consequences for its members. It is a dynamic factor which affects participation in the larger national culture and becomes a subculture of its own" (Oscar Lewis).

This statement suggests that the poor as a group, irrespective of national or ethnic background, have a distinct culture of their own: They share a particular complex of understandings and of strategies for dealing with each other, on the one hand, and with those who are not poor, on the other. The statement suggests that this culture is valued and is self-generating; and it implies that cultural factors are at least as important as, for example, economic factors, in maintaining the conditions of poverty.

Is this a valid perspective on poverty, and what are its implications? What alternatives might be proposed to this view? In this course we will examine these problems using ethnographic and sociological studies (such as Oscar Lewis' La Vida, Clark's Dark City, Kiel's Urban Blues, Liebow's Tally's Corner), as well as novels, autobiographies, and other reports. A key work for the course will be Valentine's Culture and Poverty.

Students taking this course should plan for a field-work time commitment that is approximately equivalent to another course. The course will meet twice a week for 1½ hours plus field work tutorials.

Enrollment is limited to 16 students.

SS 245

## MODULES IN WOMEN'S STUDIES

Gayle Durham Hollander

I. Women in the Russian Revolutionary Movement (Four Weeks, those of Sept 17-Oct 8)

An enquiry into the nature of the Russian revolutionary movement with respect to how it affected women and what part women of various social classes played in it. Readings will include general political-historical analyses of the nineteenth-century intelligentsia and the changing character of political orientations in the movement, and writings (memoirs, letters, treatises) of various prominent women revolutionaries.

The class will meet twice a week as a whole, although an additional student discussion group may be arranged. If several people wish to continue working in this field as an independent study group for the duration of the semester, I will be available for supervision and advice.

The format for the first few meetings will be lecture/discussion, followed by discussions.

II. Power in the Family (Four Weeks, those of Oct 29-Nov 19)

An analysis of the family as a political system. More particularly the family will be viewed as an agent of the political system in socializing members to political behavior. We shall ask basic questions concerning the differences in how men and women are brought up to see themselves in political contexts especially with regard to authority, political activism, access to power resources, and so on. The emphasis will be on women and how their limitations in the political system might be overcome by changes in their upbringing.

Although most of the political science literature on political socialization is based on the United States, this course will include material from other societies (including the Soviet Union, Nazi Germany, China and others).

The class will meet twice a week as a whole, although an additional discussion group may be arranged.

This module would be a useful adjunct for students taking Miriam Slater's History of the Family course.

Students may enroll for both modules as a Women's Studies Unit, or in either of the modules separately. Enrollment for both modules, whether individually or together, must be done at the beginning of the semester. See me for exceptional circumstances.

Both women and men are welcome, and Five-College enrollment is encouraged. (Five-College students should consider the modules together as one course equal to four credits.)

SS 249 CAN GOVERNMENT CURE POVERTY?:  
AN EVALUATION OF THE HOLYOKE MODEL CITIES PROGRAM

Richard M. Alpert in conjunction with Michael Sutherland

Holyoke, Massachusetts, is one of the one hundred fifty cities in the United States chosen by the Federal Government for a special five-year program designed to "eradicate poverty and urban blight." The program began in 1970 and, because of recent cut backs by the Nixon Administration, will terminate in July, 1974. Since August, 1971, I have been closely associated with the Program and am now in the process of writing a full length study of its impact on social problems and politics in Holyoke. This course will form a critical part of that study.

The course will focus on the question of the impact of the Model Cities Program on Holyoke's poor, its political process, and its key institutions, such as health delivery systems, the police, and the school system. Students will learn the conceptual and methodological skills involved in policy analysis and evaluative research. Model building, causal analysis, problems of causal inference, and data analysis will all be explored in the context of doing evaluations of "real world" problems in the setting of an existing social action agency. Special attention will be given to both the ideological and other value dimensions involved with all public policy and social analysis and to the ethical questions raised by policy research and field study.

Each student will be expected to do an evaluation of one aspect of the Model Cities Program.

The course will meet three times a week for an hour.

Enrollment is unlimited.

SS 250 INTO THE "REAL WORLD"

Monica Faulkner

This course hopes to attract students who are interested in reading about and then learning to do qualitative research. We will spend several weeks reading about and discussing some of the basic techniques -- participant observation, unstructured interviewing, ethnography -- and their applicability to various kinds of intellectual problems. Then the students will choose a setting which they wish to study, go into the field, observe and analyze, and finally write up their findings. Class meetings will continue during this second phase, and will focus on discussions of field notes; students will read and criticize one another's work throughout.

Tentatively this course will meet once a week for two hours.

Enrollment is limited to 16.



SS 252

PEOPLES OF INDONESIA:  
SOCIO-ECONOMIC DEVELOPMENT AND CULTURAL CONSERVATION

Philip McKean

The fifth most populous nation in the world is composed of over 300 distinct ethnic groups, and provides in microcosm a series of topics worthy of study by social scientists, artists, historians or other literati. The contrast between the "inner islands" (Java and Bali) and the "outer islands" (Sumatra, Borneo, Sulawesi, the Moluccas, West New Guinea, etc.) is one of ecological, economic, and socio-cultural importance, as is the distinction between cultures based on wet-rice agriculture in the fertile volcanic basins of Java/Bali and the harbor-oriented cultures on the coasts. The multi-ethnic urban groups, the culture-change as Indonesia begins to "develop and modernize", the religious differences between Islam, Hinduism and Christianity, the indigenous folk-tales, arts and rituals, the problems in education, transportation, language development, political stability and international infra-structures are all of interest to me, and might be examined by students.

Teams of students with common or complementary interests will be formed to work together in preparing research reports for the weekly or bi-weekly session of the group.

The seminar will meet once a week for three hours.

Enrollment is unlimited.

SS 276

THE LEGAL PROCESS ON THE FRONTIER OF CHANGE:  
WOMEN AND CHILDREN FIRST

Lester Mazor

The situation of women and of children is undergoing rapid change in many parts of the world. This change is both stimulated by and reflected in the legal process. This course will examine the changing legal status of women and children in America, both as a subject of interest in its own right and as a vehicle for the exploration of the role of law in society. It is intended to meet the needs of those who desire a general view of the operations of legal institutions and to serve as an introduction to law for those wishing to establish a foundation for advanced study in legal institutions and processes, as well as to meet the need for a greater understanding of the legal rights of women and children.

Topics which will be treated in the course will include (1) legal aspects of employment discrimination against women; (2) taxation and property rights; (3) treatment of women in the criminal law and the penal system; (4) the law concerning marriage, divorce, child custody, and adoption; (5) abortion and birth control laws; (6) the law concerning child abuse and parental authority over children; (7) student rights; (8) the juvenile court process; (9) political and civil rights of women and children. We will consider the role of courts, legislatures and administrative agencies, and the practicing bar; the relationship of the formal legal system to less formal modes of social control; the internal process of change in the law, including the development of common law, statutory interpretation, litigation and management of transactions; and the capacities and limits of the law as a vehicle for change.

Members of the class will be expected to gather experience on one of the topics of the course through their own field work, to put that experience into the context of the existing research and literature on the subject, and to make the knowledge thus acquired available to the class in a useful way. The class as a whole will be seeking to break ground for instruction in the legal rights of women and children in college, secondary and elementary schools, and by other agencies and groups, such as the Women's Center.

This course will also include a series of meetings, open to the public, featuring speakers who are currently working on problems relevant to the course. The class will meet once a week for two hours plus an hour tutorial.

Enrollment is unlimited.

SS 291

## THEORIES OF HUMAN MOTIVATION

Robert C. Birney

This course is for advanced students who wish to pursue that psychological literature devoted to experimentally derived models of human motivation. Departing from the basic material provided in Bernard Weiner's recent review of major approaches, we will then divide into project working groups for purposes of exploring the literature of attribution theory, theories of action, and theories of motive acquisition. Class will meet for two-hour sessions twice a week and consist of discussion, analysis, presentation and critique of reports and occasional data collection and analysis. The aim here is to provide students concentrating on subject matter which might benefit from a knowledge of the psychological literature on human motivation.

Enrollment is open.

As a coordinate activity of the course, the "lab" described below will be offered under the supervision of the instructor by a student, Richard Hexter, as part of his Division III work.

Achievement Training Laboratory

Do you have any way to assess how well you are doing at Hampshire?

Are you a "generally self-confident individual?"

Do you want concrete regular feedback?

Do you set goals for yourself?

Do you take pride in your accomplishments?

The Achievement Training Laboratory will meet once a week for two hours. Much of the work in the lab will be done in connection with Motivational Workshops by David G. McClelland. In the labs you will play at least four games, role play various situations, fill out various questionnaires, and examine Hampshire College in terms of motivational theory. There will be two hours of required reading a week, and a one to two-page paper every other week. You will find the exercises are quite structured and often are based on risk-taking behavior.

If you would be interested in working with a group of people who find the above questions raise questions in their minds about themselves and about what they are getting out of their experience of being at Hampshire, join this experiment in achievement training. Achievement training will give you a vocabulary and a way to come to grips with the above questions. The laboratory will bring you into some direct confrontation with the question of who you are.

Students often take psychology to learn about themselves, but they are usually sternly advised not to expect to learn anything useful or relevant to their own lives. Examining yourself inevitable raises questions as to whether you like what you find and whether you want to, or can, change.

While achievement training is not analogous to group therapy or encounter groups, it may provide you with a tool for setting, understanding, and ordering your present and future goals. While you stand to learn about yourself, it should be stressed this is not just a course of self revelation.

Open to Division I and II students

SS 301

## INTEGRATIVE SEMINAR

Robert von der Lippe

This seminar as its title states is intended to be integrative. Because the faculty this time is a social scientist does not mean that the topics must be limited to social science. It is hoped that students from all four schools, or combinations thereof, can participate with each other. We want to attempt to apply the notion of general education which includes diversity and integration of knowledge as potentially valuable end products and valuable contexts for carrying on advanced work. We want to see if the students of one field or discipline can make themselves intelligible to students from another and if, in the process, each students' work becomes stronger and more informed.

The goals of the seminar are these: (1) To have each student participant report on their Division III project both in process and in conclusion (2) To have each participant take seriously the responsibility of communicating to the other participants in the seminar in ways that allow for their understanding of the projects. This is to include the rationales, theoretical foundations, methodologies, and conclusions of each project regardless of the field being represented, (3) Finally, that each participant take seriously the responsibility of feeding back to a reporting student his confusion, understanding, and/or suggestions for further work.

These goals imply that each participant will probably have reporting responsibilities once or twice and continuing responsibilities throughout the life of the seminar to be informed on others' reports and to respond in as intellectually honest ways as possible. In this latter regard, each reporter will be responsible for making available short readings to the seminar participants so that some information background is available in advance for discussion.

This seminar is open to interested observers. In addition, however, there may from time to time be people who would be particularly interested and/or informed on a seminar topic to attend and participate. These need not necessarily be advisors, supervisors, or others connected in an evaluative way with the topic but generally more broadly interested. They are welcome and urged, at any of the participants invitation, to attend.

This seminar will meet once a week for two hours.

Enrollment is open only to Division III students.

SS 303 (HA 303)

LAW AND LITERATURE:  
AN INTEGRATIVE SEMINAR

Lester Mazor and David Smith

This seminar will bring students of literature and law together for a weekly meal and several hours of discussion centered in works selected both for their importance and the insight they offer on three major themes: (1) The Trial as Metaphor, (2) The Idea of Property, and (3) The Nature of Justice.

Our aim is to examine and discuss in depth two or three works on each of these themes and to draw on secondary sources for a deepening of perspective. We expect that students in the seminar will bring to bear viewpoints they are developing in the course of their Division III work in Literature or Law.

We will examine works such as Kafka's The Trial, George Jackson, Soledad Brother, Gaylin's, War Resisters in Prison, Melville's Billy Budd, John Locke and other eighteenth-century philosophers on the subject of property, Aeschylus' Orestes, as well as plays, poetry, legal texts and documents.

This seminar is limited to twelve students. Permission of instructors required.

FOREIGN STUDIESCURRICULUM STATEMENT: FALL 1973

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 languages at Hampshire can be obtained at the office of the Dean of the College, Science Building 118, or in Room 218 of Academic Building 1. For answers to more specific questions, the student should attend the Foreign Studies meeting scheduled at the opening of the fall term. The student may also at any time make an appointment to discuss these opportunities with Mr. Watkins by calling 542-4664 or by signing up at his office in Room 201 of Academic Building 1.

Of the Five College language courses, those offered on the Hampshire campus for 1973-1974 which can be announced at this time are the following:

## FS 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 542-4664. Course meetings are individually arranged with each student.

FS 250

## L'EXPRESSION LITTÉRAIRE: SENS ET CONTRESSENS

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 choix, 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'équivalence. Pour déterminer celle-ci, 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 et à celles qui ne sont pas disposés à respecter ce régime.

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

FS 210/310 THE USE OF THE COMPUTER IN FOREIGN LANGUAGE INSTRUCTION

James Watkins

The evidence shows that the computer can be a more effective instrument of learning than the textbook. It would then follow that its role should be well understood by those whom it will soon be serving.

This course is therefore intended for professional language teachers or for students planning to become language teachers. They will learn how to use PROFILE, a simplified author mode being developed by Hampshire College and the University of Massachusetts for generalized computer-assisted instruction.

No previous experience with computers is required or even desirable. Some knowledge of French will be needed to follow the examples used, but the model lessons subsequently developed by the student may be in the language of his or her individual competence.

The class will meet one evening a week for two and a half hours. Enrollment must be arranged by interview with Mr. Watkins (542-4664).

RESIDENTIAL LEARNING CENTER:  
EDUCATIONAL STUDIES

Coordinator: To be Appointed  
Student Representative: Peter Bloch

This Fall, a bold new approach to integrating the living and learning components of college life will be implemented by the Educational Studies development group. We will be bringing together most Divisions II and III students with primary interest in educational studies and/or teaching to live in one of the buildings of House III. We would work with a resident faculty coordinator to meet our needs, educationally and residentially. We will develop individual and group programs that have cohesion, evaluation, response, support, and flexibility build right into them, in the most stimulating and efficient way possible.

While planning is far from complete, these features seem likely:

- 1. We will need to attract about 25 students; the rest of the residence building will be filled out with our friends, the faculty coordinator, and his or her office.
2. The typical student's program will involve the equivalent of two courses within the Center, and one outside.
3. Activities of the Center will include core seminars, workshops, guest lectures, films, and individual work on concentrations and practice teaching. A number of the core activities will be open to the rest of the community.
4. The center room of the building will be used extensively for seminars and other core activities, for open houses, for a variety of public programs, and a small library and other collected resources.
5. We will need the commitments of the involved students as soon as possible to make residential and academic planning possible. That commitment will be for two thirds of the students time for the entire year.

The program that we are proposing for next year is decidedly experimental, and carries the risks that this implies. But in the many discussions thus far, it seems clear that it's well worth the minimal risks. The Residential Learning Center could invigorate the learning process for those students involved in educational studies.



HAMPSHIRE COLLEGE FACULTY  
SCHOOL OF HUMANITIES AND ARTS

Michael Benedikt, visiting associate professor of literature, is an accomplished poet, translator, and art critic. Among his published works are poetry collections *Sky, The Body, and Mole Notes*. He is also a regular contributor to *Art News*. He holds a B.A. from New York University and an M.A. from Columbia. He has taught at Bennington College and Sarah Lawrence College.\*

John R. Boettiger, assistant 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. Professor Boettiger will be on leave from Hampshire College for fall term 1973.

Van R. Halsey, 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.

Arthur Hoener, 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 design consultant for the Boston Society of Architects and the Boston Architectural Center. Professor Hoener will be on leave for the fall term 1973.

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

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

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

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

Jerome Liebling, 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, N.Y.

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

Robert A. Mansfield, assistant professor of art, received a B.A. from Saint Cloud State College, Minnesota, and an M.F.A. from the University of Massachusetts where he later taught. He was also on the faculty at Smith College. His interests are in sculpture, painting, architecture and three-dimensional design.

Robert Marquez, assistant 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 of 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 Maves, assistant 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.

Francis R. McClellan, assistant professor of dance, received a B.S. from the Juilliard School of Music and was a member of the Joan Kerr Dance Company and the Anna Sokolow Dance Company. She has studied with the National Ballet School of Canada and Hatha and Raja Yoga.

Randall McClellan, assistant professor of music, received his B.M. from the University of Cincinnati and his Ph.D. from the University of Rochester. He has taught musical theory and composition at West Chester State College, Pennsylvania, where he was also director of the electronic music studio.

James W. 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 symphonies, orchestras, laboratory and jazz bands, and chamber music ensembles, and is setting to music the poetry of Richard Brautigan.

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

Valerie Pilcher, assistant professor of Music, is the founder and conductor of the Hampshire College Chorus. She holds a B.A. from Smith College and an M.A.T. in Music from the Harvard Graduate School of Education.\*

Lawrence Pitkethly, assistant professor of history, has been a political writer and commentator for the 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-Marxian 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 Pratt Institute in New York City. He has been engaged in private practice since 1962.

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

Gladde Schrock, visiting associate professor of theatre, graduate from Manchester College in Indiana and received an M.F.A. from the School of Drama at Yale University, where he was later playwright in residence. He founded a professional summer stock company in Indiana, the Enchanted Hills Playhouse, and helped to establish the Long Wharf Theatre in New Haven, where he has acted, directed, and had a play produced.\*

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

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, directed federal community relations programs for Massachusetts, and has published as a sociologist, playwright, and novelist.

Eugene Torrey, 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 is completing his Ph.D. at the University of Massachusetts at Amherst.

## SCHOOL OF LANGUAGE AND COMMUNICATION

Emmon Bach, who will be visiting professor of linguistics in 1973-74, is currently professor of linguistics at Queens College at The City University of New York. 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.

David W. Kerr, assistant professor of mass communication, 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.

James H. 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 psycholinguistics and cognitive psychology. He has a joint appointment with the School of Social Science.

John J. LeTourneau, associate professor of logic, came to Hampshire from Fisk 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. Professor LeTourneau will be on a leave during the spring term 1974.

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 Talladega 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. Professor Marsh will be on leave during the fall term 1973.

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 director of the freshman English program at Syracuse University. His B.S. is from Purdue University and his Ph.D. is from Indiana University.

Richard L. Muller, 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. He holds a joint appointment with the School of Social Science.

Michael Radetsky, 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 doctorate at Berkeley. A Woodrow Wilson Fellow, his special interests are philosophy of action and philosophy of psychology.

Robert B. Rardin, II, 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. He will be on a spring term 1974 leave from Hampshire College.

Neil A. Scillings is assistant professor of psychology in the School of Language and Communication and the School of Social Science. He has a B.A. from Amherst and a Ph.D. in psychology from Stanford. His current research involves the semantics of natural language. Mr. Scillings is coordinator of the School of Language and Communication.

Janet E. 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 on social interaction patterns in rural and urban Serbia and has worked in an editorial capacity for the Kroeber Anthropological Society Papers.

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

Thomas Wasow, assistant professor of linguistics, holds a B.A. from Reed College in mathematics and a Ph.D. from MIT in linguistics. He has published several papers in transformational linguistics.

Christopher G. Witherspoon, assistant professor of philosophy, has a B.A. from Arkansas Polytechnic College and is currently completing his Ph.D. at the University of California at Berkeley. He was a Danforth Graduate Fellow and at Berkeley was a teaching assistant and fellow. He has taught at Knoxville College and at Berkeley.

## SCHOOL OF NATURAL SCIENCE AND MATHEMATICS

Herbert 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.A. is from Columbia University and his Ph. D. from the University of California at San Diego.

Merle 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 Gress Foundation. She is the author of several teachers' guides for elementary science studies.

Raymond P. Coppinger, 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 Four-College Ph. D. (Amherst, Smith, Mount Holyoke, and the University of Massachusetts).

John M. 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.

David L. Gay, associate professor of chemistry, is a native of Barbados. He 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. His special interest is in the mechanism of chemical reactions, as studies through the kinetics of those reactions. Under a National Research Council of Canada Fellowship he spent two years in the Council's High Pressure Research Group, prior to accepting a faculty appointment at Xavier College in Sydney, Nova Scotia.\*

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.

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. 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.

Kurtiss J. Gordon, assistant professor of astronomy, obtained his B.S. from Antioch College. He holds an M.A. and Ph. D. from the University of Michigan, and has been a research associate and visiting assistant scientist at the National Radio Astronomy Observatory in Virginia. He also studied at the University of Tübingen, Germany, and at Amherst.

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 special interest is the physics of electronic music. He served as the first Dean of the School of Natural Science and Mathematics at Hampshire.

Kenneth R. Hoffman, 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 1969-70.

David C. Kelly, assistant professor of mathematics, has taught at New College in Florida, Oberlin and Talladega Colleges, and Boston University. He holds a B.A. from Princeton University, an M.S. from MIT, and his Ph. D. is in progress at Dartmouth College. He directs an NSF summer program for talented secondary school students in natural science and mathematics.

E. E. Kriekhaus, visiting associate professor of biology, holds a B.A. from Williams College and a Ph. D. from the University of Illinois. He has taught at Yale, the University of California at Davis, and the University of Massachusetts. His current interests include the evolution of the nervous system and behavior, and the body-mind problem.\*

Nancy M. Lowry, assistant professor of chemistry, has a B.A. from Smith College and a Ph. D. from MIT. She has taught at Smith College and the Colley Dickinson Hospital School of Nursing in Northampton and has been a research associate at MIT, Amherst, and Smith. She has coordinated the chemical analysis laboratory as part of the Mill River Project in Northampton.

Lynn Miller, associate professor of biology, has taught at the American University of Beirut and at Adelphi University. He has a B.A. from San Francisco State College and a Ph. D. from Stanford. He has held post-doctoral fellowships in microbiology and at Stanford's Hopkins Marine Station and in genetics at the University of Washington.

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 *The Making of an Ex-Astronaut*. He has taught at Cornell University, San Francisco State College, the California Institute of Technology, and the University of California at Berkeley.

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 MIT 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.

James R. Sears, assistant professor of botany, holds a B.A. from the University of Oregon at Eugene and a doctorate from the University of Massachusetts at Amherst. His research interests include marine algae and physiological ecology; he has worked at the Marine Biological Laboratory in Woods Hole and the University of Massachusetts Marine Station in Gloucester.

Michael R. Sutherland, assistant professor of statistics, holds an interschool appointment in the School of Natural Science and Mathematics and the School of Social Science. He has been a consultant with the Systems Management Corporation in Boston and has worked on several problems involving applications of statistics to the social sciences. His B.A. is from Antioch College and his Ph. D. is in progress at Harvard University.

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 Lycoming College and at Earlham College, and is now Director and Professor of Biology at the Fakahatchee Environmental Studies Center in Goodland, Florida. His special interest is in tropical ecology, particularly the ecology of mangrove swamps. He was responsible for establishing and directing the program in Bahamian ecology at Earlham College.\*

Ann M. Woodhull, assistant professor of biology, has a B.A. from Swarthmore and earned her Ph. D. at the University of Washington. Her teaching experience includes high school mathematics in Nigeria as a Peace Corps volunteer and substitute teaching in the school system in North Haven, Connecticut. She is interested in doing behavioral research on prosimians and experiments with the control of protozoan movements.



SCHOOL OF SOCIAL SCIENCE

Richard M. Alpert, 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.

Carolee 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.

R. Bruce Carroll, Director of Field Studies and 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 ethnopsychology 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 J. Farnham, 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 her B.A. and Ph.D. from the University of Minnesota.

Monica L. 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.

Penina M. Glazer, assistant professor of history, has a B.A. from Douglass College and a Ph.D. from Rutgers University where she held the Louis Bevier 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. Click, 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.

Gayle D. Hollander, assistant 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.

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.

Gloria I. 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.

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

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.

Myron J. Lunine, Dean of the College and professor of political science, is interested in the political ideologies of both developed and underdeveloped nations, and in social issues such as "the good society." While holding teaching positions at the University of Colorado at Boulder, Pisk University, Kent State University, and the University of Istanbul, Turkey, he worked on academic organizational problems such as interinstitutional cooperation and honors programs. His B.A. and Ph.D. are from the University of Iowa.

David E. Metz is assistant dean for academic development and assistant professor of law. He received his B.A. from Brandeis University and his LL.B. from Harvard Law School. He taught law at the University of Liberia in West Africa as a member of the Peace Corps.

Lester J. Mazor, Henry R. Luce Professor of Law, has a B.A. and LL.B. from Stanford, served as law clerk to the Hon. Warren E. 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.

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 at Brown, and as a clergyman in Rhode Island. His most recent research and publications examine cultural change and modernization in Bali.

Richard Muller holds a joint appointment with the School of Language and Communication.

Anson Rabinbach, 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 anticipates a Ph.D. in 1973. He is interested in modern social and intellectual history with special emphasis on Central Europe.\*

Miriam Slater, assistant professor of history and Master of Dakin House, 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.

Neil Stillings hold a joint appointment with the School of Language and Communication.

Michael Sutherland holds a joint appointment with the School of Natural Science and Mathematics.

Barbara Turlington, associate dean of the college for academic administration 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 P. von der Lippe, associate professor of sociology was director of the National Institute of Mental Health graduate training program in the sociology of medicine and mental health at Brown University. He has also taught at Columbia University and at Amherst College. His B.A., M.A., and Ph.D. degrees are from Stanford University.

Stanley Warner, associate professor of economics, 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. Professor Weaver will be on leave from Hampshire College for A.Y. 1973-74.

Whitelaw Wilson, assistant dean for counseling and assistant professor of sociology, has been a psychiatric social worker in mental health clinics and family service agencies. He received his B.A. and M.A. in social work from Syracuse University.

Barbara B. 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.

\* Pending appointment by the Trustees of Hampshire College.

FOREIGN STUDIES

Seymour Pollock, visiting assistant professor of Spanish, 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, where he also holds a teaching position.

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