

**HAMPSHIRE COLLEGE**  
COURSE ANNOUNCEMENTS

**1970**

# HAMPSHIRE COLLEGE

AMHERST, MASSACHUSETTS 01002

## Course Announcements

Fall 1970

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# HAMPSHIRE COLLEGE CALENDAR 1970-71

## 1970

Residence hall opens	Saturday, September 12 (p.m.)
Fall session begins	Monday, September 14
Fall Colloquy	Monday, September 14 to Monday, September 21
Registration for fall courses	Saturday, September 19
Fall classes begin	Tuesday, September 22
Thanksgiving recess	Wednesday, November 25 at noon to Monday, November 30
Registration for January Term and Spring term courses	Wednesday, December 2 to Friday, December 4
Last day of classes	Saturday, December 19

## 1971

January Term	Monday, January 4 to Saturday, January 30
Spring term classes begin	Wednesday, February 3
Spring recess	Saturday, March 20 after last class to Monday, April 5
Pre-registration for fall courses	Monday, April 19 to Saturday, April 24
Last day of classes	Saturday, May 8
Reading period	Monday, May 10 to Saturday, May 15
Examination period	Monday, May 17 to Saturday, May 29
Graduation day	Sunday, May 30

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The Division of Basic Studies

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The courses described in the following pages, to be offered at Hampshire College in the Fall Term, 1970, are designed for the 251 first-year students who will comprise the College's first entering class. They are courses designed for Division I, the Division of Basic Studies. Here a word of explanation is necessary.

Students at Hampshire College progress in their studies through three consecutive Divisions: the Divisions of Basic Studies, School Studies, and Advanced Studies. The traditional designations for the four years of college--viz., the freshman, sophomore, junior, and senior years--are put aside. Work in the first Division will normally be completed by the end of the student's second year, though the time required may be longer or shorter in individual cases. From Basic Studies the student will progress to the Division of School Studies, and his undergraduate work will in every case be completed by studies in the third Division, the Division of Advanced Studies. Each of these Divisions marks a stage in the student's progress toward understanding and mastery of the subjects he chooses for study, and each of them has its own distinctive purposes and procedures.

A major purpose of these first Division courses is to give the student limited but direct and intense experience with the diverse modes of inquiry of Hampshire's three Schools: the School of Social Science, the School of Natural Science and Mathematics, and the School of Humanities and Arts. Two common courses in the first year, "Human Development" and "Language and Communication," will introduce all students to two subjects which we believe to be of great importance to the student's understanding of himself and of the world in which he lives. Each will involve common core readings and lectures as well as individual seminars taught by faculty members of the Program in Language and Communication and of the three Schools. The lectures, seminars, and workshops of this Division will not be the customary introductory survey courses. Students will come to close quarters with particular topics which bring to focus the characteristic concerns and procedures of thinkers and artists in various fields. Basic Studies are concerned not only with the variety of ways in which men may understand the world, but are designed also to acquaint the student with the skills of self-directed inquiry. Development of the desire and capacity for independent study constitutes a major objective of all work in Division I.

## The Division of Basic Studies

In the Fall Term and the Spring Term, each about twelve weeks in length, the student enrolls in three courses. Hampshire's departure from the usual practice of requiring enrollments in four or five courses reflects its conviction that the study of fewer subjects, by allowing the student to give more time to each, permits a closer acquaintance and a deeper engagement with each. (The average course will made a demand on the student's time of roughly fifteen hours per week.) Between the Fall and Spring Terms, the student engages in a single January Term project or course, to which he devotes all his time during the month.

Hampshire's curriculum will make provision for a wide variety of teaching-learning arrangements. In some courses lectures will be the chief mode of instruction. Others are organized as seminars, enrolling no more than 16 students. Frequent provision will be made for small discussion or workshop groups and for individual faculty-student conferences. Members of the faculty will select among these and other arrangements, singly or in combination, those which are best suited to the purposes of particular courses. Seminars and small group tutorials will be the preferred mode of instruction in the Division of Basic Studies.

At the end of each school year a one-week reading period and a two-week examination period bring faculty and students together in a variety of ways for evaluation of the student's progress in his studies. The examinations assess the student's readiness for more advanced work, enabling his instructors to determine the kinds of study he might best pursue to shore up his weaknesses and develop his strengths. A student's performance during this period determines his advance from one Division to the next.

In their beginning year students are advised to plan balanced programs which will give them an introduction to all Schools of the College as well as some initial depth in a single field. First-year students also enroll in the two common courses, "Human Development" in the Fall Term and "Language and Communication" in the Spring Term. At the end of their first year, students will be examined in these two first-year common courses, and in that School in which they have elected to take a full year's work (a course in both the Fall and Spring Terms). Examinations in the other Schools will normally follow second-year work in each.

The first-year common course which has been mentioned above, "Language and Communication," will introduce students to a field which may in time become the province of Hampshire's fourth School. In subsequent years, advanced courses in language and communication will be offered which will permit students to concentrate their studies around the nature and functions of symbol systems. This Program is briefly described following the descriptions of Fall Term courses.

The Division of Basic Studies

Another special section of this course bulletin describes opportunities for foreign language study at Hampshire--the study of French or Spanish during the regular terms or in intensive Summer Language Institutes, together with information about the special University of Paris program and Hampshire Certificate of Foreign Studies. This section, too, appears after the School course descriptions.

Richard C. Lyon  
Dean of the College

9/1/70

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The First-Year Course in Human Development

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The Human Development course, to be taken by all students during the first semester, will have two primary goals:

1. The student should become familiar with what we know of the biosocial influences on the development of man, not only as an individual but also as a social organism.
2. Within this formal framework the student will, in addition, have the opportunity to gain increased understanding of his own personal development.

The formal course will include one weekly core lecture for all students on Monday mornings, small group seminars, guest speakers, and movies. The core lectures will present a broad perspective of the roots of behavior, emphasizing man's role as a biological organism in a complex ecosphere and tracing the general pattern of individual development in our society as contrasted with personal development in other societies. After an introduction to the evolution of behavior and the nature of man's adaptive organ, the central nervous system, the lectures will be organized around the life cycle as characterized by Erik Erikson.

The core required readings are:

1. Erikson, Erik. Childhood and Society, Norton, 1964.
2. Ginsburg, Herbert and Oppen, Silvia. Piaget's Theory of Intellectual Development: An Introduction. Prentice-Hall, 1969.
3. Wooldridge, Dean. The Machinery of the Brain. McGraw-Hill, 1963.

In addition to the above readings, individual articles on anthropology, primatology, social behavior, and the nature of scientific research will be assigned.

Individual elective seminars will focus more narrowly and in more depth on a particular area of human development and will present a particular strategy for exploring these selected areas. Such strategies may be intuitive, analytic, or experiential; they may draw on the traditional disciplines of sociology, history, literature, biology, etc. Individual projects may develop out of the seminars or the "core material."

Frank Ervin, Chairman  
Committee on Human Development

9/1/70

## HUMAN DEVELOPMENT SEMINARS

Title and Instructor:	Registration Number:
Adult Socialization Robert von der Lippe	HD 101-F70 RVDL
American Literature and Culture David Smith	HD 105-F70 DES
Black Consciousness Eugene Terry	HD 107-F70 ET
Culture and Cognition Michael Cole	HD 110-F70 MC
The Development of the Political Self Gayle Hollander	HD 115-F70 GDH
Dimensions of Consciousness John R. Boettiger	HD 125-F70 JRB
Evolution of Humans Raymond Coppinger	HD 130-F70 RPC
Feminine Identity Lester J. Mazor	HD 140-F70 LJM
Human Sexuality Robert B. Rardin	HD 145-F70 RBR
Man in Nature David S. Roberts	HD 155-F70 DSR
Men, Microbes and Nutrition Lynn Miller	HD 157-F70 LM

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(Continued)



Human Development Seminars

Modes of Being Human: Philosophical Anthropology James C. Haden	HD 160-F70 JCH
On Woman Sheila Houle	HD 165-F70 SAH
Oppenheimer Everett Hafner	HD 167-F70 EMH
The Outsiders Penina Glazer	HD 170-F70 PMG
Perceptual Development: How does a child form an internal representation of the world? James Koplin	HD 173-F70 JK
The Role of the Individual in Social Innovation Barbara Yngvesson	HD 174-F70 BBY
Science and Eastern Thought Lawrence Domash	HD 175-F70 LD
Sigmund Freud and the Origins of Psychoanalytic Theory Louise Farnham	HD 178-F70 LJF
Utopian Thought and Practice, from <u>The Republic</u> to the Contemporary Commune Barbara Turlington	HD 180-F70 BT

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## 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 will include, for the core segment, works by George Herbert Mead, Charles Horton Cooley, Nevitt Sanford and Gordon Allport. For specific case materials, assignments will be required in Howard Becker, Blanche Geer and Everett Hughes, Making the Grade: The Academic Side of College Life; Julius A. Roth, Timetables: Structuring the Passage of Time in Hospital Treatment and Other Careers; David Mechanic, Students Under Stress: A Study in the Social Psychology of Adaptation; Robert A. Scott, The Making of Blind Men: A Study of Adult Socialization; Erving Goffman, Asylums: Essays on the Social Situations of Mental Patients and Other Inmates; Seymour Hersh, My Lai 4; and Orville G. Brim, Jr. and Stanton Wheeler, Socialization After Childhood. The course will meet for three hours, once a week. The format will include lectures, discussion, films, and field experience in a number of institutional settings--not the least of which will be the students' own life in Merrill House.

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Human Development Seminar  
Registration Number: HD 101-F70 RVDL

American Literature and Culture

David Smith

- form: weekly seminar meetings for entire group plus regularly scheduled tutorial meetings for individuals or small groups.
- object and method: development of critical methods of inquiry enabling students to identify and define literary qualities and problems and to distinguish them from cultural and social images. Exploration of a single theme--"Coming of Age in America"--exemplified in two literary genres (fiction and autobiography), and supported by corollary readings in theory of literature, literature and culture, human development. Readings will be general, non-technical, and concentrate on the theme of adolescence and youth-culture: Bettelheim, Erikson, Eisenstadt, Parsons, Denney, Keniston, Coles, Lifton, others.
- procedure: two introductory seminars, plus introductory small-group tutorials. Selection by students from a large list of American autobiographies and novels of "coming of age," as well as readings in theory of literature, sociology and psychology of adolescence. These items to comprise a term's reading list, with opportunities to amend, add, revise. This reading, and reports on it, will lead students to their own syntheses of theories of "literature and culture." The weekly seminars will have a common core of reading (e.g. a single novel and one or two essays for one week's meeting), and will encourage a group approach in discussion. Tutorials will address individual ideas, problems, projects. Some appropriate films and art work.

Examples of texts for the course: (not a final list):

autobiographical: Robert Lowell, Richard Wright, Malcolm X, Alfred Kazin.

novels: Faulkner, The Bear, Light in August, Shirley Jackson, Hangsamam, Hemingway, In Our Time, Ellison, Invisible Man, Salinger, Catcher in the Rye.

American Literature and Culture

Examples of texts for the course: (continued):

theory of literature: Wellek and Warren, Theory of Literature, Howard M. Jones, Theory of American Literature, Roy Pascal, Design and Truth in Autobiography.

adolescence (psychology, sociology): Erikson, Ed., Youth: change and challenge; Childhood and Society.

adolescence (literature): Witham, The Adolescent in the American Novel, Kiell, The Adolescent Through Fiction

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Human Development Seminar  
Registration Number: HD 105-F70 DES

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Black ConsciousnessEugene Terry

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An examination of black consciousness in terms of the picture of the Black man in White America generally and also in terms of how he has seen himself. The struggle of Blacks against the sub-human image assigned by White commentators and caricaturists will be studied in terms both of the changing self-consciousness of Blacks and the changing interpretation of Blackness by Whites.

A major theme of the course will be the historical fact that "black consciousness" as an observable phenomenon is much older than the recent general awareness of it suggests. It has, in effect, always been present in American culture, but it has undergone many changes in form during our history.

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Human Development Seminar  
Registration Number: HD 107-F70 ET

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Culture and CognitionMichael Cole

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This course will concern itself with the question of how people's intellectual processes are influenced by the cultural environment in which they are raised and in which they live.

Interest in cultural variations in cognitive processes ("cognition" is a general purpose word used by psychologists to refer to the processes such as perception, memory, and problem solving) is as old as man's contact with human groups other than his own.

Five centuries of speculation and serious scholarship have evolved three general positions regarding the relation between culture and cognitive processes: 1) there are fundamental differences in the intellectual processes of different peoples which are conditioned by experience 2) there are fundamental differences which are a function of race which in turn determines the cultural differences 3) there are no fundamental differences.

In spite of its long history, the problem of culturally conditioned intellectual processes has witnessed little headway in resolving the differences among the three basic positions. The class will explore how each of these positions came to be formulated and attempt to specify the kinds of new data and theoretical constructs which are needed to bring order to this confused domain.

The early part of the class will focus on the problem through a survey of anthropological, sociological and linguistic thought in the 19th and early 20th centuries. Readings will include Darwin, Spencer, Tylor, Boas, Levy-Bruhl, J.S. Mill and others. Then certain trends in modern anthropology and linguistics will be discussed to give the non-experimental approach to the study of thinking in its cultural context. Reading here will include Whorf, Havelock (Preface to Plato), Evans-Pritchard, and perhaps Levi-Strauss.

Finally, the role of the experimental method in clarifying the problems at issue will be discussed. The use of IQ tests in exotic cultural settings will be considered and then the seminar will consider the question of how a serious effort at the experimental assessment of differences in cognitive processes could be undertaken. The limited relevant psychological literature will be reviewed and criticized.

Culture and Cognition

There are two endpoints to this course. For some students the major value of the course will be as a case study in how the way we choose to ask questions shapes our answers to these questions. For others, it may in addition prove sufficiently interesting to motivate them to study these new, but potentially important fields in depth. I hope that for all students it is an interesting voyage through a significant area of Western thought.

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Human Development Seminar  
Registration Number: HD 110-F70 MC

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The Development of the Political SelfGayle Hollander

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This seminar will deal with the formation of the political self: the process by which an individual becomes acquainted with his community's political rules and expectations and comes to view himself in relation to the world of politics. Analysis will focus on such questions as: (1) How does the nature of the political system affect individual political learning? (2) What is the relationship between individual development and the process of learning about politics? (3) What are the relative functions of society's agents (the family, peer groups, formal institutions and organizations, symbols of state authority, etc.) in contributing to the political growth of its members? (4) How are the various dimensions of political involvement acquired? (5) How do historical events influence the future perceptions of individuals about political life? (6) What factors in individual and group psychology affect the formation and functioning of the individual as a political being?

In addition to the work of recognized scholars in the field of political socialization (notable among whom are Herbert Hyman, Robert Hess, Judith Torney, Fred I. Greenstein, and David Easton) the writings of psychologists (such as Stanley Milgram and Hans Toch), and of anthropologists (Oscar Lewis, Margaret Mead), as well as a number of biographical and autobiographical accounts (Wolfgang Leonhard, Erikson on Hitler and Ghandi, Bernadette Devlin, Malcolm X) will be examined.

The seminar will meet once a week for two and a half hours. Participants will be expected to draw from their own personal experiences, and to contribute to the presentation of additional materials, including the results of their own original research, to the seminar.

Members of the seminar may meet at times during the semester with Professor von der Lippe's class on Adult Socialization and with Professor Hollander's seminar on Sex Roles in American Society and Politics.

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Human Development Seminar  
Registration Number: HD 115 -F70 GDH



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Dimensions of Consciousness

John R. Boettiger

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The course will be designed as an experimental workshop to better understand some of the varieties of conscious experience to which men and women are led in their search for personal growth. Selections and emphases among various disciplines\* cannot be precast, but the methods and realms of inquiry from which the workshop will draw include:

- encounter and human relations training
- approaches to imagination, dream and fantasy experience, and play
- still and moving meditation
- sensory awakening
- body structure, images and movement, and their connections with the sense of self
- drugs and altered states of consciousness
- mythmaking, ritual, and religious experience

(\*It should be clear from such a list that "discipline" is here intended as something more akin to the Sanskrit term *Sādhana*--a liberating discipline pursued for the sake of the individual's spiritual development--than to the conventional academic sense.)

The course will move toward a synthesis of experiential, reflective, and analytic modes of work, with individual projects, small groups of two to six, and larger seminar sessions, directed at a better realization of the ways of human growth: freeing creative energies and exploring the potentialities of self-expression. Attention to the uses of drugs by students and others, it should be clear, will not extend to the experimental use of drugs in the workshop's activities. In addition to regular meetings throughout the term, one or two longer weekend sessions will be planned.

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Human Development Seminar  
Registration Number: HD 125-F70 JRB

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Evolution of Humans

Raymond Coppinger

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It is constantly surprising that most of our attitudes toward flesh and bone reflect a concept of original creation more than the reality of an organic evolution. The enzymes and hormones of human beings are real enough to medicine, but we are generally blind to man's role in nature, despite our wide and growing knowledge of other species. For example, we recognize specific courtship behavior in birds, but we ignore it in ourselves.

The idea of the seminar, then, is to explore the evolution of various taxonomic characteristics of homo sapiens, both anatomical and behavioral, with special reference to the development of individual behavior. Subjects of study are likely to include

- . . The Origin of Races
- . . Processes of Evolution
- . . Relevance of Sex in Primate Evolution

with readings in

Coon: The Origin of Races

Dun and Dobzhansky: Heredity, Race and Society

deBeer: Embryos and Ancestors

and popular interpretations of human evolution by Darwin, Audrey, Dubos, Lorenz and Morris. We shall also include religious and anti-evolutionary points of view in our study of the subject.

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Human Development Seminar  
Registration Number: HD 130-F70 RPC

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Feminine IdentityLester J. Mazor

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What difference does it make to a person's sense of self-abilities, personality, attitudes--that she is a woman? This seminar will pursue that question by examining the development of personal identity in American women. The goals of the seminar are to expose preconceptions about the meaning of femininity, to examine the process of gender differentiation, and to consider the consequences to both individuals and society of the existence of gender identity stereotypes. A pervasive theme will be the meaning of identity and the process of identity development, drawing upon material in the core readings for the Human Development course.

We will begin by attempting to bring to the surface our own image of the feminine and by surveying other members of the community to measure the extent to which our notions are widely held. Other cultures will be examined to determine the extent to which American concepts of femininity differ from those elsewhere. We will explore factors influencing feminine identity in the United States, such as child-rearing practices, educational modes, and advertising images.

Much of the material for the course will be drawn from our own experience and that of others whom we know well. We will draw heavily upon the literature of the women's liberation movement for information and hypotheses. We will also consider the theories of biologists, sociologists and particularly psychologists, including those working in the traditions of Freud and Jung as well as contemporary experimentalists.

The reading list will include Simone de Beauvoir, The Second Sex; Margaret Mead, Male and Female, and selections from a volume edited by Robert J. Lifton, The Woman in America.

To help us avoid being bound by the limitations of our own personal experience and the cold printed page we will invite women of different ages and backgrounds to participate in some of our sessions. We may also attend meetings of groups of women interested in these issues.

The seminar will seek to recognize issues facing the Hampshire Community which have a bearing upon the identity development of its feminine members and to suggest possible courses of action with regard to them.

9/1/70

Human Development Seminar  
Registration Number: HD 140-F70 LJM

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Human SexualityRobert B. Rardin

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The seminar will examine the role of sex in social organization, concentrating upon the factors contributing to the individual's understanding of restrictions and expectations imposed by our society. The various forces which influence the development of awareness within the individual of male and female sex roles will be examined; particular attention will be devoted to direct sources, especially the mass media, including Playboy, Ladies' Home Journal, Glamour, Seventeen, Readers' Digest, television commercials, current best-sellers, church publications, school textbooks, military recruitment propaganda, and female liberation materials.

The central questions to be posed throughout this investigation are the following: Do the forces focussed upon the individual aid in the realization of human potential? Do they exploit and damage the human personality? Do the sex roles currently projected by society inspire, or do they inhibit, human development? If the latter, what can be done to change current patterns?

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Human Development Seminar  
Registration Number: HD 145-F70 RBR

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Man in NatureDavid S. Roberts

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The first white man to see the Grand Canyon, a 16th Century Spanish explorer named Cardenas, cursed it as a nuisance, a great ditch blocking his way. After the first raft trip through the Grand Canyon in 1869, John Wesley Powell wrote in rhapsodic praise of the formidable grandeur of his surroundings. But for the average tourist today, the Grand Canyon is just another overpriced sideshow on his two-week tour of the Wonders of the West.

Why such a variety of responses to the same place? What, if anything, conditions the response? Can cultural prejudices so dominate a man's thinking as to determine what he sees when he looks at a tree or a flower? What is Nature, anyway?

"Man in Nature" will attempt to face these and other questions. A broadly historical approach will be used, drawing primarily on the resources of literature, science, and exploration. There will be no official reading list. Students will be expected to confront a wide variety of sources, ranging from poems to short field trips, but the heart of the course will be class discussion.

At the same time, students will be expected to undertake significant collateral reading of their own choice. Anything bearing (however obliquely) on the impact of Nature on man will be welcome. Each student will keep throughout the semester a journal or "idea book," in which he records not only his passing thoughts on the readings and classes, but also (especially toward the end of the semester) more serious attempts to synthesize his discoveries. The idea book will be submitted at regular intervals to the teacher, who will comment on it in writing. There will be no other formal requirements.

9/1/70

Human Development Seminar  
Registration Number HD 155-F70 DSR

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Men, Microbes and Nutrition

Lynn Miller

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The seminar might be subtitled "Biology from Beginning to End." We shall discuss briefly the well known pathogenicity and the industrial uses of some microorganisms. Then we shall concentrate on the still unknown activities of anaerobic microorganisms found in the human digestive tract.

Many lines of evidence show that the predominant (most numerous) microorganisms living in the mouth and alimentary tract of human beings are essential for the growth and continued well being of every man. However, most of these microorganisms are known only by their presence. Their activities (beneficial or harmful) are completely unknown.

Some of the questions we may wish to pursue arise from the current state of knowledge on the subject, which is far from the stage where even the questions themselves are easy to state. For example:

Men on very limited diets vary in their susceptibility to vitamin deficiency diseases. Is this difference due to the activities of different microorganisms established in the digestive tracts of man?

Many individuals whose diets contain refined sugar develop dental caries; others remain caries free. Do the microbiota in the mouths of caries-free individuals prevent the development of the disease state?

What changes occur in the microbiota of men during development from infancy to adulthood, and how do these changes affect that development?

The seminar will develop three kinds of activities:

- Learning to read, understand and criticize the literature on human nutrition.

## Men, Microbes and Nutrition

- Learning to look at, handle and cultivate the poorly understood microorganisms in our mouths.
- Devising strategies to communicate our knowledge to the wider community.

9/1/70

Human Development Seminar  
Register Number: HD 157-F70 LM

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Modes of Being Human: Philosophical AnthropologyJames C. Haden

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Beyond special studies of childhood, womanhood, negritude, and so on, lie studies of a more general nature, which are usually called philosophical. These are not similar to anthropology as an empirical science, but rather they attempt to work out in coherent detail certain insights into the human condition which are interpretive rather than descriptive. If the attempt is successful, then the resulting depiction of man and his activities is one which has enduring power.

This seminar proposes to take three specimens of this sort of thinking, and to explore them comparatively. The first is the eldest: the view of man and the trajectory of his life which is elaborated in tragic literature from Aeschylus to Unamuno and beyond. Here the emphasis is on the individual, and on a personal history set against a larger background. The second is that of Marx and Marxism, with its central intuition of man as worker and the theme of the dynamics of human society. The third is the philosophy of Ernst Cassirer, which draws on certain Kantian insights to work out a humanistic view in which man's symbol-making and -using powers are the key to his ability to construct his world as known and experienced.

9/1/70

Human Development Seminar  
Registration Number: HD 160-F70 JCH



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On Woman

Sheila Houle

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At this time in our society when our imagination and emotions are assailed by conflicting images of woman, from the Woman's Liberation devotee to the Playmate of the Month, it seems most appropriate that in the Human Development program we consider deeply what it means to be a woman in Western civilization. As we explore the concepts of woman that have developed in human history, we will necessarily study many facets of her being--intellectual, emotional, sexual, social, and religious. The basic materials for our work will be literary texts, including Biblical sources, classical drama, medieval verse, and modern literature; where pertinent, readings will also be drawn from contemporary psychology and sociology.

The course will operate on several levels for maximal benefit to the participants as individuals and as members of a group. Seminar sessions will involve the entire group in discussing the texts, while tutorials will allow small groups to pursue a topic of special interest to them (for example, the image of woman in contemporary film or a particular writer's attitude toward woman). Whether male or female, each participant in the seminar will have the opportunity to grow personally as his or her understanding of feminine nature is enhanced. The expression of personal reflections, experiences, and feelings will be an integral part of the seminar--in such possible forms as a journal, an essay, or a dance interpretation of a literary work.

9/1/70

Human Development Seminar  
Registration Number: HD 165-F70 SAH

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OppenheimerEverett Hafner

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J. Robert Oppenheimer (1904-1967) was a distinguished theoretical physicist of many accomplishments, especially as intellectual and spiritual leader within his profession. He led the development of modern theoretical physics in America. He created and led the laboratory at Los Alamos, where a complex technical effort produced the first nuclear bombs. As adviser to the post-war Government, he led many groups in grappling with the new problems raised by the birth of atomic energy. And as Director of the Institute for Advanced Study, he led the work of creative scholars in the sciences and the humanities. Oppenheimer possessed extraordinary gifts, of which the most conspicuous was a power, derived from profound personal resources, to comprehend and to reshape the intellectual climate around him. It was this gift that made him a hero to his students and an inspiration to his colleagues in physics. But it was also the gift that destroyed him: Oppenheimer made enemies who finally, in a humiliating and highly staged episode, brought him to his knees.

A study of the life of Oppenheimer is an opportunity for us to consider some aspects of the development of a scientist's intellect and interests. We choose him for this because, of all the leading figures in twentieth century science, his life is by far the most extensively documented. Oppenheimer himself was a brilliant essayist; his writing on the philosophical life of man is personal and, in a sense that is difficult to describe, tragic. There is also a vast and varied literature dealing with the personalities and events surrounding Oppenheimer's trial. It is here that we have a chance to review, with the most vivid of modern examples, all the great puzzles on the place of science and scientists in our culture. Finally, we can examine the life of our subject in the context of the long history of social tension in the growth of science.

One need not be a physicist to deal with the questions of human and social development that concern us here. We shall describe the main lines of Oppenheimer's science only to the point necessary for understanding his life. Students interested in the seminar should look at Philip Stern's The Oppenheimer Case (Harper & Row, 1969) which will be used as a principal reference.

Human Development Seminar  
Registration Number: HD 167-F70 EMH

9/1/70

The Outsiders

Penina Glazer

Most courses in American history have examined the development of institutions and groups which were in the mainstream of the society and have regarded those who were vigorous dissenters to political and social developments as deviants. Our purpose here will be to reverse this pattern by studying the "outsiders."

We will examine the antinomians who were dissenters in the Puritan society, the abolitionists and feminists in the 19th century, and the radical pacifists in the 20th century in order to understand their assumptions, their criticism of the existing social order, and their methods of seeking change.

Our analysis will focus on a wide variety of questions. What types of people were recruited to these groups? How did they come into contact with others of similar beliefs? How did their organizations give sustenance to their dissent in a hostile world? In what ways were their life styles affected by association with these movements? What compromises, if any, did they make to influence the larger society? What was the nature of their impact?

In addition to drawing upon a variety of historical sources dealing with the various movements, we will utilize the other body of social science and contemporary materials which deal with the role of the outsider and attempt to test some of the generalizations in the literature by applying them to the four major case studies.

9/1/70

Human Development Seminar  
Registration Number: HD 170-F70 PMG

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Perceptual Development:

How does a child form an internal representation of the world?

James Koplin

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A newborn baby has very few discriminative capacities--the world is little more than a blur. As his sensory and motor systems develop, he begins to organize the incoming information and also to initiate probes of his own. He performs experiments in order to establish that some things always appear together, that certain events always follow upon other events, etc. By the age of five or six a very sophisticated representation has been constructed complete with a symbol system (language) for talking about it.

In this course we will try to describe carefully what has been accomplished--and then spend some time on how it might have been done. Several sources will be used--ranging from anecdotal coverage such as in John Holt's book How Children Learn through the more formal accounts as represented by Piaget. Appropriate sections of standard psychological texts will also be utilized.

Special attention will be given to the methods that can be used (and the difficulties encountered) in trying to answer such a question. The methods used can be seen to depend upon some very basic assumptions about the nature of the human organism--and these assumptions should be made clear. Along with this analysis, the students may organize demonstration experiments as a way of gaining direct exposure to the problems.

The specific requirements and mode of conduct of the course will be worked out in consultation with the enrolled students during the first meetings.

9/1/70.

Human Development Seminar  
Registration Number: HD 173-F70 JK

## The Role of the Individual in Social Innovation

Barbara Yngvesson

This seminar will investigate certain aspects of the process of social reform concentrating specifically on understanding the role of individual innovators.

For purposes of the seminar, social reform will be considered as a series of transactions between the innovator and his socio-cultural environment. An aim of the seminar will be to achieve an understanding of the nature of this interplay and of the socio-cultural factors which structure the activities of the innovator and the response of the community in which he is active.

From an initial focus on the attributes of leadership, using Weber's On Charisma and Institution Building as a principal source, the course will go on to explore some of its different manifestations. Strategies of political and economic entrepreneurs in exploiting the possibilities for power acquisition in situations of inter-ethnic contact will be investigated using Barth's The Role of the Entrepreneur in Social Change in Northern Norway. The role of individuals in political and religious reform within other kinds of culture contact situations will also be investigated, using Wallace's work on The Death and Rebirth of the Seneca and Burridge's Mambu: A Study of Melanesian Cargo Movements in Their Social and Ideological Background.

The studies mentioned will be used as a framework within which an investigation of reformers active in our own society today can be pursued. Particular attention will be focused on the process of political reform as documented in Cox, Fellmeth and Schulz's book Nader's Raiders: Report on the F.T.C. and in Fellmeth's The Nader Report: The Interstate Commerce Commission.

The seminar will meet once a week for two hours.

9/1/70

Human Development Seminar  
Registration Number: HD 174-F70 BBY

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Science and Eastern ThoughtLawrence Domash

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This course will explore one main direction of Western thought (science, logic, analysis, cause-and-effect) in comparison with some dimensions of Eastern concepts of the world and man's place in it. Not a cultural history, the course will concentrate on understanding carefully a few selected examples of Eastern tradition from the point of view of an interested physical scientist.

## Topics include:

- The I Ching (Chinese Book of Changes). How could a scientist who believes the "laws of nature" also accept the use of an oracle? Readings in the work of C. G. Jung on the idea of "synchronicity," and in the physics of quantum mechanics and statistical thermodynamics. Also, similar considerations applied to astrology.
- Meditation and the concept of personal Liberation. The Bhagavad Gita. What is meant by the state of human "realization" of Vedantic and Buddhist writing? Comparison with scientific descriptions of mental states reached through conventional psychotherapy, and readings in recent medical research on physiological states induced by meditation. Discussion of drugs as machines.

Besides personal experience with The I Ching, students may have the opportunity, as an optional part of this course, to learn a simple but profound technique of Indian meditation taught through the Students' International Meditation Society.

9/1/70

Human Development Seminar  
Registration Number: HD 175-F70 LD

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Sigmund Freud and the Origins of Psychoanalytic Theory

Louise Farnham

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This seminar will be concerned with the contributions of Sigmund Freud; the origins and development of psychoanalytic theory will be related to Freud's maturing mind and temperament in a study of both his life and the growth of psychoanalytic theory. Freud's relationships with his family and his colleagues, his personal experiences and achievements, his aspirations and disappointments, will be studied as they influenced or were related to the development of psychoanalysis as a theory of personality, a method of treatment for disturbed patients, and as a research technique for the study of personality.

Reading for the seminar will include Ernest Jones' The Life and Work of Sigmund Freud, Letters of Sigmund Freud as selected by Ernst Freud, and various original works of Sigmund Freud. The latter will include parts of A Project for a Scientific Psychology, The Interpretation of Dreams, An Autobiographical Study, The Ego and the Id, A General Introduction to Psychoanalysis, Civilization and Its Discontents, and several case studies. Theoretical concepts to be emphasized include terms from Freud's dynamic, topographical, and economic descriptions of mental processes. The materials range from detailed treatment of concepts to more general theoretical works. Concepts to be studied include repression, anxiety, resistance, free association, unconscious motivation, guilt, the instincts, and psychosexual development, and mental "structures" such as ego, id, and superego.

The goal of the seminar is to facilitate understanding of the relationship, particularly intimate in this case, between the personal development of one man and his contributions to intellectual life of his era and to Western intellectual history. Freud's emotional and intellectual life and his work were in unusual accord with one another; the study of his biography facilitates and enhances the understanding of his theory. Peripherally, some familiarity with early developments in psychoanalytic theory will be achieved, thus providing background in a basic and important theory of personality and human development.

9/1/70

Human Development Seminar  
Registration Number: HD 178-F70 LJF

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Utopian Thought and Practice, from The Republic to the Contemporary Commune

Barbara Turlington

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What would the perfect society look like? How could it be attained? Can the form of the community encourage people to be "good"? What would one need to know about human beings and about society to plan a perfect state? These questions will be examined by this seminar which attempts to relate utopian thought and practice to theories of human development. The group will read and discuss theoretical and fictional works by utopian thinkers and their critics, and by political scientists, psychologists, and sociologists, concentrating on utopian theories of human nature and how it is shaped by society and on theories of training the young within certain kinds of communities.

Readings will include Plato's Republic, Skinner's Walden Two, works by Huxley, Marx, Mannheim, H. G. Wells, and Bettelheim, and specific criticisms of these writers (e.g. Popper, Krutch, Niebuhr), and studies of experimental communities past and present. Each member of the seminar will present a paper relating political and psychological theories of development to the practice of a contemporary or historical experimental community.

9/1/70

Human Development Seminar  
Registration Number: HD 180-F70 BT



## HAMPSHIRE COLLEGE

AMHERST, MASSACHUSETTS 01002

1 September 1970

To Students:

The faculty of the School of Natural Science and Mathematics have, in the curriculum now before you, brought into being the ideas about science that you have read in Hampshire College 1970. I refer you to that catalog for a brief description of our program (page 46) and a full account (pages 54 to 71). You should have those ideas in mind as you read the following material.

It is especially important that you understand what we mean by the terms Lecture, Seminar and Workshop. I have discussed this under the heading "Approaches to Science" on page 60 of the catalog. We expect you to choose the mode of study in which you work best, more or less disregarding the direction of your aims toward or away from science. In particular our seminars will appeal to you if you enjoy independent work, whether or not you expect to concentrate in the School.

Conspicuously absent from our plans are the conventional introductory courses in science and mathematics. We are not, for example, offering General Physics or any other formal survey of physical science. Instead, the principles of physics will be studied through their application to laboratory problems in optics (NS 125-F70). The same principles, with different perspective, will illuminate the workshop in radio astronomy (NS 180-F70) to be taught by an astronomer and a physicist. Basic chemistry, biology and mathematics enter our curriculum in similar ways.

We have grouped a set of five seminars under a general heading as a Program in Environmental Quality, with a single registration number (NS 110-F70). I urge you to look at the description of that program carefully, since it is unique in permitting you to enter the area of environmental studies without the need to commit yourself initially to a particular seminar. You may, if you wish, register for one of the five seminars within the Program at the time of initial registration. You will observe, incidentally, that the course in ecology is not a part of that program. Ecology is a pure science whose applications do not begin and end with the environmental problems of man.

Because of the unusual nature of our School, with its attempt to make science immediate and real for you, I urge you to think about these courses from a fresh point of view. Science and mathematics may have frightened, puzzled or bored you in the past; you may be apathetic or angry as you witness abuses of science in the name of progress; you may be unaware of the history of science as a tool for reshaping the present. If so, you have a natural place in the work of the School.

*E. M. Hafner.*

Everett M. Hafner

Dean

School of Natural Science and Mathematics

## SCHOOL OF NATURAL SCIENCE AND MATHEMATICS

Title and Instructor	Registration Number
Science Lecture Course: Cybernetics and the Brain Lectures: Michael Arbib Seminars: William Marsh and Staff	NS 101-F70 MA
Environmental Quality Program Lectures: Visiting Faculty Seminars:	NS 110-F70 RC
Campus Design: A Problem in Applied Ecology John Foster and Raymond Coppinger	NS 112-F70 F-C
Chemistry and Analysis of Pollutants Nancy Lowry and John Foster	NS 114-F70 L-F
Enzymes and Ecosystems John Foster	NS 116-F70 JF
Explosion and Control Everett M. Hafner	NS 117-F70 EMH
Waste Disposal: No Deposit, No Return Lynn Miller	NS 118-F70 LM
Law and the Environment: Studies in Public Decision-making (See School of Social Science, page 63)	SS 110-F70 C-R
The Man-Made Environment (See School of Humanities and Arts, page 81)	HA 135-F70 NJ
Seminar: Calculus Kenneth Hoffman	NS 120-F70 KH
Seminar: Light Lawrence Domash	NS 125-F70 LD

SCHOOL OF NATURAL SCIENCE AND MATHEMATICS

Seminar: Number Theory  
Kenneth Hoffman

NS 130-F70 KH

Seminar: Theory of Automata  
J. J. Le Tourneau

NS 135-F70 JJL

Seminar: Time  
Kurtiss Gordon

NS 140-F70 KG

Workshop: APL  
J. J. Le Tourneau and Staff

NS 150-F70 JJL+

Workshop: Ecology  
Raymond Coppinger and William Marsh

NS 160-F70 C-M

Optical and Radio Astronomy  
Courtney Gordon and Lawrence Domash

NS 180-F70 G-D

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Science Lecture Course: Cybernetics and the BrainMichael Arbib

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As life grows more complex, our concern for the world about us is matched by our concern for the world within our skulls. Just as we must try to understand the ways in which billions of people can cooperate in a fast-changing world, so must we understand the ways in which billions of brain cells can cooperate to wield the integrated activity that marks the intelligent human being. After an initial discussion of campus, communes and computers, placing our studies in the perspective of current social concerns, we shall focus on the ways in which computers and systems theory can help us understand the processing of information in the brain. Our field of study is called cybernetics.

Different animals have very different brains. We shall see how the different ecological niches of cat, frog and man can be related to different structures in their brains--and in the process we shall learn the basic vocabulary of neuroanatomy. Just as a computer processes data on the basis of its program, so shall we see how the "state" of a brain, a compound of heredity and experience, can influence the way in which an individual explores his environment and chooses his actions, while building in his brain an "internal model" of his world. This is the basis for memory.

We shall analyze computer metaphors for Piaget's study of mental development in children, suggesting ways in which programs for intelligent behavior can arise from the function of genetically specified brain structures. We shall then see how computers have been programmed to exhibit "intelligent behavior" in handling such things as logic and the game of checkers. We look also at clinical data on humans with brain damage, suggesting the study of "neuroheuristic programming" in which different aspects of information processing are correlated with different structures of the brain. Finally we assess the future contributions that information science can make to the study of brain function, and speculate upon the eventual contributions of such studies to ecological and sociological problems of man.

The Lectures will be given each Thursday evening and will be open to the public. We shall attempt to make the greater part of each Lecture self-explanatory. Students enrolled in the course will meet in a seminar once a week for further study with William Marsh and other members of the School.

Science Lecture Course: Cybernetics and the Brain

A Note on the Lecturer

Michael Arbib did his undergraduate work at the University of Sydney and his graduate work at MIT where he obtained the doctorate in mathematics. He is the author of many books and articles on topics relating to cybernetics. He visited Hampshire in the Spring of 1970 as one of a dozen distinguished lecturers on the general subject "Science in the Liberal Arts" in a preview of our Lecture courses in future years. Since then, Arbib has assumed chairmanship of the Computer Science Program at the University of Massachusetts at Amherst, and has accepted our invitation to devote one day each week of the Fall term to the Science Lecture Course at Hampshire.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 101-F70 MA

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Program in Environmental QualityRaymond Coppinger, Coordinator

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Most Americans are now aware of their rapidly deteriorating environment as an accompaniment of our expanding affluence, our neglect of air and water quality, our misuse of soils and other natural resources, our contempt for the survival of other species that share the planet with us, and our sense of priority in paying more attention to the advance of technology than to the unforeseeable dangers implicit in that advance. As one of Hampshire College's responses to the obvious need for study and action, we offer students an opportunity to join a Program in Environmental Quality, designed to give a general review of the problem and a selection of special areas of study. The five course descriptions which follow are the special areas in science and technology; two additional seminars, offered by the School of Social Science in "Law and the Environment" (SS 110-F70 C-R), and by the School of Humanities and Arts in "The Man-Made Environment" (HA 135-F70 NJ), are also included in this Program. We hope that the Program will later grow as a College-wide program, with the integration of further courses in the humanities and arts and in social science as well as in natural science.

Students interested in the Program but uncertain which of the special seminars they wish to take will register for NS 110-F70, with the understanding that they need not choose areas of special study until they are reasonably familiar with the full range of environmental studies. However, they may, if they wish, register for a particular seminar from the start. At the beginning of the term all students in the Program participate in a series of Lectures designed to cover the field broadly. During this period they also work with the faculty of the Program acting as advisers. Then, after three weeks of orientation, each student enters one of the special seminars for the remainder of the term. The student is expected to stabilize his role in the Program at that time, not moving from one seminar to another without approval of his adviser.

There is no course in ecology as such within this Program; we have decided to treat that subject in the regular curriculum of the School (NS 160-F70). The word "ecology" has unfortunately tended to become a synonym for man-made environmental crises, and even for political action. Ecology is, in fact, a branch of biology with as much application to the habits of wolves as it has to the habits of man. We want students to understand this when they register for courses in science.

Program in Environmental Quality

School examinations will reflect the work of the Program for students engaged in it. Students will be examined by the School in which their particular seminar is given.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 110-F70 RC

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Seminar in the Environmental Quality Program

## Campus Design: A Problem in Applied Ecology

John Foster and Raymond Coppinger

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The seminar will focus on one of Hampshire's important goals: to develop a campus where educational, esthetic and ecological designs support and enhance each other. There are many opportunities for students to examine the environmental problems of the College, and to participate in the development and implementation of its plans. The seminar is intended to formalize such interests, to stimulate similar activity in other communities, and to give at least some of our graduates an effective voice in the design of future communities.

As the College grows, our farmland will be put to a variety of new uses, each with its special impact on the ecology of the area. The first task of the seminar group will be to learn and use proper survey techniques for a comprehensive inventory of the present campus. We shall look at soils, vegetation, water resources, and man-made features. These data form a baseline against which future plans can be measured. Among the problems we might choose to study are:

- Building design and location in relation to woods, open space and other buildings.
- Experimental plantings: creation of forest borders, hedgerows, and other specific wildlife habitats.
- Location and design of roads and walks; alternatives to asphalt and concrete; alternatives to salt and plowing for snow control.
- Effective composting procedures for solid organic waste; recycling or disposal of nondegradable waste.
- Design and construction of microbiological sewage treatment facilities for the College.



Campus Design: A Problem in Applied Ecology

- Organic farming; biological insect control.
- Forest and woodlot management: protection of watershed and aquifer recharge areas.

The seminar provides an ecological complement to courses in architectural, urban and interior design. We expect that students in those activities will have opportunity to interact with us.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 112-F70 F-C

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Seminar in the Environmental Quality Program

## Chemistry and Analysis of Pollutants

Nancy Lowry and John Foster

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Except for radioactivity, all pollutants of our environment are chemicals, and to this extent the study of pollution is a problem in basic chemistry. It involves not only the interaction between molecules, but considerations of equilibria, solubility, ionization, reaction rates, and many other physical and chemical ideas. Methods of analysis for pollutants, and for treating chemical pollution form a natural subject in basic chemistry: the most effective controls, involving conversion of pollutants into harmless or useful substances, are engineering applications of simple chemical theory.

The seminar will focus initially on the chemistry involved in analysis of water quality. We shall survey a pond or a stream in the neighborhood of the College; we may then join with other groups to carry our studies further. We shall also pay some attention to the polluting effects of our own chemical laboratory, training ourselves to avoid unnecessary physical and chemical burdens on the community.

In addition to its experimental work and its studies in basic chemistry, the group will examine and discuss a set of related problems:

- The structure and biochemistry of pesticides,
- Chemical composition and control of exhausts from automobiles, aircraft and power plants,
- Photochemical smog,
- Nuclear chemistry in nuclear reactor technology,
- World-wide chemical pollution: DDT, CO<sub>2</sub>, Pb, Hg. . .
- Chemical warfare,

with each student choosing a topic for individual study.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 114-F70 L-F

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Seminar in the Environmental Quality Program

## Enzymes and Ecosystems

John Foster

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We now know something of how metabolic processes in cells are controlled--enough to begin explaining ecological behavior in terms of the properties of enzymes and the structures of cells. This is a new field, and the seminar offers students an opportunity to participate in developing it. Some of the basic ideas are contained in Dixon's two classic lectures on Multienzyme Systems, which will form a starting point for the course. They can be readily illustrated by some simple laboratory systems, using purified enzymes. These systems are also the basis of sensitive and specific analytical methods, which will be used to examine more complex systems such as the fermentation system which can be extracted from yeast. Students will become accustomed to thinking about enzyme systems as a whole, rather than as a collection of discrete biological reactions.

Having established these ideas, we shall have opened the way to the intriguing prospect of applying them to ecosystems in the field. The choice of problems will depend on the interests and backgrounds of the seminar group, and on the availability of field sites and laboratory facilities. We might typically study:

- adaptation to permanent changes in environmental temperature;
- adaptation to environmental extremes, such as high altitudes and deep water;
- oscillating biochemical systems, and circadian rhythms.

Students will be free to propose topics and projects of their own. Readings will come primarily from the research literature, together with general references such as Lehninger's Bioenergetics, Kormondy's Readings in Ecology, and Bonner's Control Mechanisms in Cellular Processes. A prior knowledge of biochemistry is not essential for this seminar, but it is a safe bet that a considerable amount will develop during the course.

School of Natural Science and Mathematics  
Registration Number: NS 116-F70 JF

9/1/70

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Seminar in the Environmental Quality Program

## Explosion and Control

Everett M. Hafner

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The seminar will be devoted to the study of problems in environmental physics with a special emphasis, as its title suggests, on the exploitation of nuclear energy. But that problem serves as metaphor in the study of many others (e.g., the growth and control of human populations) where it may eventually be found that the insights of physics are useful.

Without adequate warning, we face a complex set of environmental hazards created by rapid development of a technology made possible, in large part, by major discoveries in pure and applied physics. For example, a typical power-generating nuclear reactor sends into the environment, every second, as much radioactivity as man had been able to concentrate from natural sources in the first forty years of this century. At the same time, progress in biology is sharpening our sense of the danger which man-made pollution presents to the balance of life on Earth. Can physics, a principal contributor to the environmental crisis, play a crucial role in resolving it? That is the central question of the seminar.

We shall look at those elements of physics essential to any scientific discussion of the causes and cures of environmental problems. It is essential that we understand the concept of energy and the laws that govern its flow through natural systems. It is also essential to see how the principles of physics work in two ways: toward an explosion of our capacity for exploiting the resources of nature, and toward a sense of control based on our understanding of clear limits on how far we can go. And it is essential to know something of physical instruments, the science of measurement, and the design of experiments.

Students will specialize according to their interests in such problems as

- The increasing demand for energy conversion.
- Design and performance of fission reactors.
- Storage, transportation and dispersal of radioactive waste.

## Explosion and Control

- Power from nuclear fusion.
- The search for water supplies.
- Supersonic transportation.
- Infrared absorption in the atmosphere.
- Interstellar migration of large populations.

Facilities for laboratory and field work will be available. The reactor now under construction near Brattleboro, Vermont, will form a special focus of interest in field studies.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 117-F70 EMH

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Seminar in the Environmental Quality Program

Waste Disposal: No Deposit, No Return

Lynn Miller

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The subject of the seminar is a central issue in environmental studies. Solid, liquid and gaseous wastes are polluting our water with sewage and industrial chemicals, our air with products of combustion, and our landscape with mountains of discarded and unwanted material. Our local community, although still relatively clean, will be facing the problem with increasing concern for its future. The citizen of Amherst, no less than the paper mill operator in Holyoke, must decide what to do with his wastes.

There are two alternative answers in the traditional pattern of this question. The first is to dump wastes onto the commons (public water, air and land); the second is to put them back to useful work. Unfortunately for us now, the first alternative has tended to prevail throughout the world, even within the practices of what we call "public health." For example, the treatment of municipal sewage and the operation of paper mills produce tons of residue which can be converted by microorganisms into potentially useful organic forms. But we have usually chosen to burn the residue, or bury it, or add it to the burden of our waters.

In arriving at their course of study, members of the seminar will choose between sewage treatment and the dispersal of sulfite residues from paper production. They will then pursue a literature on the problem, examine it in the laboratory and in the field, and attempt to formulate and test a novel solution to the problem. They will record their findings for the sake of subsequent groups who continue the work.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 708-F70 LM

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Seminar

## Calculus

Kenneth Hoffman

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For some time now, calculus has been torn between the engineers and the purists--those who view it as a collection of tricks and techniques for solving "real" problems, and those who see it as a first step into topology, analysis, and other areas of abstract mathematics. Rather than attempt to develop a common synthesis for all, each student will explore aspects of the subject suggested by his interests and needs.

Possible areas of investigation are:

- The origins and evolution of calculus.
- The computer as tool for approximating solutions to problems.
- The long term behavior of dynamic systems in physics, biology and economics.
- Theoretical foundations of calculus, and mathematical generalizations of its structure.

The computer can be useful in all of these areas. Students will be able to learn and to apply relevant programming techniques in the course of the seminar.

Some students will already know something of calculus when they arrive at Hampshire. The structure of the course will be free enough to make their participation profitable to them and to others. They will be able to continue in this course at the point where their previous work ended.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 120-F70 KH

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Seminar: LightLawrence Domash

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The course has two aims: to give both nonspecialist and science-oriented students a physicist's understanding of a broad class of everyday and unfamiliar physical phenomena involving light, together with the personal experience of scientific research. Artists, photographers and others will gain a scientific understanding of the use of light as one fundamental material, and will become prepared to apply new techniques.

Most of the work consists of laboratory projects which students help to invent. Sample topics below include some real questions whose answers are not now known to the instructor. Readings will range from Newton's "Opticks" (1632) to unpublished current research on lasers and vision. Work will be self-paced according to individual students' background and motivation.

Color Fundamental understanding of electromagnetic radiation sufficient to study everyday phenomena of light and color in crystals, liquids, and the sky. Use of photography to study the difference between dawn and sunset, including the "green flash." Interference colors in soap and oil films. Why do fish scales look metallic? Why are bird feathers and flower colors so brilliant?

Light Waves A study of wave motion as a basis for understanding refraction, interference, birefringence and polarization of light. Laboratory work with coherent light. How do bees observe the polarization of skylight?

Human Vision and Color Vision, including theories of Isaac Newton and E. Land. Students design experiments to understand "Op Art" and Moiré patterns as they involve special physical characteristics of the retina. The retina-as-computer.

Lasers Basic physics of lasers, and student participation in a current project at the frontier of laser research. Students will be invited to invent light sculpture using lasers. Holography.

Student photographers will be able to apply their skill throughout the course.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 125-F70 LD



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Seminar: Number Theory

Kenneth Hoffman

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What are the integers? What is their structure; how do they behave? Questions about divisibility and representations of numbers have been asked for thousands of years, and some of the most beautiful results in mathematics have emerged.

The theory of numbers makes a good introductory mathematics course for several reasons. Many problems can be understood by anyone with a grade school education; no specialized mathematical training is required. Problems range from the easy to the (so far) unsolvable.

Students of an experimental or intuitive turn of mind will find that the computer can be used to generate large quantities of data from which patterns can be inferred and tested. (The programming techniques needed for this can be learned during the course.) There are many intricate and beautiful theorems for those who enjoy developing carefully reasoned proofs. Students with a background in calculus might find parts of analytic number theory stimulating and challenging. Other students might be interested in studying numerology and the history of number mysticism.

There will be no textbook and few lectures. The heart of the course will be the investigation of number-theoretic problems by students. Each will be free to pursue the aspects of the subject which intrigue him most, working at his own level. We should be able to accommodate students of quite different interests and abilities, to the mutual benefit of all.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 130-F70 KH

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Seminar: Theory of Automata

J. J. Le Tourneau

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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.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 135-F70 JJL

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Seminar: Time

Kurtiss Gordon

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Subjects for study will be chosen by members of the seminar interested in special aspects of the concept of time. Possible subjects:

- Time reversibility in physics.
- Entropy as the arrow of time.
- Radioactive decay as a long-term reliable clock.
- Mechanical, atomic and astronomical clocks.
- Time dilation and clock paradoxes in special relativity.
- Subjective-objective measures of time.
- Aging.
- Biological clocks.
- Time in the techniques of literature.
- Tempo and rhythm in music.
- Social and legal aspects of time.

The work of the seminar will consist of reading, laboratory studies, and preparation of original papers.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 140-F70 KG

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Workshop: APLJ. J. Le Tourneau and Staff

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APL, a programming language, lends itself beautifully to time-sharing computer systems on which people with a variety of backgrounds seek a variety of experience in solving a variety of problems in a variety of disciplines. The language is concise, quick to be useful, flexible, mathematically interesting, and growing in favor among computer scientists.

While learning the language, we shall attack problems of our own choosing where interest in solutions combines with appropriateness of the system (terminals linked to the University of Massachusetts time-shared CDC-3600 central computer) at our disposal. There are four levels at which users interact with the system:

- Nonprogrammed experiment and computation.
- Utilization of a stored library.
- Programming an assigned exercise.
- Programming an original problem.

They suggest, roughly speaking, the sequence of experience through which an individual may pass, at his own pace, while mastering the technique and forming his style. His work at the first level acquaints him swiftly with the fundamental conventions and capabilities of APL, and provides him immediately with a fast and versatile "desk calculator" for elementary computation. At the second level, he is free to list and edit programs in the library for his own education in technique. In programming an assigned exercise he will not have access to stored programs, but will instead devise his own algorithm. At the last level he will also be responsible for formulating and justifying the problem.

The techniques of APL are ideal for programming in mathematics, physics, astronomy, chemistry, geography and biology. We also work on problems in the social sciences (economics, psychology, geography, demography) and the arts of language and music. We encourage work on interdisciplinary problems, such as those arising in the study of human ecology.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 150-F70 JJL+

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Workshop: EcologyRaymond Coppinger and William Marsh

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Ecology can be learned at the top of Mount Washington, in glacial bogs, in the works of Thoreau, in the migration of the Mormons and in the cemeteries they left behind, from stone walls in a hemlock forest or from a sand dune struggling for existence in the North Atlantic. With the help of his instructors, each student will decide for himself how best to arrive at the general concept of ecology.

Our plans for the workshop include studies in settings such as those mentioned above. In addition, with regard to techniques for approaching the subject, we plan

- to study communities of microorganisms in the laboratory in order to control and measure important ecological variables, leading to the discovery of principles which can be applied in the field;
- to introduce ideas from mathematics and computer science in order to organize information gained in field and laboratory, and also to build speculative mathematical models of ecological systems.

One of the instructors is a biologist, the other a pure mathematician. Their discussions and disagreements will help students to evaluate the complementary strengths of careful empirical science and strict mathematical deduction. We expect students to use their experience in the workshop for examining their own assumptions and modes of inference. We also expect them to learn to evaluate arguments presented, often far too loosely, in books and articles on ecology. Good habits of thought are generally valuable; they are especially necessary in a subject as complex, controversial and consequential as ecology.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 160-F70 C-M

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Workshop: Optical and Radio AstronomyCourtney Gordon and Lawrence Domash

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An introduction to optical and radio astronomy, leading to current research issues in the origin and history of the universe, and including recent observations.

Radio astronomy is a relatively new science, exciting and intensely productive, in which experimental work of significance is possible at many levels of sophistication. Even the beginning student can grasp the conceptions, problems and techniques of radio astronomy while building a basic knowledge of other disciplines (physics, mathematics and optical astronomy) with which it is connected. The Five-College Department of Astronomy, whose programs and facilities we share, is developing staff and instrumentation in radio astronomy. It has under construction a meter-wave receiving antenna which, when complete, will be the largest such instrument on the continent.

Activities in the course will include readings, discussions, evenings of telescope observation and photography, and laboratory experiments with optical instruments and models of astronomical phenomena. Some possible topics:

- Pulsars. What are they? How far away? Studies will include stellar evolution, neutron stars and gravitational collapse. We shall analyze new raw data from radio observations.
- Observational astronomy. The use of telescopes to observe planets, star clusters, sun and moon. Measurement of solar rotation by sunspot photography. Use of the planetarium. Recording of meteor showers. Observed constellations.
- Studies of the solar system. Computer models of planetary orbits. Evidence from Apollo XI. Why is the rotation of Venus retrograde to the other planets?
- Problems in cosmology. Current theories and controversies of the origin and history of the universe. General relativity; recent evidence concerning cosmic black body radiation. Origin of the elements and their relative abundances.

Workshop: Optical and Radio Astronomy

Readings range from the elementary (H. A. Rey: The Stars; Life Nature Library: The Universe) through semipopular expositions (B. J. Bok and P. F. Bok: The Milky Way; D. H. Menzel: Our Sun; L. S. Shklovskii and C. Sagan: Intelligent Life in the Universe) to textbooks such as J. L. Steinberg and J. Lequeux: Radio Astronomy and P. W. Hodge: Galaxies and Cosmology.

9/1/70

School of Natural Science and Mathematics  
Registration Number: NS 180-F70 G-D

## HAMPSHIRE COLLEGE

AMHERST, MASSACHUSETTS 01002

September 1, 1970

Dear Class of 1970:

It is a pleasure in my capacity as Dean of the School of Social Science to send you these course descriptions. They represent quite accurately the tastes and interests of the scholars that created them. As I am sure you are aware, one of our most important experiments at Hampshire lies in the decision to use the Division I seminar course as the device through which students will learn the arts of scholarship in the Social Sciences so that they will be able to design a program of study in Division II and be capable of carrying it out with progressively decreasing need for supervision from the faculty.

It is important to understand the goals we have set for ourselves in offering you these courses. We want you to join us in working through a certain set of our literature. We are convinced that the task of comprehensive organization surveying the varieties of materials now produced in the Social Sciences, and deciding the proper order in which you wish to approach the literature, are all decisions and practices properly left to the individual student. Having said that, we also want you to understand that we see ourselves as your primary resource for working through your own sense of study. To this end, we encourage you to think constantly how what we are prepared to present to you may be related to those things that you would want most to learn. It is for this reason that this array of courses does not look very familiar to anyone well acquainted with course lists produced by colleges. It is important that our course sections be no larger than sixteen students, and of secondary importance that each individual be able to elect his first choice. Many of you will be asked to accept your second or perhaps even third choices, and we are confident that if you do so you will soon find yourself as deeply engaged as possible.

There are some aspects of our planning for Social Science seminars which are unique. We are currently at work planning opportunities for course assignments which will take you off the campus for brief periods of time. It is our hope that the study of the Social Sciences at Hampshire will involve increasing sophistication on the part of our students with the techniques of field observation and action research. We want our students to be well-grounded in this particular mode, and to be fully aware of the practical as well as ethical considerations which bear on its use. For this reason, the initial plans for Division I students may seem modest, but we feel they are basic. A second area

9/1/70

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(Continued)



Class of 1970  
September 1, 1970

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which we are planning to provide on a school-wide basis is training in the quantitative techniques now used by social scientists. Here we hope to provide a central core of instructional resources on which students and teachers may call as they need them in the pursuit of a particular topic. Both of these dimensions, field study and quantitative methods, are seen as practical arts for the Social Sciences which we want to make available constantly to our students and teachers.

Finally, we see our task as that of helping you learn how to plan, pursue, modify and complete a course of study in the Social Sciences that displays genuine competence with the material studied. It is this competence that you will display on your Division I examination, which admits you to further study in social science, or equips you to resume such study after you have left Hampshire.

We are looking forward to the first term and your joining us.

Sincerely yours,



Robert C. Birney  
Dean, School of Social Science

9/1/70

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SCHOOL OF SOCIAL SCIENCE

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Title and Instructor:	Registration Number
Behavior Genetics Louise Farnham and Lynn Miller	SS 101-F70 F-M
Conflict Resolution Barbara Yngvesson	SS 103-F70 BBY
Constitutional Law: Separation of Powers R. Bruce Carroll	SS 104-F70 RBC
Law and Social Control: Drugs David Matz and Robert von der Lippe	SS 105-F70 M-V
Law and the Environment Ray Coppinger and Kenneth Rosenthal	SS 110-F70 C-R
Political Justice Lester Mazor	SS 115-F70 LJM
Psychological Conceptions of Man Robert C. Birney	SS 120-F70 RCB
Psychology: What does it mean to "understand" a complex organism? James Koplin	SS 125-F70 JK
The Search for a Usable Past Penina Glazer	SS 130-F70 PMG
Sex Roles in American Society and Politics Gayle Hollander	SS 135-F70 GDH
Social Order Here and There Robert von der Lippe	SS 140-F70 RvdL
Ward Five: Seminar in American Party Politics Franklin Patterson and R. Bruce Carroll	SS 145-F70 P-C

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Behavior GeneticsLouise Farnham and Lynn Miller

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The study of behavioral genetics will focus upon the origins of individual differences in important human characteristics including intellect, personality, and psychopathology. Race and social class will be discussed as genetic constructs. The course will be concerned with the interaction of heredity and environment in determining behavior, although the contribution of heredity will be emphasized.

The study of basic methods and research results will include attention to such concepts as polygenic inheritance, single factor inheritance, threshold traits, reaction range, heritability, and selection pressure. Correlational methods, the twin method, and pedigree methods will be discussed as well as some methods which are limited to subhuman mammals. Mammalian analogs of human traits will be studied in the context of human variation; for example, genetic aspects of subhuman learning will be discussed in the context of individual differences in intellect.

Basic readings will be found in Dobzhansky's Mankind Evolving, Carter's Human Heredity, and Fuller and Thompson's Behavior Genetics. The reading materials will also include research articles and theoretical papers by such contributors as Vandenberg, Gottesman, Rosenthal and Kety, Kallman, and readings from Manosevitz, Lindzey, and Thiessen's Behavioral Genetics: Method and Research.

The principal goal of the course is to attain familiarity with the progress made in applying basic concepts from genetics to social science problems. Enormous advances in genetics in the past few decades have made possible the application of sophisticated methods to problems of behavior; to some extent genetic variation can be included as a general parameter in the study of behavior. The course also aims to facilitate integration of concepts from various disciplines concerned with behavior: material from the behavioral sciences, particularly psychology, will be linked with and related to concepts from the biological sciences by means of the methods, designs, and concepts of genetics.

The course will be jointly taught by a member of the School of Natural Science and Mathematics and a member of the School of Social Science.

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School of Social Science  
Registration Number: SS 101-F70 F-M

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Conflict Resolution

Barbara Yngvesson

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Using cross-cultural data, alternate forms of dispute settlement and their social correlates will be investigated. Material used will be drawn from studies of African, Latin American, and U.S. communities. Emphasis will be placed on the relationship of formal legal systems of protection and redress to informal social practices which achieve similar results.

The methodological issues of comparative analysis will be treated and the nature and usefulness of concepts derived from such analysis will be discussed. Perspectives gained from the comparative approach will be used to treat selected topics of social conflict now facing our society. Prospects for change in current practices will be assessed using the criteria of comparative analysis developed in the course.

Major sources will be Cardozo's The Nature of the Judicial Process, Hoebel's The Law and Primitive Man, and Nader's Law in Culture and Society. Monographic reading will include Gluckman's The Judicial Process Among the Barotse of Northern Rhodesia, Feifer's Justice in Moscow, and Nader and Metzger's Conflict Resolution in Two Mexican Communities.

Students wishing to pursue the topic further during January Term may plan to do so.

9/1/70

School of Social Science  
Registration Number: SS 103-F70 BBY

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Seminar in Constitutional Law: Separation of PowersR. Bruce Carroll

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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. Perhaps the most sensational came as a result of President Nixon's decision to send troops into Cambodia in May, 1970, which created according to some a constitutional crisis. Senator Fulbright strongly asserted that the President had exceeded his constitutional powers, that he had usurped the congressional prerogative. The President asserted that the Constitution clearly authorized him, as commander-in-chief, to take appropriate action to defend our national interests, and that the Constitution did not require him to consult the Senate. The Cooper-Church Amendment is the Senate's response to the President's position.

Similarly, the Senate's rejection of the President's nominees to the Supreme Court raised substantial questions - at least in the mind of the President - about the propriety, constitutionality, and wisdom of the Senate veto. The role of the Senate in the selection process of members of another branch, as well as that of the President in nominating those members, came under rigorous scrutiny, and again the charges of usurpation arose.

Whether or not the Constitution requires a formal Amendment to lower the voting age from 21 to 18 is currently a subject of much debate. The Congress thought that it did not, the President disagreed, but approved legislation so lowering the age in order immediately to test the law in the courts, and now the Supreme Court will be confronted with the resolution. At the least, this controversy will pit two of the branches against the third.

Seminar in Constitutional Law: Separation of Powers

This seminar will examine the basis of the differences, the constitutional doctrine of separation of powers using the Federalist Papers to establish the framework, Supreme Court decisions will be studied to determine the role of each branch of government in relation to the others. The seminar will conclude with a critical analysis of the utility of applying an 18th Century concept to the 1970's.

9/1/70

School of Social Science  
Registration Number: SS 104-F70 RBC

Seminar in Constitutional Law: Separation of Powers

This seminar will examine the basis of the differences, the constitutional doctrine of separation of powers using the Federalist Papers to establish the framework, Supreme Court decisions will be studied to determine the role of each branch of government in relation to the others. The seminar will conclude with a critical analysis of the utility of applying an 18th Century concept to the 1970's.

9/1/70

School of Social Science  
Registration Number: SS 104-F70 RBC

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Law and Social Control: Drugs

Robert von der Lippe and David Matz

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The seminar will examine a range of social responses to the violation of norms, spending a good deal of time on legal responses and contrasting them with other forms of social control.

The phenomena of drug use will be treated as a test case to evaluate and observe the differential efficacy of various social efforts at reform and control. Legal attempts to control drugs will be studied to determine the strengths, and limitations of law in and out of the courts. Of particular interest will be the place of institutional discretion in response to deviant behavior, and the relationship of a society's moral impulses to its enforcement systems.

The seminar will utilize the data and views generated by the study of drugs and their control to examine some prominent theories of social control and of the role of law. At the close, the seminar may attempt to design an appropriate response for a college community to take toward drug use.

The seminar will be taught by a sociologist (Mr. von der Lippe) and a lawyer (Mr. Matz). Some sessions will be held jointly, some apart. The major objectives will be to expose the students to both legal and sociological perspectives as they are applied to specific behavior. The course will normally meet for three hours, once a week.

Readings will include Deviance and Control, by Albert K. Cohen, and the Limits of the Criminal Sanction, by Herbert Packer. In addition to the readings, there may be observation of court and law enforcement practice.

9/1/70

School of Social Science  
Registration Number: SS 105-F70 M-V



Law and the Environment: Studies in Public Decision-making

(A Seminar in the Environmental Quality Program)\*

Ray Coppinger and Kenneth Rosenthal

The course is concerned with the process of decision-making by some governmental agencies in contemporary America. It involves the detailed examination of a few cases of decisions dealing with environmental matters. It will examine the thesis that the decision-making process under law, though sometimes defective, provides the means for effecting change in a complex technological society without destroying that society in the process. The course will be taught by a lawyer and a scientist. Cases will probably be chosen from among the following:

1. The Supersonic Transport: the real costs of the decision to build it.
2. The North Slope oil leases: decisions affecting the fate of the Alaskan economy and wilderness.
3. The Vahlsing Potato Company: to build or not to build a factory in Maine.
4. DDT in Wisconsin: to ban a pesticide.
5. The Center School Complex: a study in local decision-making in Amherst.

The course will address such questions as: Who decides? What issues are decided? What issues are never decided? What facts are known and who knows what facts are? What is the use of expert evidence, expert opinion? When is a decision made? How can a decision be changed?

The course will rely on scientific data, the documents of the three branches of government, and secondary sources of information which will be subjected to scientific and legal analysis. Whenever possible, the course will involve people who had roles in the decision-making process.

9/1/70

School of Social Science  
Registration Number: SS 110-F70 C-R

\* See School of Natural Science and Mathematics, p. 37

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Political JusticeLester Mazor

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This seminar will examine the use of the law and particularly the processes of the courts in the struggle over political power. The goals of the seminar are to establish some familiarity with the principal characteristics of a trial in a court of law, to examine the functions and limits of the trial process, to explore theories of the relation of law to politics and their relation to each other.

We will begin by examining the components of a conventional trial on a matter which is not highly charged with political consequence or emotion. The roles of the parties, their attorneys, witnesses, judge and jurors will be explored, and theories of the function of a trial will be considered. Attention will then shift to a number of notable political trials. The bulk of the course will consist of close study of each trial including the conduct of the defendant, prosecutor, defense counsel, and judge. We will also consider the nature of the myths which arise from a political trial and the functions that they serve. What political ends were sought and obtained and whether justice was done will be persistent questions.

The trials selected for examination will be drawn from a number of different legal systems so that comparisons may be made across boundaries of different cultures with their own particular types of law and government, concepts of justice, and styles of politics. Examples of the kinds of trials I have in mind are the Sacco and Vanzetti case, the trial of the Chicago 8, the Spock case, the Nuremberg trials, the trial of Daniel and Siniavsky, the Eichmann case, and the trials in South Africa of opponents of apartheid.

The materials for discussion will include transcripts of the trials and contemporary news accounts wherever possible. We will also read Koestler's Darkness at Noon and Kafka's The Trial. Each student will select a particular trial and become as expert as possible in all of its aspects. In some cases this may call for interviews with participants. We may also plan one or more programs to present a view of those trials which are of great current interest to an audience beyond the membership of the seminar.

We will plan to attend one or more ordinary trials as a group; students also are encouraged to attend court this summer if they can. If the occasion to attend a political trial presents itself during the seminar, we shall try to seize it.

9/1/70

School of Social Science  
Registration Number: SS 115-F70 LJM

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Psychological Conceptions of Man

Robert C. Birney

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The literature of the major personality theorists will be organized in a comparative manner to permit the appreciation of the value and limitations of each position. Preparation of the necessary skills of readership will be achieved with the use of units devoted to the basic concepts and methods of modern psychologists whose work contributes to each data source. The development of basic criteria for comparative use will also accompany the reading of each theorist. The aim will be to show how method, source of observation, and choice of language determines the utility of each theory. Direct experience with data collection and analysis will be used to provide experience with the uses of personality theory. The works of Freud and Murray, Lewin and McClelland, and Skinner will form the core reading with numerous sources dealing with basic concepts of psychology providing support.

The basic meeting times will be two-hour units meeting twice each week. The first period will be devoted to measurement, methods, and data processing with the second period concentrating on the interpretation of observations according to the theoretical position under study.

9 /1/70

School of Social Science  
Registration Number: SS 120 -F70 RCB

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Psychology: What does it mean to "understand" a complex organism?

James Koplin

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This course will examine the psychological aspects of the "understanding" referred to in the title, although these cannot be considered as completely isolated from biological and philosophical characteristics. In order to make this manageable, some restrictions must be placed on "psychology" and I would propose remaining within the two traditional core areas of perception and learning.

There are two very different approaches or points of view that dominate current psychological studies--behavioristic and cognitive. We will examine works from both camps in order to try to extract fundamental differences (or possibly to show that no such differences exist). The sources will include current textbooks in psychology as well as research articles published in journals.

Some time should also be spent examining the origins of this conflict. The work here may extend in several directions. I am particularly interested in an evaluation of contemporary psychology in the light of the view of the history of science expounded in T. S. Kuhn's The Structure of Scientific Revolution and also in the influence that the machines of a given era (from clockwork to computers) have on the form of psychological explanations of the same period.

Further delineation of the topics to be considered, the general conduct of the class, term requirements, etc., will be worked out in consultation with the enrolled students at the initial meetings.

9/1/70

School of Social Science  
Registration Number: SS 125-F70 JK

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The Search for a Usable PastPenina Glazer

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From the earliest histories written by the Puritans to the current challenge by "new left" scholars, historians have attempted to construct an image of the past which aids their understanding of American society. This course will study several of the major schools of history, and the relationship between the "historians" view of the past and their view of the present. How does this affect the nature of questions asked, the types of material utilized, and the ultimate interpretations?

Three case studies of current controversies in American history will be considered in order to analyze the influence of contemporary schools of thought on ongoing scholarship. Our aim is to increase our sensitivity to the limitations of "objective" scholarship, to enrich our awareness of the living quality which each generation injects into its past, and to improve our ability to analyze scholarly works perceptively and critically.

The case studies to be considered are:

a) the nature of reform: the case of the Populists

Were the Populists anachronistic dissenters who refused to face the realities of industrialization and progress? Were they men forced to bear the brunt of modernization, who pointed up many of the problems in the rapidly expanding free enterprise system? What kinds of questions do different historians ask in selecting their focus of research? How does this affect their interpretations?

b) the black and white view of the past: the Nat Turner controversy

There is a considerable amount of research currently being undertaken by blacks who believe that white historians have ignored and/or misinterpreted black history. Questions are now being raised whether or not it is possible for a white man to have the appropriate experience to recreate the history of blacks with accuracy and sensitivity. The recent novel by William Styron,

The Confessions of Nat Turner, was the subject of a serious controversy and ten black writers have published a response to Styron. What are the different perspectives offered by these writers? Is there a correct interpretation?

c) the role of violence in shaping the American past

Urban riots, rising crime rates, and political assassinations have resulted in a renewed interest and reinterpretation of violence. Presidential commissions, social scientists, and journalists have studied the problem. Historians, too, have begun to review the role of violence in the past. Several questions have emerged: Is violence as "American as apple pie" as H. Rapp Brown has stated? How important was the vigilante tradition or the use of violence by the state to control dissent? Or, is there currently an overemphasis on these "aberrations" in a country which some claim is notable for its absence of class conflict, its stable political system, and its fundamental consensus on major social and political issues?

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9 /1/70

School of Social Science  
Registration Number: SS 130-F70 PG

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Sex Roles in American Society and PoliticsGayle Hollander

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Proceeding from the assumption that the study of political behavior must be based on an understanding of cultural norms and values, the seminar will be designed to study the effects of sexual roles on political attitudes and modes of participation. Differences in social, legal, and economic status between men and women will be examined for their effects on political life. The relationship of variables such as education, urban versus rural residence, age, family and employment status, and military service to sex will be studied. Attention will be devoted to a comparison of the political socialization of the two sexes: the development of attitudes toward authority, feelings of personal efficacy, and the acceptable range of public behavior. Patterns of personal influence, voting, leadership, and Party affiliation will be surveyed. The general literature on political behavior will be used as a source; particular emphasis will be given to the growing body of material on the position of women in American society. Early feminist movements and the current Women's Liberation Movement will be studied.

Members of the seminar will be encouraged to contribute personal experience as well as do some original research on sex differences in political life. Approximately half of classroom time will be devoted to lectures and half to discussion. The last third of the semester's meetings will be devoted to presentation of individual work by participants in the seminar.

During the semester the seminar will meet jointly for individual sessions with the following other seminars:

Professor Hollander's The Development of the Political Self.  
Professor Mazor's Feminine Identity.  
Professor Rardin's Human Sexuality.  
Professor Houle's On Woman.

9/1/70

School of Social Science  
Registration Number: SS 135-F70 GDH

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Social Order Here and There

Robert von der Lippe

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This seminar will combine two general objectives: the introduction of sociology as a field of study and the exposure of Division I students to elementary social research methodology. For the accomplishment of the first objective, lectures and seminars will focus upon the concept of social organization and the specific elements of norms, roles, statuses, groups, associations, organizations and stratification. Readings will be assigned on each of these elements to be drawn from various reprint sources.

After each element has been studied, conceptually and empirically the students will design a research project to test for that element's presence in some population. More specifically on this latter point, students will learn the rudiments of how to construct interviews and questionnaires, do content analysis, engage in participant observation, draw samples, specify concepts, formulate hypotheses, and order and interpret data under analysis. They will begin by using themselves as subjects, then moving to their college population, and then finally to the surrounding community and its resources.

If the course is successful, the reasons for sciences of society will be self-evident by the end of the semester. In addition, however, a degree of expertise will be learned so that students can move on to Divisions II and III with some methodological sophistication both for their own independent study use and also for teaching such methodology to their fellow students.

The course will meet for three hours, once a week. The format will include lectures, discussions, films, and field experiences.

9/1/70

School of Social Science  
Registration Number: SS 140-F70 RvdL



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Ward Five: Seminar in American Party Politics

Franklin Patterson and R. Bruce Carroll

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This seminar will examine the structure and role of the American political party system. It will focus on questions such as party organization, operation, purpose, and will include intensive field work in the 1970 political campaign, principally in Ward 5 of the City of Holyoke. The seminar will conclude with consideration of some of the crucial political issues confronting the United States today and the ability of the American party system to contribute to the resolution of those issues.

9/1/70

School of Social Science  
Registration Number: SS 145-F70 P-C

## HAMPSHIRE COLLEGE

AMHERST, MASSACHUSETTS 01002

September 1, 1970

Dear Student:

Here in the first full course listings you will find a quite astonishing range of offerings for the Fall term. Remember this at the outset as you begin to plan your studies for Division I: the courses in 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 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 be given 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 lists 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 sixteen 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

Letter from Dean of H&A  
September 1, 1970

discussion table to some hands-on experience in the studio or out with field problems.

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."

Best wishes,

  
Dean Francis D. Smith

9/1/70

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## SCHOOL OF HUMANITIES AND ARTS

Title and Instructor:	Registration Number:
American Thought and Institutions Francis D. Smith	HA 101-F70 FDS
Exploratory Theatre Workshop Francis D. Smith	HA 105-F70 FDS
Film Workshop Jerome Liebling	HA 110-F70 JL
The Making of Contemporary Music Robert Stern	HA 125-F70 RS
A Man: <u>Albert Camus</u> James Haden and Sheila Houle	HA 130-F70 H-H
The Man-Made Environment (A Seminar in the Program in Environmental Quality) Norton Juster	HA 135-F70 NJ
The Popular Arts in America Estelle Jussim	HA 140-F70 EJ
Reason and Reality: God, Science, and Philosophy. James Haden	HA 145-F70 JH
Still Photography Workshop (Advanced Section) Jerome Liebling	HA 150-F70 JL HA 151-F70 JL
The Study of Literature Sheila Houle	HA 155-F70 SH
Time-Space Laboratory Arthur Hoener	HA 160-F70 AH

School of Humanities and Arts

Twentieth Century American Black Literature  
Eugene Terry

HA 163-F70 ET

Visual Arts Laboratory : Visual Fundamentals  
Arthur Hoener

HA 165-F70 AH

Advanced Seminar in Film and Photography  
Jerome Liebling

HA 301-F70 JL

9/1/70

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American Thought and InstitutionsFrancis Smith

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The cultural history of America. A study of the origins, nature and present tendencies of the cultural ideals, values, and institutions that shaped the history of the United States.

As the European whites attempted to dominate the North America mainland by the application of force, political organization, commercial enterprise and invention, they developed institutions as contradictory as a slave society and a constitutional democracy. In this course we will search closely what Melville would call "the inside narrative" of American history--i.e., the tensions and contradictions between ideal and fact in American life, and between dominant and minor cultural themes in various periods.

Special attention will be given to the biographies of those individuals and groups (like Jefferson or the Cherokee Indians) whose actions and fate make explicit some of the implicit assumptions of the American culture and raise to consciousness the unconscious forces that shape society in any age.

Specific topics for special study will include: the Puritan mind and its heritage; Constitutional law and revolutionary tradition; war and peace as instruments of national policy; the Presidency and the American political system; Racism and its consequences in contemporary America; and the "Intellectual" as a defined social role in America.

9/1/70

School of Humanities and Arts  
Registration Number: HA 101-F70 FDS

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Exploratory Theatre WorkshopFrancis Smith

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One seminar/workshop of ninety minutes each week, led by a professional Director. In 1970-71 John Ulmer, Artistic Director of Stage/West in Springfield, Massachusetts will lead the workshop. Some central problems of contemporary theatre will be explored. Theatre games, the role of the Director, theatre improvisation and Chamber Theatre are possible foci to be searched out and worked through. To the extent that the workshop students want to form a campus company, they will be directed that way. The emphasis throughout will be on the creative process in the theatre.

All course members will be provided with access to the production work of a professional community theatre in Springfield, and will have a chance to study at close range the way a professional company prepares for and manages its relations with the various community audience groups they must reach. The emphasis in this component will be problems of artistic validity and commercial production.

It is the intention of the visiting Director to provide regular opportunities for the students in the seminar to meet for discussion of theatre problems with cast members of particular productions, with the Producing Director of the company, and with high school and other community groups involved in special presentations.

This means a classroom/field balance of interests in the course, with the Stage/West theatre serving as a field site for some study and work and the School of Humanities and Arts under Dean Smith's direction serving as the campus study center.

9/1/70

School of Humanities and Arts  
Registration Number: HA 105-F70

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Film Workshop

Jerome Liebling

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The film as personal vision.

The film as collaborative effort.

The meaning of thinking visually and kinesthetically.

Film as personal expression, communication, witness, fantasy, truth, dream, responsibility, self-discovery.

The Workshop will be concerned with production and seminar discussion, field problems and research.

Topics to include:

History and development, theories of film construction, camera, director, editing, sound, narrative, documentary, experimental films, use and preparation, super 8, 16 mm, production.

The past 75 years has seen the motion picture rise to a position of International Language. It has transcended just the bounds of entertainment, to provide everlasting documentation of the world, its people and events. It has given added scope and incisiveness to every area of human activity. Our image and understanding of the world more often is gained through film and photographs than personal experience. The esthetics and techniques of a medium so broad in implication should be understood by all.

A \$15 laboratory fee is charged for this course. The College supplies equipment, special materials, and general laboratory supplies. The student provides his own film.

9/1/70

School of Humanities and Arts  
Registration Number: HA 110-F70 JL



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The Making of Contemporary Music

Robert Stern

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The thrust of this course will be performance. The amount of performance and the exact nature of the works to be read will depend, of course, on the skill and experience of the players. Contemporary music will be stressed, but earlier music will also be chosen, especially when cogent parallels with the 20th century can be drawn. Excursions into controlled chance performance will also be attempted, as well as electronic/live juxtapositions.

In addition to performance, the following areas will be examined:

- 1) "Two-musics" (Lukas Foss)
- 2) The idea of transcription, e.g., Bach-Webern as opposed to Bach-Carlos
- 3) Work in the Electronic Music Studio

9/1/70

School of Humanities and Arts  
Registration Number: HA 125-F70 RS

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A Man: Albert CamusJames Haden and Sheila Houle

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What is humanistic education for, if not for individuals? And if for individuals, it would seem to have to be, at some point or other, about individuals.

This course is conceived as an effort to take a true individual in his individuality just so far as this is possible, and to make it seem worthwhile to try to discover and to recognize that individuality. The world has produced and is still producing people of marked and powerful personhood; their names and fragments of their personalities have become embedded in human history and ideas, but academia normally prefers to take them in a partial, abstract, and dilute form. To cite a few diverse examples: Galileo, Abelard, Jefferson, Socrates, Michelangelo. These are people who are far more than the categories of artist, statesman, scientist, or philosopher to which they are customarily assigned. And in this "more" consists their individuality.

In this trial run of the foregoing notions, the person selected is Albert Camus. We are concerned with every facet of his life and work: not merely his literary production and his philosophical essays on man and society, but also his work as journalist, his notebooks, his personal relations with the Parisian intelligentsia, his efforts to be an honest man in dark times. And the purpose of all this is to try to use these to triangulate the Camus that eludes every category.

It will be possible, and indeed necessary for students in this course to take one or two of these facets for special, intensive study, but it will equally be vital for all to bring their discoveries and interpretations to the rest, so that all may constantly be asking what relations this facet has to that one. So the course will have to be an exercise in both individual and joint study, and we shall have to devise fitting methods of realizing this aim.

9/1/70

School of Humanities and Arts  
Registration Number: HA 130-F70 H-H

The Man-Made Environment  
(A Seminar in the Program in Environmental Quality)\*  
Norton Juster

This course is about the making and understanding of Human Environment - the cities and towns and places where people live--and the way in which human activities and needs find expression in forms that reflect their lives and values. It is concerned with perception, visual awareness, a developed sensitivity to surroundings, an understanding of place and a sense of the individual as an effective force in altering or creating his own environment.

It is primarily a workshop course, using research, analysis and design projects of a non-technical nature to investigate and uncover environmental problems and to understand the creative processes through which environment is made.

The subject of these investigations may include any one or number of the following:

- 1) Man--how he sees and senses his environment. His physical capacities and limitations. His functional and psychological needs as concern his environment--how he adapts and uses.
- 2) The physical basis of environment.
- 3) The study of urban form as it has evolved--patterns of settlement, planned and unplanned.
- 4) The environment today--the problems bequeathed from the past--the failure of technology--the dehumanized environment.
- 5) The approach to creating environment--the identification of human needs today--definition and analysis of the problems of urban design and factors which limit and effect it.
- 6) The vocabulary of environmental form and the aesthetics of environment. Visual thinking and visual communication.

(Continued)

9/1/70

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\*See School of Natural Science and Mathematics, p. 37

## The Man-Made Environment

7) The creative act--translation of program, perception and technical skill into urban form--the cooperative Art.

8) Future projections--the new environment.

While much of the work will require visual presentations and analysis, no prior technical knowledge or drawing skills are necessary.

9/1/70.

School of Humanities and Arts  
Registration Number: HA 135-F70 NJ

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The Popular Arts in AmericaEstelle Jussim

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What are the popular arts?... Are they solely the products of the mass media and commercialism?... Can the idea of hierarchies of aesthetic values be traced to definite historical origins?... Does "culture lag" influence the acceptance of the popular arts by the elite?... What is a mass audience?... Why do people go to specific types of films, or watch soap operas, listen to radio, read stereotyped literature, or follow the "funnies"?... Are there hidden psychic benefits to consumers of Kitsch and all commercialized culture?... How can we discover the implicit ideologies which the popular arts promulgate?... Do popular artists differ somehow from "fine artists"?... Is America surpassing ancient Rome in the brutality, violence, sexual sensationalism of its popular and mass shows?... Should we censor?... How may we use the insights of sociology, social psychology, and media analysis to enlighten our understanding of the functions and effects of the popular arts in America today?

These are some of the basic questions which this course will encounter. Students will seek their answers in the conflicting testimony of aestheticians from Susan Sontag to Clement Greenberg, sociologists and cultural historians from David Riesman to Ernest van den Haag. They will begin to decipher the artifacts of popular culture: films, videotapes, radio scripts, songs, cartoons, popular fiction, examining them as carriers of cultural ideas.

Participants in the seminar will have the opportunity of presenting multi-media programs to demonstrate their discoveries in content analysis, and will be encouraged to develop objective modes of conceptual inquiry.

9/1/70

School of Humanities and Arts  
Registration Number: HA 140-F70 EJ

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Reason and Reality: God, Science, and PhilosophyJames Haden

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We seem to be living in a time when there is an imperfectly articulated sense of uneasiness about reason and its work, and a trend toward disparagement of it. To parallel the long-standing attacks on "eggheads" and their ilk, there have sprung up magics and mysticisms, pseudo-sciences like astrology, and chemical modifications of the mind as replacements for older versions of rationality.

Some of the justification offered for this revolt against reason centers on a revulsion toward what is taken to be science and its works, which is identified with reason. That identification and rejection has its disadvantages when it prevents recognition of the many faces that reason can wear and has in fact worn.

Therefore the aim of this course is to explore some of the nuances of reason as they have been manifested in human history, in order to get a clearer notion of what is reasonable and what is not. Reason has always been considered to be our faculty for discovering and grasping reality; it is impossible to examine its workings without taking into account its inseparable connection with its objects, which are taken to be real. The very rejection of scientific reason and its objects entails both a new view of our faculty of knowing and of reality itself.

Given but twelve weeks, it is only possible to sample the range of human responses to the problem of reason and reality, but we will have a look at forms which include divinity and which exclude it, which draw on a diversity of tools and techniques: sense, language, logic, intuition, and so on, and which have styles that can be called scientific, or poetic, or philosophic, and which are drawn from different ages.

The actual content of this course will be somewhat flexible; there will be opportunity for any predominant interests and concerns of the students enrolled to enter into its conduct.

9/1/70

School of Humanities and Arts  
Registration Number: HA 145-F70 JH

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Still Photography Workshop

Jerome Liebling

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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, 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, lectures on history and contemporary trends in photography, and field problems to encourage awareness of the visual environment.

Some areas of concern:

Photography as fine art: the personal statement.

Photography in communication, education, inter-disciplinary experience.

The photographic project: research, procedure, presentation.

Photography as social archive.

Development of photographic esthetic.

Photography: History and Criticisms.

The middle area: photography-film, slide-show, mixed-media.

"A lesson for anyone -- to follow a great photographer, and look at what he shoots." Jack Kerouac

NB: There will be two separate Still Photography Workshops in this model. One will be reserved for students who have previously done some substantial work in photography; the other will be for students who wish to begin at the basic level. Students should consult with the instructor during Fall Colloquy about the appropriate level for them.

# Still Photography Workshop

A \$15 laboratory fee is charged for this course. The College will supply chemicals, laboratory supplies, and special materials and equipment. The student provides his own film and paper.

9/1/70

School of Humanities and Arts  
Registration Number: HA 150-F70 JL  
HA 151-F70 JL (Advanced  
Section)



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### The Study of Literature

Sheila Houle

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The course title is deliberately ambiguous as it is meant to indicate at once the concern in this seminar both with the nature of literature as verbal art and with the ideas about literature that men have had through the ages. Studying major literary theorists from Aristotle to contemporary British and American critics enables us to discover the range of questions men have asked about the nature and function of literature and to consider the adequacy of these concepts. Ultimately, such study should help us to clarify and expand our own ideas about literature and its value and to evaluate our own or another's theory of literature.

Learning to ask the right kinds of questions about literature, which is basic to any serious involvement with it, can be achieved in a variety of ways. In this course we will use seminar discussions of the readings, tutorials based on smaller groups' study of questions that particularly interest them (for example, one group might be considering the relationship between a poet's statement of his theory and his poetic practice), and individual efforts to articulate a personal statement of literary theory.

9/1/70

School of Humanities and Arts  
Registration Number: HA 155-F70 SH

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Time-Space Laboratory

Arthur Hoener

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The study of multi-media modes of conceptualizing. Experiments in physical and psychological "communicating" environments using graphic, typographic and photographic forms with concern for informational content. Emphasis upon the effects of light, time, space and motion.

To include theater games, stage presentations, slide tape presentations, and environmental studies.

This course will be graphics oriented (communications).

A \$15 laboratory fee is charged for this course. The College supplies tools, some chemicals and experimental raw materials. Most necessary personal art supplies will be stocked in the college bookstore or are available through local dealers.

9/1/70

School of Humanities and Arts  
Registration Number: HA 160-F70 AH

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Twentieth Century American Black Literature

Eugene Terry

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The emphasis in this course will be on the major fictional forms Black writing has taken in this century in America. The novel and the short story will receive particular attention.

Black literature will be read and studied as exemplifying in special ways the dynamics of literary form. There has been a notable tendency among critics of Black literature to underrate the study of form--for example, the classic form of Black autobiography, with its recurrent movement from despair to insight through successive attention to self, race and humanity. Examples of biography and autobiography will be studied in this perspective, as well as to understand better the general implications of Black literary themes, characters and styles for wider cultural questions of the relationship between literature and human history.

9/1/70

School of Humanities and Arts  
Registration Number: HA 163-F70 ET

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Visual Arts Laboratory : Visual Fundamentals

Professor Arthur Hoener

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Visual Fundamentals will be developed around basic visual principles that would provide the student with a working visual vocabulary.

Lectures will explore how various visual ideas have been used by the artist in his search for meaning. This course will involve the exploration of ideas and discovery, not simply problem-solving. Design process will be the major objective (i.e., how to go about studying visual things).

Areas that might be covered are:

- 1) Line as an expressive and organizational device.
- 2) Figure-ground relationships.
- 3) Shape and its archetypal context.
- 4) Color and its ambiguities... etc.

A \$15 laboratory fee is charged for this course. The College supplies tools, some chemicals and experimental raw materials. Most necessary personal art supplies will be stocked in the college bookstore or are available through local dealers.

9/1/70

School of Humanities and Arts  
Registration Number: HA 165-F70 AH

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Advanced Seminar in Film and Photography

Jerome Liebling

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A seminar-workshop course for advanced undergraduate and graduate students ready for supervised independent work in either film or still photography. The course will provide some balance between work on individual problems of study and seminar discussion of general problems common to all the film and photographic arts.

Limited to ten students. Permission of the instructor required for admission.

9/1/70

School of Humanities and Arts  
Registration Number: HA 301-F70 JL

## FOREIGN STUDIES

James Watkins  
Director of Foreign Studies

Languages: French, Spanish

Hampshire College sees as possible in the future of the Five College community the inception and growth of a center for international study.

To that end, it is making in its opening year three significant contributions:

The Hampshire College Summer Language Institutes.  
Distinguished linguists, directing the application of their own research in programmed learning and assisted by a group of exceptional teachers, will enable the apt student to acquire in eight weeks a proficiency equivalent to several years of high school and college instruction.

Basic to Hampshire education is the desire to bring students quickly into independent learning and self-teaching. Programmed instruction is precisely that, and the Institutes will form a center for perfecting materials designed expressly for self-teaching and a method which encourages to student to progress as rapidly as his own personal impetus allows.

The Institutes will begin in early July and last until the end of August. Overall cost of tuition, room and board will be \$800.

The Hampshire College Certificate of Foreign Study.  
A unique award confirming high academic achievement, the Certificate offers you the opportunity of earning endorsement, by official government standards, of professional competency within a chosen area of expertise. Our confidence in the selection of our students leads us to believe that many of them will want to add to their degree this proof of extraordinary ability.

A pilot program of home-based admission to the Université de Paris.  
Under this special arrangement you may apply to the University of Paris, be admitted, and prepare an individual plan of

## Foreign Studies

study facilitated by a professor of the Paris faculty acting as your advisor during your year in Paris. If you have never studied French before, your time for preparation need only be lengthened by one summer.

As you see, foreign language plays an important part in present and future planning for the College. You might then find it odd that we have set down no language requirement for entrance or graduation. This is simply because we recognize that not all students have the wish, the time or the aptitude to develop proficiency in language to a point of excellence where the effort made is fully rewarded.

Foreign language thus means to us, first, the mastery of another man's word. But mastery alone can be a game. Being able to conjugate a verb in Spanish, some will then play at conjugating it in French, then in Russian, then in Cantonese, then.... Now perhaps the compulsive conjugator is not all that bad. But he is a little like the perpetual sophomore, the sort who finds a permanent home in Basic Studies. To go beyond Basic Studies is to show purpose. And to show purpose in language is to use it, to add its depth to your perception of a field of study, whatever that field of study might be.

For that reason we were naturally led to choose French and Spanish as the first languages to be offered at Hampshire. In addition to their cultural richness, the importance of each as a world language is manifest. Joined to English, French opens for you most of the African Continent and Southeast Asia, Spanish most of the Western Hemisphere, and either language will open the Caribbean, where Hampshire will concentrate its area studies.

With this in mind, we did not wish to wait until the fall of 1971, when we shall have the graduates of our first Summer Language Institutes. Our continuing program in French and Spanish will therefore begin this September. Those of you who choose to study one or the other are encouraged to do so as an extra course added to your three regular courses.

The program is called "continuing" because it goes on from where the S.L.I. will have stopped, and for it, your language training should be equivalent to that of the S.L.I. graduate: let's say three years of high school--the last three years, we hope--during which the language was stressed much less as a province for literary analysis than as a means of communication and self-expression.

In the continuing program, you will have four hours weekly of class meeting. One hour will be lecture and discussion, correcting some of the errors, resolving some of the problems or helping you avoid some of the difficulties revealed during the previous week. The remaining three hours will be divided into two meetings, each one and a half hours in length. Here you will meet with your instructor in a small group of six. Part of the time will be devoted to an exercise plan, but most of it will be the result of your own design. You will be expected to take some oral part in every meeting. In one meeting out of two, you will be partly

## Foreign Studies

responsible for the entire class. In one meeting out of six, you will be largely responsible for the entire class, choosing the subject yourself and organizing the discussion. All of these meetings will of course be conducted in the language. Insofar as an average can be determined, you should be prepared to spend a total of ten hours weekly, in class and in preparation.

During the January Term, you may choose to undertake and complete an independent project in foreign language as defined through conversations with your instructor. This may be done as a full-time January Term project or in addition to a regular January Term project or course.

At the end of the year you may, if you so choose, have your proficiency tested and rated according to the scale established for government agencies by the Foreign Service Institute. A satisfactory rating for all skills will be described as "R(eading) 2" and "S(peaking) 2". Where active use of the language is necessary, this proficiency rating will be a recommended prerequisite for foreign study, area study, field work and other special programs.

Some students will follow the Continuing Program simply because they like foreign language study and wish to improve their skills in French or Spanish. It is hoped that others, however, will wish to put this proficiency to use as a subsequent part of their Hampshire curriculum. Foreign study can further your preparation for examinations in the various Schools and Divisions, while at the same time enabling you to test your ideas, style and opinions stripped of comfortable English rhetoric and disengaged from American immersion.

Foreign study can assume several forms as it is shaped to fit the individual student's purpose. Its highest form will be the Hampshire College Certificate of Foreign Study. Here, you will carry through during a year's study abroad a project which will have been carefully planned and approved by the School concerned and the director of Foreign Study. Upon your return, the project will be reviewed, your language proficiency again tested. The level required in both for acceptance will attest, by the Certificate, to your preparation for responsible employment and service abroad.



### The Program in Language and Communication

The Program in Language and Communication, an experimental beginning to what in time may become Hampshire College's fourth school, will offer courses and concentrations centered around the study of language and its uses. In order to study both natural and artificial languages, several increasingly active and interrelated fields will be drawn together to form the focus of the group's work. These fields include areas of mathematics (especially mathematical logic), computer and information science, linguistics, psycholinguistics and parts of cognitive psychology, and those aspects of philosophy directed toward the examination of language and man's dependence upon symbolic communication. In the usual undergraduate curriculum these studies are fragmented by departmental boundaries. Hampshire College hopes to establish a new area of undergraduate emphasis.

The first Language and Communication course, offered to all Division I students, will be given in the Spring term (1971). The course will begin with a three-week series of general introductory lectures followed by seminar work in roughly twenty topics. The topics will range from formal investigations of language and logic to considerations of mass media and visual communication. The student will choose one of these seminar topics for more intensive study during the last nine weeks of the term. The eventual list of seminars to be offered will be influenced by student interest. During the early weeks of the Fall term, the Language and Communication group will present more detailed information concerning the Spring course and the general program. (If you are especially interested in Language and Communication or feel the need for more information at this time, please write to J. J. Le Tourneau, Hampshire College, Amherst, Massachusetts 01002.)

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*rank, title, salary*

HAMPSHIRE COLLEGE FACULTY

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ROBERT C. BIRNEY is Dean of the School of Social Science and Professor of Psychology. Mr. Birney earned his bachelor's degree from Wesleyan University and his master's and doctorate from the University of Michigan. From 1954 until coming to Hampshire he taught at Amherst College. As Chairman of the Department of Psychology at Amherst, he served on the 1966 four-college consultative committee for Hampshire. He has published numerous articles and books on problems of motivation and learning and served as an editor of the Van Nostrand Insight Series, 1960-70. He collaborated with R. Grose and H. Coplin on a study of The Class of '59 at Amherst College, with R. Teevan on Readings for Introductory Psychology, and with H. Burdick and R. Teevan in their study, Fear of Failure.

JOHN R. BOETTIGER is Assistant Professor of History in the School of Humanities and Arts. A graduate of Amherst College, he later studied at Columbia University as a President's Fellow and Burgess Honorary Fellow. Mr. Boettiger has been a consultant to The RAND Corporation, served in the Office of the Assistant Secretary of State for International Organization Affairs, and in 1965-66 was a member of the Social Science Department of The RAND Corporation in Santa Monica, California. During 1966-67, Mr. Boettiger was a member of the Political Science and American Studies faculties of Amherst College. He is the editor of Vietnam and American Foreign Policy, published in 1968. He joined the planning staff of Hampshire College in 1967 and has had particular responsibility for the design and supervision of Human Development curriculum and the Hampshire Fellows Program.

R. BRUCE CARROLL is Director of Field Studies and Associate Professor of Political Science in the School of Social Science. He previously taught at Middlebury College and at Smith College, at both of which he directed their Washington summer internship programs. He received his Ph.D. from the University of Chicago where he held a Ford Foundation Fellowship on Intergovernmental Affairs. Long active in national politics, he is a participant in a Senate campaign and is presently academic liaison to the Policy Council of the Democratic National Committee. Mr. Carroll's academic interests are in constitutional law and public administration. His most recent publication is Cooperation and Conflict: A Reader in American Federalism.

#### HAMPSHIRE COLLEGE FACULTY

MICHAEL COLE is Visiting Associate Professor of Psychology in the School of Social Science. Mr. Cole received his B.A. from the University of California at Los Angeles and his Ph.D. from Indiana University. He held a Woodrow Wilson Fellowship, a Ford Foundation Foreign Area Fellowship, and a U.S. State Department grant as participant in the Cultural Exchange Program between the U.S. and the USSR. He has taught at Stanford University, Yale University, and the University of California at Irvine. He is presently Professor of Ethnopsychology and Experimental Anthropology at The Rockefeller University. He is co-author (with John Gay) of The New Mathematics and an Old Culture (1967) and (with I. Maltzman) of Handbook of Contemporary Soviet Psychology (1969), and author of innumerable articles in psychological and other professional journals. His special interest is in learning theory and communication skills, as these are manifested in different cultural contexts.

RAYMOND P. COPPINGER joined the Hampshire College faculty in January, 1970, as Assistant Professor of Biology in the School of Natural Science and Mathematics. Mr. Coppinger attended Iowa State College and holds a B.A. in American Literature from Boston University. He has an M.A. in Zoology from the University of Massachusetts and was awarded a Four-College Cooperative Ph.D. in Biology in June 1968. He has worked at a variety of scientific institutions, including the Woods Hole Oceanographic Institution, the Smithsonian Astrophysical Observatory in Cambridge, the Massachusetts Audubon Society, the United States Fish and Wildlife Service in Amherst, the Beebe Tropical Research Station in Trinidad, W.I., and the Organization for Tropical Studies in Costa Rica. He was a teaching assistant at Amherst College from 1965-68 and since 1968 has been a post-doctoral research associate in biology at Amherst. He has published several scientific papers on the behavior and reproduction of birds, and has been active in wildlife preservation efforts, as well as raising Siberian Huskies for dog sled racing.

LAWRENCE H. DOMASH is Assistant Professor of Physics in the School of Natural Science and Mathematics. He earned a B.S. in Physics and in Mathematics from the University of Chicago, and the Ph.D. in Physics from Princeton University, where he held a National Science Foundation Fellowship. Mr. Domash was a Postdoctoral Research Fellow in the Harvard University Department of Physics in 1967-68; from 1968-70 he was a National Research Council-National Academy of Sciences Postdoctoral Resident Research Fellow attached to the NASA Electronics Research Center in Cambridge, Massachusetts. His special interests include experimental and theoretical work in quantum optics and laser dynamics.

FRANK R. ERVIN is Visiting Professor of Psychobiology in the School of Natural Science and Mathematics, and Chairman of the Human Development Committee. Dr. Ervin received a B.A. from the University of Texas and the M.D. from the Tulane School of Medicine, where he was a Farnsworth Fellow in Psychiatry and

#### HAMPSHIRE COLLEGE FACULTY

(FRANK R. ERVIN continued) an Assistant in Psychiatry and Neurology. He is a Diplomate of the National Board of Medical Examiners and of the American Board of Psychiatry and Neurology. He has served as Medical Director and Psychiatrist at a number of hospitals and health centers. At present he is Director of the Stanley Cobb Laboratories for Psychiatric Research at Massachusetts General Hospital. Since 1958 he has taught Psychiatry at the Harvard Medical School. His major professional interests include the neurobiology of behavior, the evolution of bio-social control mechanisms, and computer applications to medicine. His numerous publications include articles on memory functions, conditioning, brain surgery, and two forthcoming books on The Brain and Violence, and The Biology of Violence.

LOUISE J. FARNHAM is Associate Professor of Psychology in the School of Social Science. Her B.A. and Ph.D. are from the University of Minnesota, where she held a teaching assistantship and a research assistantship in the Institute of Child Development. Mrs. Farnham has worked in child guidance and mental hygiene clinics in Minnesota and California, and has taught psychology at Yale University, San Francisco State College, and Stanford University. She has also served as Research Psychologist to the Family Law Project at the University of California at Berkeley, and held a post-doctoral fellowship at the Stanford University School of Medicine, Department of Psychiatry, from 1968-70.

JOHN M. FOSTER is Associate Professor of Biology in the School of Natural Science and Mathematics. He received his B.A. from Swarthmore College and a Ph.D. in biochemistry from Harvard University in 1954. He has been a Research Associate at M.I.T., and from 1958 to 1966 taught biochemistry at Boston University School of Medicine. He came to Hampshire College from the National Science Foundation, which he served as Assistant and later Associate Program Director of the Science Curriculum Improvement Program. Mr. Foster has a particular interest in biochemical control mechanisms, and in the development of biochemical approaches to environmental biology. He is a Fellow of the American Association for the Advancement of Science, and a member of Sigma Xi and the American Institute of Biological Sciences.

PENINA M. GLAZER is Assistant Professor of History in the School of Social Science. Mrs. Glazer has a B.A. from Douglass College and an M.A. from Rutgers University, where she has also received her Ph.D. degree in History. Her special interests are in American intellectual history; she has been studying radical left wing movements and thought in the United States during the 1940's. She is a member of Phi Beta Kappa and held the Louis Bevier Fellowship and a Teaching Assistantship at Rutgers. She also taught high school history for a year in New Jersey, and has served as reader and research assistant at Smith College and Harvard University. Mrs. Glazer is the author of a number of articles on the new left and student movements in the United States and Latin America.

#### HAMPSHIRE COLLEGE FACULTY

COURTNEY P. GORDON, Assistant Professor of Astronomy in the School of Natural Science and Mathematics, received her B.A. from Vassar College in physics and her M.A. and Ph.D. in astronomy from the University of Michigan. Mrs. Gordon held a summer job at the Royal Greenwich Observatory and worked at the University of Michigan as a research assistant and as a Teaching Fellow. From 1967 to 1970 she worked as Research Associate and then as Assistant Scientist at the National Radio Astronomy Observatory in Charlottesville, Virginia. She has published a number of articles in several astronomy journals.

KURTISS J. GORDON is Assistant Professor of Astronomy in the School of Natural Science and Mathematics. He holds a B.S. in physics from Antioch College; during the course of his study at Antioch he spent two semesters at the University of Tübingen and one year at Amherst College. Since April of 1969 he has been Research Associate at the National Radio Astronomy Observatory in Charlottesville, Virginia. His publications include articles in The Astrophysical Journal and the Quarterly Journal of the Royal Astronomical Society.

JAMES C. HADEN is Professor of Philosophy in the School of Humanities and Arts. He took a B.S. from Haverford College, and an M.A. and Ph.D. from Yale University in philosophy. He has taught philosophy at the University of South Carolina and at Yale University, where he served from 1956 to 1961 as Chairman of the Directed Studies Program in the liberal arts. He has been Professor of Philosophy and Chairman of the Department of Philosophy at Oakland University. During 1969-70, he was a visiting professor at Wesleyan University. Mr. Haden's areas of special interest include the history of philosophy, the history of science, Plato, Kant, and Maupertuis. He has published essays in the history of science and translations of Kant and Cassirer.

EVERETT M. HAFNER, Dean of the School of Natural Science and Mathematics, is a physicist with particular research interests in primary cosmic radiation, astronomy, and exobiology. Mr. Hafner received his B.S. degree from Union College and his Ph.D. from the University of Rochester. He was Associate Physicist with the Brookhaven National Laboratory, a National Science Foundation Fellow at Cambridge University, and was on the faculty at Rochester from 1953 until coming to Hampshire in 1968. He also served as Staff Physicist with the Commission on College Physics from 1964 to 1965. Mr. Hafner has worked with the 130" cyclotron in studies of scattering at high energies. He then shifted his interest to the search for high energy gamma radiation in cosmic rays. Shortly before leaving Rochester he worked at the Mees Observatory on optical studies on the recently discovered pulsating radio sources. He is a member of SIPI (Scientists' Institute for Public Information).

#### HAMPSHIRE COLLEGE FACULTY

VAN R. HALSEY, Jr., Director of Admissions and Associate Professor of American Studies, School of Humanities and Arts, is a graduate of Rutgers University and has an M.A. in English from the University of Rhode Island and a Ph.D. in American Studies from the University of Pennsylvania. He was Associate Director of Admission and Assistant Professor of American Studies at Amherst College from 1956 to 1969. He is Chairman of the Committee on the Study of History concerned with teacher training and the production of new history materials for secondary schools. He recently completed a term as President of the New England Association of College Admissions Counselors and has served a three-year membership in the Corporation of the Education Development Center, Incorporated.

ARTHUR HOENER joined the Hampshire faculty in July, 1970 as Professor of Design in the School of Humanities and Arts. Mr. Hoener has been chairman of the Design Department at the Massachusetts College of Art from 1960 to the present. He taught art at Boston University from 1957-60. He holds the B.F.A. and M.F.A. degrees from Yale University, and has also received a certificate from Cooper Union in New York and has studied at the Hans Hofmann School of Fine Arts and the Brooklyn Museum. His sculpture and design work has been shown at numerous exhibitions and he has had one-man shows in New York City, Boston, Rhode Island, Texas, and Connecticut. He has served as a judge at many art exhibitions and has lectured widely at colleges and art association conferences. He has served as moderator of the WGBH-FM discussion program on art, "Studio Talk." He is the designer of the photo murals in the new Boston subway stations, and his other public and environmental design work has been as graphic design consultant for the Boston Society of architects, the Boston Architectural Center, and Honeywell Electronic Data Processing.

KENNETH R. HOFFMAN is Assistant Professor of Mathematics in the School of Natural Science and Mathematics. Mr. Hoffman received a B.A. in mathematics and physics from the College of Wooster in Ohio and an M.A. from Harvard University, where he served for two years as a Teaching Fellow and also held a Danforth Fellowship. He taught mathematics at Talladega College under the Woodrow Wilson Intern program in 1965-66, and returned there in 1967. He served as Chairman of the Department of Mathematics at Talladega in 1969-70.

GAYLE D. HOLLANDER is Assistant Professor of Political Science in the School of Social Science. Mrs. Hollander received a B.A. in Russian Studies from Syracuse University in 1962, an M.A. from Harvard in 1964, and a Ph.D. in political science from M.I.T. in 1969. She has been a research assistant and staff member in the Center for International Studies at M.I.T., a Visitor in the Russian Research Center at Harvard, and a consultant for the George Washington University Project on Soviet-American Cultural Exchanges. She was Visiting Instructor in Political Science at Mount Holyoke College in the spring of 1969. In 1964-65 she served as a Foreign Service Officer (temporary) for the United States Information Service, stationed in the USSR. Mrs. Hollander has published articles and monographs on Soviet communication, and is revising her dissertation, on political indoctrination in the Soviet Union during the post-Stalin period, for publication.

#### HAMPSHIRE COLLEGE FACULTY

SHEILA ANNE HOULE is Assistant Professor of English in the School of Humanities and Arts. Miss Houle holds a B.A. in English from Mundelein College in Chicago. Her M.A. is from the University of Minnesota in English, and her Ph.D. in English language and literature was awarded by the University of Iowa, where she was an NDEA Fellow from 1964 to 1967. She taught English and linguistics at Clarke College from 1960 to 1964 and has been chairman of the English Department at Clarke from 1967 to the present. She is a member of the Committee on English Departments in Liberal Arts Colleges appointed by the Association of Departments of English and a founder and mid-western director of the Iowa Association of Small College Departments of English. From 1954 until 1970 she was a member of the Sisters of Charity of the Blessed Virgin Mary, from which she has now received dispensation of her obligations.

ESTELLE JUSSIM is Assistant Professor of Communications Media in the School of Humanities and Arts, with a joint appointment as Associate Director for Media Resources and Services. After receiving her B.A. from Queens College, she worked for twelve years as art director, graphic designer and exhibition consultant. She recently earned the doctorate from Columbia University, with a specialization in the history and philosophy of the graphic arts and communications media. She will teach courses in the Popular Culture and Mass Media curriculum, and serves as Director of the Display Gallery. Her most intense interest is in the interconnections between technology and culture, and in the role of media in shaping national character.

NORTON JUSTER, Visiting Associate Professor in Design in the School of Humanities and Arts, is a practicing architect, designer and writer, as well as Adjunct Professor of Design at Pratt Institute. He has worked as a Designer on projects at Hunter College, New York University, Jersey City, and Kennedy Airport, and on many other residential and park projects. Mr. Juster graduated from the University of Pennsylvania, at which he won a number of scholarships and prizes, including the Silver Medal of the American Institute of Architects. He studied city planning at the University of Liverpool on a Fulbright Scholarship. He is the author of several books, including The Phantom Tollbooth, a children's fantasy, and The Dot and The Line, a mathematical fable later made into an Academy Award winning animated film. He has also written for television and motion pictures, and has recently been working under a Ford Foundation grant on a children's book about cities. His special interests are in the understanding and perception of the human environment.

JAMES KOPLIN is Associate Professor of Psychology in the School of Social Science and in the Program in Language and Communication. He received his B.A., M.A., and Ph.D. in Psychology from the University of Minnesota. Mr. Koplin has taught at the University of Minnesota and at Vanderbilt University. He is the author of a wide range of articles in professional journals, and co-editor of Developments in Psycholinguistic Research (1968). His special interests are psycholinguistics and cognitive psychology.

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J. J. LE TOURNEAU is Assistant Professor of Mathematics in the School of Natural Science and Mathematics. He received his B.S. from the University of Washington, and his Ph.D. in logic and the methodology of science from the University of California at Berkeley. He came to Hampshire from Fisk University, where he was Assistant Professor of Mathematics. He has taught at the University of California at Berkeley and was a mathematics consultant to the Berkeley public schools. Mr. Le Tourneau has held four National Science Foundation graduate fellowships, as well as a fellowship at the University of California. His research interests include model theory, recursive function theory, decision theory, and automata theory. He is interested, as well, in linguistics, computer languages, the philosophy of mathematics, and elementary school mathematics curricula. He has published articles in the Proceedings of the American Mathematical Society and the Journal of Symbolic Logic.

JEROME LIEBLING joined Hampshire in January, 1970, as Professor of Film Studies in the School of Humanities and Arts. He has taught art at the University of Minnesota since 1949. Several of his films have received awards, among them "Art and Seeing" (first Annual Screen Producers Guild Award to University Films) and "Pow-Wow" (from the San Francisco International Film Festival, the Educational Film Library Association, the London Film Festival, and others). He has held many one-man photographic exhibitions, including exhibitions at the New York Museum of Modern Art and the Walker Art Center in Minneapolis. He has published a number of articles and collections of photographs and a book entitled The Face of Minneapolis. He received a Certificate of Recognition for Photographic Excellence from the National Urban League for photography to be included in the exhibition entitled "America's Many Faces."

CHARLES R. LONGSWORTH is Vice-President of Hampshire College and Secretary of the Board of Trustees. He was Chairman of the Hampshire College Educational Trust which undertook the initial organization of the College in 1965. For five years he served as Assistant to the President of Amherst College. Previous experience was with Campbell Soup Company and Ogilvy and Mather, Incorporated, the New York City advertising firm. Mr. Longworth is a graduate of Amherst College and of the Harvard School of Business Administration.

NANCY N. LOWRY is Assistant Professor of Chemistry in the School of Natural Science and Mathematics. She has a B.A. from Smith College, attended Radcliffe College where she was a Teaching Fellow, and earned the Ph.D. from Massachusetts Institute of Technology where she was a Research Fellow, and a National Institutes of Health Predoctoral Fellow. Mrs. Lowry has served as a Research Associate at M.I.T., Amherst College, and Smith College. She has taught at Smith College and the Cooley Dickinson Hospital School of Nursing in Northampton. She has published a number of articles in the Journal of Organic Chemistry and the Journal of the American Chemical Society. Her special research interests are in the synthesis and properties of unsaturated conjugated hydrocarbons and the stereochemistry of free radicals. In addition, she is interested in the scientist's and educator's role in approaching the problems that face the general public, such as those in environmental science. She is the mother of three children.



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RICHARD C. LYON, Dean of the College and Professor of Humanities and Arts, was formerly Chairman of the American Studies Curriculum at the University of North Carolina. Mr. Lyon earned a B.A. in philosophy from the University of Texas while an Oldright Scholar. He holds a second B.A. in philosophy from Cambridge University, where he was a Fulbright Scholar for two years. His Ph.D. degree in American Studies was received from the University of Minnesota, where he held two consecutive Carnegie Fellowships in American Studies. Mr. Lyon has published a number of papers on George Santayana, on Charles Francis Adams, and on the problems of American Studies. He is editor of Santayana on America (Harcourt, Brace & World, 1968).

ROBERT MARQUEZ is Assistant Professor of Hispanic American Literature in the School of Humanities and Arts. Mr. Marquez received his B.A. from Brandeis University and has an M.A. from Harvard, where he is currently a candidate for the Ph.D. in Latin American Literature. As a Fulbright Fellow in 1966-67, Mr. Marquez taught at the Centro Cultural Peruano-Norte Americano in Peru; he has also been a teaching fellow and has taught in the Summer School at Harvard University and in the summer school of the Brandeis University Upward Bound Program, and he has worked for the World University Service in Peru and Venezuela and as Area Coordinator of the Migrant Education Program of Middlesex County, Massachusetts. In addition to the Fulbright Fellowship, Mr. Marquez has scholarships and prizes from Brandeis University, a Harvard University Teaching Fellowship and a Harvard University scholarship. He has published articles and translations in Folio and has just completed for publication a bilingual anthology of the poetry of Nicholas Guillen. Individual poems from this anthology have already appeared in The Monthly Review and The Massachusetts Review. He has just begun work on an "anthology-in-translation" of the revolutionary poets of the Latin American continent.

WILLIAM E. MARSH is Assistant Professor of Mathematics in the School of Natural Science and Mathematics. He received his B.A., M.A. and Ph.D. in mathematics from Dartmouth College. He came to Hampshire from Talladega College in Talladega, Alabama, where he served as Chairman of the Mathematics Department. He has also taught at Dartmouth College and has held research positions at Cornell University and the University of California at Berkeley. He held an NDEA Fellowship at Dartmouth. His research interests include model theory, subrecursive functions, and the foundations of mathematics and of linguistics.

DAVID E. MATZ is Assistant to the President and Assistant Professor of Law in the School of Social Science. He is also Director of the Program in Undergraduate Law Study. Mr. Matz received his B.A. degree from Brandeis in 1960 and his LL.B. from Harvard Law School in 1963. He is a member of the Pennsylvania Bar and is chairman of the Executive Committee of the Hampshire County Civil Liberties Union. From 1963 to 1965 Mr. Matz taught law at the University of Liberia in West Africa as a member of the Peace Corps. Upon his return to Philadelphia he practiced law.

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LESTER J. MAZOR is Henry R. Luce Professor of Law in the School of Social Science. Mr. Mazor received a B.A. from Stanford University in history in 1957, and an LL.B. from Stanford in 1960. During 1960-61 he served as Law Clerk to Hon. Warren E. Burger. He has taught at the University of Virginia, Stanford University, and the University of Utah law schools. He has published many articles, reports and book reviews in law journals, and has served as Chairman of the Association of American Law Schools Committee on Teaching Law Outside of Law Schools, as well as on the Associations Project in Law School Curriculum. His special interests are currently in the limits of the legal process and in the role and status of women in society.

LYNN MILLER is Associate Professor of Biology in the School of Natural Science and Mathematics. Mr. Miller received his B.A. from San Francisco State College and his Ph.D. from Stanford University. He held a National Institute of Health post-doctoral fellowship at the Hopkins Marine Station of Stanford University in microbiology and a post-doctoral fellowship at the University of Washington in genetics. He taught at the American University of Beirut from 1965 to 1968 and at Adelphi University from 1968-1970.

STEPHEN O. MITCHELL is Director of Computer Facilities and Associate Professor of Computer Science in the Program in Language and Communication. Mr. Mitchell has been Director of the Computer Center and Higher Education Officer at Lenman College, where he established a complete teaching, research, and administrative computer system. At Syracuse University, he was the Director of the Freshman English program and also taught graduate courses. Mr. Mitchell has a B.S. from Purdue University, an M.A. from the University of Michigan, and a Ph.D. in English from Indiana University. He has held research grants from Syracuse University, the Shell Oil Company, and the Modern Language Association, and has received the Ewing Prize in Philosophy for work in logic. He is the author of numerous articles both on language and on computers, and co-author of Essays on Language, Language Style and Ideas, and Discourses on Art.

RICHARD L. MULLER is Director of Educational Technology and Assistant Professor of Communication Science in the School of Social Science. He comes to Hampshire from the position of Director of Instructional Communications and Assistant Professor of Administrative Medicine at the State University of New York Upstate Medical Center at Syracuse. His B.A. is from Amherst College in psychology and he holds a Ph.D. in Education from Syracuse University in Instructional Technology. He was an NDEA Research Fellow in Instructional Communications at Syracuse University, involved in both teaching and research, and has presented papers at the annual meetings of the American Educational Research Association.

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FRANKLIN PATTERSON is Hampshire College's first President and will be Professor of Political Science in the School of Social Science. Before his appointment to Hampshire, Mr. Patterson was Professor of Government and Education and Director of the Lincoln Filene Center for Citizenship and Public Affairs at Tufts University. He was a member and staff Director of the Carnegie Commission on Educational Television. In 1965, he was Co-Director of the Social Studies Curriculum Program of Educational Services Incorporated (now Education Development Center). Mr. Patterson has been a member of several public organizations studying educational problems in Massachusetts, among them the Willis-Harrington Commission and the State Advisory Committee on Racial Imbalance and Education. He directed New York University's Youth Community Participation Project. A graduate of Occidental College, he received his Ph.D. degree at the Claremont Graduate School.

SEYMOUR POLLOCK is Visiting Assistant Professor of Spanish in Foreign Studies. Mr. Pollock received his A.B. and A.M. from Middlebury College. He holds a certificate from the University of Paris and from the University of Valladolid. He is presently a candidate for the Ph.D. at the University of Massachusetts. Among other positions, Mr. Pollock has served as an Escort-Interpreter for both government and business. He has taught English in exchange programs in Madrid, Madagascar, the Somali Republic and Tunisia, and Spanish at the University of Vermont, Washington College in Maryland, Boston University, and the University of Massachusetts.

ROBERT B. RARDIN, II, is Assistant Professor of Linguistics in the Program in Language and Communication. Mr. Rardin received a B.A. from Swarthmore College in 1967 and is a candidate for the Ph.D. in linguistics at Massachusetts Institute of Technology. He has held a National Merit Scholarship, a Danforth Graduate Fellowship, and a Woodrow Wilson Teaching Fellowship. He has traveled widely in Europe, especially in the Soviet Union and in Scandinavia. He speaks six languages, has published an article on Finnish vowel harmony, and has taught "Russian for Scientists" at M.I.T. Mr. Rardin is also interested in international affairs and peace work, music and photography, many outdoor sports, and conservation.

DAVID S. ROBERTS is Assistant Professor of Literature in the School of Humanities and Arts. He received his B.A. from Harvard College in 1965, and the M.A. from the University of Denver, where he will also receive the Ph.D. Mr. Roberts has worked as a field assistant for the University of Colorado's Institute for Arctic and Alpine Research and as an instructor for the Colorado Outward Bound School, teaching mountain climbing and wilderness skills; he has published numerous articles in mountaineering journals and in 1968 published The Mountain of My Fear, a book about mountain climbing. His first novel will be published this year. He has taught English for a summer at the University of Alaska and for a year at the University of Denver.

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KENNETH ROSENTHAL is Executive Assistant at Hampshire and Assistant Professor of Law in the School of Social Science. He joined the planning staff in 1966, with particular responsibilities for college planning and developing sources of funds for the College through federally supported programs. Mr. Rosenthal graduated from Amherst College in 1960 and the Yale Law School in 1963. He served as a law clerk of the Appellate Division, New Jersey Superior Court, in 1963-64, and as Field Director in the Amherst Capital Program from 1964-65. Prior to his appointment at Hampshire Mr. Rosenthal, a member of the New Jersey Bar, was an Associate in the law firm of Toner, Crowley, Woelper and Vanderbilt in Newark, New Jersey.

DAVID E. SMITH has been appointed Professor of English and American Studies in the School of Humanities and Arts and Master of Merrill House, the first Hampshire residence hall. He received his B.A. from Middlebury College, an M.A. and Ph.D. in American Studies in 1962 from Minnesota. His study, John Bunyan in America, has been published by the Indiana University Press. From 1961 to 1970 Mr. Smith was Professor of English at Indiana University. He has held graduate and research fellowships from Minnesota, Indiana, the Yale Divinity School, the Society for Religion in Higher Education, and the American Philosophical Society. His fields of competence include colonial American writing, nineteenth century American literature, and American intellectual and religious history. He is the author of numerous articles in these fields.

FRANCIS D. SMITH is Dean of the School of Humanities and Arts. He was formerly Associate Director of the Massachusetts anti-poverty program and Director of federal community relations programs for Massachusetts. Mr. Smith graduated from Harvard in 1950. He later became a Teaching Fellow in Social Sciences at Harvard and a teacher of history and literature in high school. In 1960 he was elected a John Hay Fellow in Asian Studies at Harvard. An author and critic, Mr. Smith has published as a sociologist, a playwright and a novelist and has written criticism for several publications. He says that if his teaching is distinctive, "it is distinctive for an evolving comic vision of history, mostly ironic."

ROBERT LEWIS STERN is Visiting Composer in Electronic Music for 1970-71 in the School of Humanities and Arts. He is also Associate Professor of Music at the University of Massachusetts in Amherst. Mr. Stern received a B.A. in Music at the University of Rochester and an M.A. from the Eastman School of Music at the University of Rochester. He was a University Fellow at the University of California at Los Angeles, and received a Ph.D. from the Eastman School of Music. He studied composition with Louis Mennini, Wayne Barlow, Kent Kennan, Bernard Rogers, Lukas Foss and Howard Hanson. He taught at the Hochstein Memorial School of Music, the Eastman School of Music, the University of Buffalo, and the Hartford Conservatory of Music before coming to the University of Massachusetts in 1963. Mr. Stern has won a

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(ROBERT LEWIS STERN continued) number of composition awards and his orchestral and chamber works have been performed throughout this country and abroad. His publications include work for percussion, classical guitar, and clarinets. His song cycle, Terezin, was recently recorded on the CRI label. Mr. Stern was a member of the Five-College Committee that helped to establish and develop the Electronic Music Studio at Hampshire, which contains one of the world's most complex electronic music synthesizers.

ROBERT S. TAYLOR, former Associate Librarian and Director of the Center for the Information Sciences at Lehigh University, is Director of the Hampshire College Library Center and Professor of Information Sciences in the Program in Language and Communication. He received a B.A. in history from Cornell University, an M.S. in library sciences from Columbia University, and an M.A. in history from Lehigh University. He joined the staff of the Lehigh Library in 1950. Mr. Taylor has been director of a number of projects concerned with library systems analysis, information retrieval, computational linguistics, and communication studies. In 1968 he was President of the American Society for Information Science.

EUGENE TERRY is Assistant Professor of Literature in the School of Humanities and Arts. His B.A. and M.A. are from Howard University; he is completing a Ph.D. at the University of Massachusetts. Mr. Terry has taught English at Southern University in Baton Rouge, Louisiana, at Johnson Smith University in Charlotte, North Carolina, at Grambling College in Grambling, Louisiana, and at Saint Augustine's College in Raleigh, North Carolina, where he was acting head of the English Department. He also served as a graduate assistant in English at the University of Massachusetts, and taught last year at Holyoke Community College. His special interests include the study of folk heroes and black literature; he has also done work with marionettes.

BARBARA TURLINGTON is Assistant to the Dean of the College and Assistant Professor of Political Science in the School of Social Science. In 1968-69 she served as Staff Director of the Five-College Long-Range Planning Committee. She attended Swarthmore College and received the B.A. degree from the American University of Beirut in Lebanon and is a doctoral candidate in the Department of Public Law and Government at Columbia University. At Columbia she held the William B. Cutting, Jr., Fellowship, and a University Fellowship, and later a Danforth Teaching Fellowship. From 1961 to 1963 Miss Turlington taught at Connecticut College and from 1963 to 1968 at Mount Holyoke College. Her special interests are in international politics and comparative government.

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ROBERT P. VON DER LIPPE is Associate Professor of Sociology in the School of Social Science. He received his B.A. in biology, his M.A. and Ph.D. in sociology from Stanford University. He has taught at Columbia University, New York University, Brown University, and Amherst College. From 1965 to 1969, he served as Director of the NIMH Graduate Training Program in the Sociology of Medicine and Mental Health at Brown University. Subjects of his particular teaching interests include social psychology, medical sociology, deviant behavior and disorganization, occupations and professions, and small groups. His research and publications have been primarily in the area of medical sociology. He has held fellowships from the National Institute of Health and the Russell Sage Foundation. While at Brown, he and his wife were resident fellows at Pembroke College. They were also Danforth Foundation Associates, positions they will hold at Hampshire College in 1970-71.

JAMES M. WATKINS is Director of Foreign Studies and Professor of Languages. From 1958 to 1970 Mr. Watkins has been at Middlebury College, where he was Director of the Language Center and Associate Professor of French. He has also served as Middlebury's Director of Studies in Paris. His B.A. is from Pennsylvania State University, his M.A. is from the Middlebury Graduate School of French in France, and he has a Diplôme from the Institut de Phonétique and a C.A.E.F.E. from the Institut des Professeurs de Français à l'Etranger, Sorbonne. He has also taught at the University of California at Berkeley and at Duke University. He is the author of numerous articles on the teaching of French and of a textbook and several manuscript models for experimental language courses.

WHITELAW WILSON is Associate Director of Admissions and Assistant Professor of Sociology in the School of Social Science. He was formerly a caseworker with Family Service in Concord, New Hampshire, where he also served as a consultant to the Concord Mental Health Center and to the New Hampshire Department of Mental Health. He also served as Director of Admissions at Coe College for four years, as Assistant Director of Admissions at Syracuse University for two years, and as Acting Director of Admissions for one year at the Westtown School of Pennsylvania. While in the army for two years, he was a psychiatric social worker in a maximum security prison. Mr. Wilson received his B.A. and M.A. in social work at Syracuse University. His publications include articles in College Board Review and Admission Counselors Journal. He recently completed a survey of social work manpower in New Hampshire for the state's Social Welfare Council.

BARBARA B. YNGVESSON is Assistant Professor of Anthropology in the School of Social Science. Mrs. Yngvesson attended Oberlin College and received a B.A. from Barnard College in 1962. Following graduation from Barnard, she worked for a year as Welfare Officer for the Department of Native Affairs in Papua, New Guinea. She is now completing her Ph.D. in Anthropology at the University of California at Berkeley, with a specialization in the anthropology of law and in social organization. Mrs. Yngvesson has held the Robert H. Lowie Fellowship in anthropology at Berkeley.

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(BARBARA B. YNGVESSON continued) as well as a University of California Fellowship and a National Institute of Mental Health Postdoctoral Fellowship. She has been a teaching assistant at Berkeley. She has done field work in Peru and in Sweden, has presented papers at meetings of the Anthropological Association, and contributed a chapter on Law to a forthcoming book by Dr. Laura Nader entitled Handbook of Social and Cultural Anthropology.



**HAMPSHIRE COLLEGE**

AMHERST, MASSACHUSETTS 01002



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HAMPSHIRE COLLEGE  
PRELIMINARY COURSE ANNOUNCEMENTS  
FALL 1970

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Note: Final course announcements  
will be published in August with  
additions and corrections.

6/1/70

# HAMPSHIRE COLLEGE CALENDAR 1970-71

## 1970

Residence hall opens	Saturday, September 12 (p.m.)
Fall session begins	Monday, September 14
Fall Colloquy	Tuesday, September 15 to Saturday, September 26
Fall classes begin	Monday, September 28
Thanksgiving recess	Wednesday, November 25 at noon to Monday, November 30
Last day of classes	Saturday, December 19

## 1971

January Term	Monday, January 4 to Saturday, January 30
Spring term classes begin	Wednesday, February 3
Spring recess	Saturday, March 20 after last class to Monday, April 5
Pre-registration	Monday, April 19 to Saturday, April 24
Last day of classes	Saturday, May 8
Reading period	Monday, May 10 to Saturday, May 15
Examination period	Monday, May 17 to Saturday, May 29
Graduation day	Sunday, May 30

6/1/70

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THE DIVISION OF BASIC STUDIES

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The courses described in the following pages will be offered in the Fall Term of 1970 by faculty members of Hampshire's three Schools--the School of Social Science, the School of Natural Science and Mathematics, and the School of Humanities and Arts. Since all of Hampshire's 267 entering students will be first-year students (with the exception of 16 seniors comprising the initial group of "Hampshire Fellows") these courses are designed to introduce students to the intentions and process of liberal education at Hampshire. All of them are designed as courses in Division I, the Division of Basic Studies.

Students at Hampshire College will progress in their studies through three consecutive Divisions: the Divisions of Basic Studies, School Studies, and Advanced Studies. The traditional designations for the four years of college--viz., the freshman, sophomore, junior, and senior years--will not be used. Work in the first Division will normally be completed by the end of the student's second year, though the time required may be longer or shorter in individual cases. From Basic Studies the student will progress to the Division of School Studies, and his undergraduate work will in every case be completed by studies in the third Division, the Division of Advanced Studies.

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

A major purpose of these first Division courses is to give the student limited but direct and intense experience with the use of the disciplines in all three of Hampshire's Schools. The lectures, seminars, and workshops of this Division will not be the customary introductory survey courses. Students will come to close quarters with particular topics which bring to sharp focus the characteristic concerns and procedures of scholars and artists in diverse fields. Basic Studies are designed not only to introduce the student to the variety of ways in which men may understand the world, but also to acquaint him with the skills of self-directed inquiry. Development of the desire and capacity for independent study constitutes a major objective of all work in Division I.

In the Fall Term and the Spring Term, each about twelve weeks in length, the student enrolls in three courses. Hampshire's departure from the usual practice of requiring students to enroll in four or five courses reflects its conviction that the study of fewer subjects, by allowing the student to give more time to

each, permits a closer acquaintance and a deeper engagement with each. The average course will make a demand on the student's time of roughly fifteen hours per week.

Hampshire's curriculum makes provision for a wide variety of teaching-learning arrangements. In some courses lectures are the chief mode of instruction. Others are organized as seminars, enrolling no more than 16 students. Frequent provision will be made for small discussion or workshop groups and for individual faculty-student conferences. Members of the faculty will select among these and other arrangements, singly or in combination, those which are best suited to the purposes of particular courses. Seminars and small group tutorials will be a frequent mode of instruction in the Division of Basic Studies.

At the end of each school year a one-week reading period and a two-week examination period bring faculty and students together in a variety of ways for evaluation of the student's progress in his studies. The examinations assess the student's readiness for more advanced work, enabling his instructors to determine the kinds of study he might best pursue to shore up his weaknesses and develop his strengths. A student's performance during this period determines his advance from one Division to the next.

In view of the examinations, it is advisable for students to plan balanced programs which will give them an introduction to all Schools of the College as well as some initial depth in a single field. First-year students are advised to enroll in one course in each of the three Schools during their first year, as well as the two common courses, "Human Development" in the Fall Term and "Language and Communication" in the Spring Term. (A brief description of the Language and Communication course is included here, following the descriptions of Fall Term courses.) At the end of their first year, students will be examined in these two first-year common courses, and in that School in which they have elected to take a full year's work (a course in both the Fall and Spring Terms). The student will normally take his examinations in the other Schools after second-year work in each.

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## HUMAN DEVELOPMENT SEMINARS

Title and Instructor:	Registration Number:
Adult Socialization Robert von der Lippe	HD 101-1 RVDL
American Literature and Culture David Smith	HD 105-1 DES
Black Consciousness Eugene Terry	HD 107-1 ET
Culture and Cognition Michael Cole	HD 110-1 MC
The Development of the Political Self Gayle Hollander	HD 115-1 GDH
Development of Scientists (to be taught by an historian of science)	HD 120-1
Dimensions of Consciousness John R. Boettiger	HD 125-1 JRB
Evolution of Humans Ray Coppinger	HD 130-1 RPC
The Family Whitelaw Wilson	HD 135-1 WW
Feminine Identity Lester J. Mazor	HD 140-1 LJM
Human Sexuality Robert B. Rardin	HD 145-1 RBR

HUMAN DEVELOPMENT SEMINARS

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Man in Nature David Roberts	HD 155-1 DSR
Modes of Being Human: Philosophical Anthropology James Haden	HD 160-1 JCH
On Woman Sheila Houle	HD 165-1 SAH
The Outsiders Penina Glazer	HD 170-1 PMG
Perceptual Development: How does a child form an internal representation of the world? James Koplin	HD 175-1 JK
Sigmund Freud and the Origins of Psychoanalytic Theory Louise Farnham	HD 177-1 LJF
The Synergism of Men and Microbes Lynn Miller	HD 178-1 LM
Utopian Thought and Practice, From <u>The Republic</u> to the Contemporary Commune Barbara Turlington	HD 180-1 BT

6/1/70

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SEMINARS IN HUMAN DEVELOPMENT

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The fall term seminars in human development will offer Hampshire's first-year students a wide range of opportunities to explore aspects of the individual life-process: the ages of man and woman from birth through death, and the echoes of a life in the succession of generations. Liberal education is human development; when it works, the student finds for himself a richer sense of the ground and path of his own existence. That persuasion has moved us to design the following collection of seminars.

As the basis of individual seminars in human development, students will be offered a common ground of experience through lectures, colloquia, demonstrations, films, and some common readings. The core materials and events will be designed to generate an understanding of the basic biological, psychological and social dynamics of human development, and thus to serve as a common foundation for eighteen to twenty individual seminars.

Each seminar will accommodate thirteen or fourteen Division I students. Several will be led jointly by a member of the faculty and a Hampshire Fellow. The seminars, as will be abundantly clear from reading the list of descriptions, vary greatly in their specific focus, style, and materials. But all will attend, in their own way, to the processes of human growth and to the values we attach to these processes. And all--again in their own fashion, some more implicitly than others--will be self-reflexive, encouraging members to discover and examine the connections between the substance of the seminar and the substance--the issues and processes of growth--in their own lives. In a more substantial sense than the term usually bears in academic rhetoric, the seminars are thus intended as ways of orientation.

John R. Boettiger  
Committee on Human Development

6/1/70

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American Literature and Culture

Professor David Smith

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- form: weekly seminar meetings for entire group plus regularly scheduled tutorial meetings for individuals or small groups.
- object: development of critical methods of inquiry enabling students to identify and define literary qualities and problems and to distinguish them from cultural and social images.
- method: through exploration of a single theme--"Coming of Age in America"--exemplified in two literary genres (fiction and autobiography), and supported by corollary readings in theory of literature, literature and culture, sociology and psychology of literature. Readings will be general, non-technical, and concentrate on the theme of adolescence and youth-culture: Bettelheim, Erikson, Eisenstadt, Parsons, Denney, Kenniston, Coles, Lifton, others.
- procedure: two introductory seminars, plus introductory small-group tutorials. Selection by students from a large list of American autobiographies and novels of "coming of age," as well as readings in theory of literature, sociology and psychology of adolescence. These items to comprise a term's reading list, with opportunities to emend, add, revise. This reading, and reports on it, will lead students to their own syntheses of theories of "literature and culture." The weekly seminars will have a common core of reading (e.g. a single novel and one or two essays for one week's meeting), and will encourage a group approach in discussion. Tutorials will address individual ideas, problems, projects. Some appropriate films and art work.

Examples of texts for the course: (not a final list):

autobiographical: Robert Lowell, Richard Wright, Malcolm X, Alfred Kazin, Voices from the Love Generation.

novels: Faulkner, The Bear, Light in August, Heller, Catch-22, Shirley Jackson, Hangsamen, Hemingway, In Our Time, Ellison, Invisible Man, Salinger, Catcher in the Rye.



Examples of texts for the course: (continued):

theory of literature: Wellek and Warren, Theory of Literature, Howard M. Jones, Theory of American Literature, Roy Pascal, Design and Truth in Autobiography.

adolescence (psychology, sociology): Erikson, Ed., Youth: change and challenge; Childhood and Society.

adolescence (literature): Witham, The Adolescent in the American Novel, Kiell, The Adolescent Through Fiction

6/1/70

Human Development Seminar  
Registration Number: HD 105-1 DES

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Black Consciousness

Professor Eugene Terry

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An examination of black consciousness in terms of the picture of the Black man in White America generally and also in terms of how he has seen himself. The struggle of Blacks against the sub-human image assigned by White commentators and caricaturists will be studied in terms both of the changing self-consciousness of Blacks and the changing interpretation of Blackness by Whites.

A major theme of the course will be the historical fact that "black consciousness" as an observable phenomenon is much older than the recent general awareness of it suggests. It has, in effect, always been present in American culture, but it has undergone many changes in form during our history.

6/1/70

Human Development Seminar  
Registration Number: HD 107-1 ET

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Culture and CognitionProfessor Michael Cole

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This course will concern itself with the question of how people's intellectual processes are influenced by the cultural environment in which they are raised and in which they live.

Interest in cultural variations in cognitive processes ("cognition" is a general purpose word used by psychologists to refer to the processes such as perception, memory, and problem solving) is as old as man's contact with human groups other than his own.

Five centuries of speculation and serious scholarship have evolved three general positions regarding the relation between culture and cognitive processes: 1) there are fundamental differences in the intellectual processes of different peoples which are conditioned by experience 2) there are fundamental differences which are a function of race which in turn determines the cultural differences 3) there are no fundamental differences.

In spite of its long history, the problem of culturally conditioned intellectual processes has witnessed little headway in resolving the differences among the three basic positions. The class will explore how each of these positions came to be formulated and attempt to specify the kinds of new data and theoretical constructs which are needed to bring order to this confused domain.

The early part of the class will focus on the problem through a survey of anthropological, sociological and linguistic thought in the 19th and early 20th centuries. Readings will include Darwin, Spencer, Tylor, Boas, Levy-Bruhl, J.S. Mill and others. Then certain trends in modern anthropology and linguistics will be discussed to give the non-experimental approach to the study of thinking in its cultural context. Reading here will include Whorf, Havelock (Preface to Plato), Evans-Pritchard, and perhaps Levi-Strauss.

Finally, the role of the experimental method in clarifying the problems at issue will be discussed. The use of IQ tests in exotic cultural settings will be considered and then the seminar will consider the question of how a serious effort at the experimental assessment of differences in cognitive processes could be undertaken. The limited relevant psychological literature will be reviewed and criticized.

There are two endpoints to this course. For some students the major value of the course will be as a case study in how the way we choose to ask questions shapes our answers to these questions. For others, it may in addition prove sufficiently interesting to motivate them to study these new, but potentially important fields in depth. I hope that for all students it is an interesting voyage through a significant area of Western thought.

6/1/70

Human Development Seminar  
Registration Number: HD 110-1 MC

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The Development of the Political Self

Professor Gayle Hollander

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This seminar will deal with the formation of the political self: the process by which an individual becomes acquainted with his community's political rules and expectations and comes to view himself in relation to the world of politics. Analysis will focus on such questions as: (1) How does the nature of the political system affect individual political learning? (2) What is the relationship between individual development and the process of learning about politics? (3) What are the relative functions of society's agents (the family, peer groups, formal institutions and organizations, symbols of state authority, etc.) in contributing to the political growth of its members? (4) How are the various dimensions of political involvement acquired? (5) How do historical events influence the future perceptions of individuals about political life? (6) What factors in individual and group psychology affect the formation and functioning of the individual as a political being?

In addition to the work of recognized scholars in the field of political socialization (notable among whom are Herbert Hyman, Robert Hess, Judith Torney, Fred I. Greenstein, and David Easton) the writings of psychologists (such as Stanley Milgram and Hans Toch), and of anthropologists (Oscar Lewis, Margaret Mead), as well as a number of biographical and autobiographical accounts (Wolfgang Leonhard, Erikson on Hitler and Ghandi, Bernadette Devlin, Malcolm X) will be examined.

The seminar will meet once a week for two and a half hours. Participants will be expected to draw from their own personal experiences, and to contribute to the presentation of additional materials, including the results of their own original research, to the seminar.

6/1/70

Human Development Seminar  
Registration Number: HD 115-1 GDH

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Development of Scientists: Science as Profession and World View

(to be taught by an historian of science)

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This course will approach two basic problems in the relationship of the individual to society: first, the search for personal fulfillment in professional activity; and second, the search for personal orientation in terms of philosophical, religious, or scientifically conditioned world views. Both of these problems will be approached through the medium of history of science, and the associated disciplines of psychology of science, sociology of science and scientific biography. We shall be interested, then, on the one hand in the personal aspects of the scientific professions, and on the other hand in the role of science in the world view of the non-professional.

We shall deal with the following sorts of questions about the scientific career: How did it come about that the pursuit of science changed from an avocation to a professional undertaking? What sort of person has been attracted to a scientific career, in the past and in the present? What kinds of personal satisfactions have been sought in scientific careers? And how has the personality of the scientist affected his professional work? Some of the answers to these questions will be sought in a consideration of the following motivations toward scientific endeavor: curiosity; the goal of personal recognition; the desire to help humanity; the desire for power over nature and over other men; the appreciation of order and beauty; and yet other goals, desires, and drives. We shall first consider the status of these motivations from a psychological and sociological point of view, and then go on to study relevant historical examples.

Some of the motivations listed above are also relevant to the question of the role of science in the thinking of the individual who is not a scientist. In studying this question, we will be studying the history of science as a branch of the history of ideas, and we shall thus be interested in the relationships of science with religion and philosophy. In considering the development of the heliocentric cosmology in the sixteenth and seventeenth centuries, and the rise of evolutionary biology in the nineteenth century, we shall be interested not only in the public conflict between religion and science, but also in the various attempts, public and private, at synthesis. Finally, we shall be concerned with the extent to which the critical stance of twentieth-century science--with its abandonment of various absolutes, including absolute determinism--has entered into the thinking of the aware individual.

6/1/70

Human Development Seminar  
Registration Number: HD 120-1

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Dimensions of ConsciousnessProfessor John R. Boettiger

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The course will be designed as an experimental workshop to better understand some of the varieties of conscious experience to which men and women are led in their search for personal growth. Selections and emphases among various disciplines\* cannot be precast, but the methods and realms of inquiry from which the workshop will draw include:

- encounter and human relations training
- approaches to imagination, dream and fantasy experience, and play
- still and moving meditation
- sensory awakening
- body structure, images and movement, and their connections with the sense of self
- drug use and altered states of consciousness
- mythmaking, ritual, and religious experience

(\*It should be clear from such a list that "discipline" is here intended as something more akin to the Sanskrit term *Sādhana*--a liberating discipline pursued for the sake of the individual's spiritual development--than to the conventional academic sense.) The course will move toward a synthesis of experiential, reflective, and analytic modes of work, with individual projects, small groups of two to six, and larger seminar sessions, directed at a better realization of the ways of human growth: freeing creative energies and exploring the potentialities of self-expression. Attention to the uses of drugs by students and others, it should be clear, will not extend to the experimental use of drugs in the workshop's activities. In addition to regular meetings throughout the term, one or two longer weekend sessions will be planned.

6/1/70

Human Development Seminar  
Registration Number: HD 125-1 JRB

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Evolution of Humans

Professor Ray Coppinger

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It is constantly surprising that most of our attitudes toward flesh and bone reflect more a concept of original creation than the reality of an organic evolution. The human being, with its enzymes and hormones, is a medical reality, but the common view is blind to its role in nature. For example, we recognize specific courtship behavior in birds, but we ignore it in ourselves. The thought in this Seminar, then, is to explore the evolution of various taxonomic characteristics of homo sapiens, especially with reference to the development and behavior of the individual.

We propose to study the evolution of the human species both anatomically and behaviorally. Such subjects (with sources) as

The Origin of Races (Coon: The Origin of Races, Dun and Dobzhansky: Heredity, Race and Society)

Processes of Evolution (deBeer: Embryos and Ancestors)

Relevance of Sex in Primate Evolution (various sources)

will be studied. These strictly scientific works may be interspersed with more popular interpretations of human evolution by Darwin, Audrey, Dubos, Lorenz and Morris, including religious and anti-revolutionary points of view.

6/1/70

Human Development Seminar  
Registration Number: HD 130-1 RPC



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The Family

Professor Whitelaw Wilson

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The family is the basic unit in our society. Early in the seminar a normative family (white, middle class, two children) will be studied. Particular emphasis will be directed to how the children are introduced to the culture in which they live through the family. Thus, child rearing practices, personality formation, and the socialization process will be highlighted.

Seminar members will be invited to contribute those family experiences they have had to the discussions.

Against this normative family, each seminar member will select a family in contrast to it for his independent study project. Again, the emphasis will be on how the child is introduced to the culture in which he lives through the family.

Examples could include a welfare family for a study of the single parent family, the Navaho for a study of family life within extended clans and kinship patterns, the communal families of Kenya, the parent, parent/substitute families of the Kibbutz or orphanages, a particular historical period for considering families of the past, etc.

The final third of the seminar will provide the opportunity for each student to become the teacher in presenting his/her findings.

A written contract between the faculty member and the student will be used in this seminar.

6/1/70

Human Development Seminar  
Registration Number: HD 135-1 WW

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Feminine IdentityProfessor Lester J. Mazor

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This seminar will examine the process of development of personal identity in American women. The goals of the seminar are to expose preconceptions about the meaning of femininity, to examine the factors which lead to a distinction between masculinity and femininity, to examine the process of human development from a perspective which focuses on gender differentiation, and to consider the consequences for both individuals and society of the existence of gender identity stereotypes. A pervasive theme of the seminar will be exploration of the meaning of identity and the process of identity development, drawing upon the work of Erikson, Keniston and others.

We will begin by attempting to catalogue the characteristics implicit in our own image of the feminine and by surveying other members of the community to measure the extent to which our notions are widely held. Data from other cultures will be examined to determine the extent to which American concepts of femininity differ from those elsewhere. We will then explore factors influencing feminine identity in the United States, such as child-rearing practices, educational modes, and advertising images. Throughout we will be looking at the change that is taking place in the processes of identity formation of women and considering the consequences of that change.

Much of the material for the course will be drawn from our own experience and that of others whom we know well. We will also consider the theories of biologists, sociologists and particularly psychologists, including those working in the traditions of Freud and Jung as well as contemporary experimentalists.

To help us avoid being bound by the limitations of our own personal experience and the cold printed page we will invite women of different ages and backgrounds to participate in some of our sessions. We may also attend meetings of groups of women interested in these issues. We will draw heavily upon the literature of the new women's organizations for information and hypotheses.

The seminar will seek to recognize issues facing the Hampshire Community which have a bearing upon the identity development of its feminine members and to suggest possible courses of action with regard to them.

6/1/70

Human Development Seminar  
Registration Number: HD 140-1 LJM

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Human Sexuality: Personal fulfillment or impersonal exploitation?

Professor Robert B. Rardin

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The seminar will examine the role of sex in social organization, concentrating upon the factors contributing to the individual's understanding of restrictions and expectations imposed by our society. The various forces which influence the development of awareness within the individual of male and female sex roles will be examined; particular attention will be devoted to direct sources, especially the mass media, including Playboy, Ladies' Home Journal, Glamour, Seventeen, Readers' Digest, television commercials, current best-sellers, church publications, school textbooks, military recruitment propaganda, and female liberation materials.

The central questions to be posed throughout this investigation are the following: Do the forces focussed upon the individual aid in the realization of human potential, or do they exploit and damage the human personality? Do the sex roles currently projected by society inspire, or do they inhibit, human development? If the latter, what can be done to change current patterns?

6/1/70

Human Development Seminar  
Registration Number: HD 145-1 RBR

HAMPSHIRE COLLEGE COURSE ANNOUNCEMENT

FALL 1970

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Man in Nature

Professor David Roberts

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A selective survey of cultural attitudes toward nature and a consideration of historical changes in those attitudes, drawing on the resources of literature, science and exploration, and ranging from Homer to Aldous Huxley.

6/1/70

Human Development Seminar  
Registration Number: HD 155-1 DSR

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Modes of Being Human: Philosophical Anthropology

Professor James C. Haden

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Beyond special studies of childhood, womanhood, negritude, and so on, lie studies of a more general nature, which are usually called philosophical. These are not similar to anthropology as an empirical science, but rather they attempt to work out in coherent detail certain insights into the human condition which are interpretive rather than descriptive. If the attempt is successful, then the resulting depiction of man and his activities is one which has enduring power.

This seminar proposes to take three specimens of this sort of thinking, and to explore them comparatively. The first is the eldest: the view of man and the trajectory of his life which is elaborated in tragic literature from Aeschylus to Unamuno and beyond. Here the emphasis is on the individual, and on a personal history set against a larger background. The second is that of Marx and Marxism, with its central intuition of man as worker and the theme of the dynamics of human society. The third is the philosophy of Ernst Cassirer, which draws on certain Kantian insights to work out a humanistic view in which man's symbol-making and -using powers are the key to his ability to construct his world as known and experienced.

6/1/70

Human Development Seminar  
Registration Number: HD 160-1 JCH

## On Woman

Professor Sheila Houle

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At this time in our society when our imagination and emotions are assailed by conflicting images of woman, from the Woman's Liberation devotee to the Playmate of the Month, it seems most appropriate that in the Human Development program we consider deeply what it means to be a woman in Western civilization. As we explore the concepts of woman that have developed in human history, we will necessarily study many facets of her being--intellectual, emotional, sexual, social, and religious. The basic materials for our work will be literary texts, including Biblical sources, classical drama, medieval verse, and modern literature; where pertinent, readings will also be drawn from contemporary psychology and sociology.

The course will operate on several levels for maximal benefit to the participants as individuals and as members of a group. Seminar sessions will involve the entire group in discussing the texts, while tutorials will allow small groups to pursue a topic of special interest to them (for example, the image of woman in contemporary film or a particular writer's attitude toward woman). Whether male or female, each participant in the seminar will have the opportunity to grow personally as his or her understanding of feminine nature is enhanced. The expression of personal reflections, experiences, and feelings will be an integral part of the seminar--in such possible forms as a journal, an essay, or a dance interpretation of a literary work.

6/1/70

Human Development Seminar  
Registration Number: HD 165-1 SAH

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The Outsiders

Professor Penina Glazer

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Most courses in American history have examined the development of institutions and groups which were in the mainstream of the society and have regarded those who were vigorous dissenters to political and social developments as deviants. Our purpose here will be to reverse this pattern by studying the "outsiders."

We will examine the antinomians who were dissenters in the Puritan society, the abolitionists and feminists in the 19th century, and the radical pacifists in the 20th century in order to understand their assumptions, their criticism of the existing social order, and their methods of seeking change.

Our analysis will focus on a wide variety of questions. What types of people were recruited to these groups? What factors led to their alienation from the larger society? How did they come into contact with others of similar beliefs? How did their organizations give sustenance to their dissent in a hostile world? In what ways were their life styles affected by association with these movements? What compromises, if any, did they make to influence the larger society? What was the nature of their impact?

In addition to drawing upon a variety of historical sources dealing with the various movements, we will utilize the large body of social science material which deals with the role of the outsider and attempt to test some of the generalizations in the literature by applying them to the four major case studies.

6/1/70

Human Development Seminar  
Registration Number: HD 170-1 PMG

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Perceptual Development:

How does a child form an internal representation of the world?

Professor James Koplin

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A newborn baby has very few discriminative capacities--the world is little more than a blur. As his sensory and motor systems develop, he begins to organize the incoming information and also to initiate probes of his own. He performs experiments in order to establish that some things always appear together, that certain events always follow upon other events, etc. By the age of five or six a very sophisticated representation has been constructed complete with a symbol system (language) for talking about it.

In this course we will try to describe carefully what has been accomplished--and then spend some time on how it might have been done. Several sources will be used--ranging from anecdotal coverage such as in John Holt's book How Children Learn through the more formal accounts as represented by Piaget. Appropriate sections of standard psychological texts will also be utilized.

Special attention will be given to the methods that can be used (and the difficulties encountered) in trying to answer such a question. The methods used can be seen to depend upon some very basic assumptions about the nature of the human organism--and these assumptions should be made clear. Along with this analysis, the students may organize demonstration experiments as a way of gaining direct exposure to the problems.

The specific requirements and mode of conduct of the course will be worked out in consultation with the enrolled students during the first meetings.

6/1/70

Human Development Seminar  
Registration Number: HD 175-1 JK



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Sigmund Freud and the Origins of Psychoanalytic TheoryProfessor Louise Farnham

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This seminar will be concerned with the contributions of Sigmund Freud; the origins and development of psychoanalytic theory will be related to Freud's maturing mind and temperament in a study of both his life and the growth of psychoanalytic theory. Freud's relationships with his family and his colleagues, his personal experiences and achievements, his aspirations and disappointments will be studied as they influenced or were related to the development of psychoanalysis as a theory of personality, a method of treatment for disturbed patients, and as a research technique for the study of personality.

Reading for the seminar will include Ernest Jones' The Life and Work of Sigmund Freud, Letters of Sigmund Freud as selected by Ernst Freud, and various original works of Sigmund Freud. The latter will include parts of A Project for a Scientific Psychology, The Interpretation of Dreams, An Autobiographical Study, The Ego and the Id, A General Introduction to Psychoanalysis, Civilization and Its Discontents, and several case studies. Theoretical concepts to be emphasized include terms from Freud's dynamic, topographical, and economic descriptions of mental processes. The materials range from detailed treatment of concepts to more general theoretical works. Concepts to be studied include repression, anxiety, resistance, free association, unconscious motivation, guilt, the instincts and psychosexual development, and mental "structures" such as ego, id, and superego.

The goal of the seminar is to facilitate understanding of the relationship, particularly intimate in this case, between the personal development of one man and his contributions to intellectual life of her era and to Western intellectual history. Freud's emotional and intellectual life and his work were in unusual accord with one another; the study of his biography facilitates and enhances the understanding of his theory. Peripherally, some familiarity with early developments in psychoanalytic theory will be achieved, thus providing background in a basic and important theory of personality and human development.

6/1/70

Human Development Seminar  
Registration Number: HD 177-1 LJJ

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The Synergism of Men and Microbes

Professor Lynn Miller

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The seminar might be subtitled "Noneconomic Microbiology." We shall investigate briefly the well-known pathogenicity and the industrial uses of some microorganisms. Then we shall concentrate on some poorly understood, but potentially important, microorganisms found in the human digestive tract.

Many lines of evidence show that the predominant (most numerous) microorganisms living in the mouth and the digestive tract of human beings are essential for the growth and continued well being of every man. However, the activities of these organisms are not well understood--in fact, most of them are known only by their presence.

Techniques are now developed to the extent that beginning students of "human microbiology" can be involved successfully in basic studies of these organisms. The seminar-laboratory will therefore center on attempts to grow some of the poorly understood organisms in simple media outside the body. Students will proceed to define some of the nutritional and environmental requirements of the organisms, together with their effects on their environments.

This will be the first of a sequence of such investigations. Students in subsequent courses will observe changes of this biota during human development from infancy to adulthood.

A point of philosophy: There are a few generalizations in biology that should be taught, although biologists may disagree on their exact number. And there are two useful methods--the Socratic, when experimental tests are unavailable; and the Missourian, when the student can devise simple and elegant tests to exemplify the generalization. In the latter respect, microorganisms are a joy in the laboratory, easily and quickly illuminating ecological and microevolutionary problems.

6/1/70

Human Development Seminar  
Registration Number: HD 178-1 LM

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Utopian Thought and Practice, from The Republic to the Contemporary Commune

Professor Barbara Turlington

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What would the perfect society look like? How could it be attained? Can the form of the community encourage people to be "good"? What would one need to know about human beings and about society to plan a perfect state? These questions will be examined by this seminar which attempts to relate utopian thought and practice to theories of human development. The group will read and discuss theoretical and fictional works by utopian thinkers and their critics, and by political scientists, psychologists, and sociologists, concentrating on utopian theories of human nature and how it is shaped by society and on theories of training the young within certain kinds of communities.

Readings will include Plato's Republic, Skinner's Walden Two, works by Huxley, Marx, Mannheim, H. G. Wells, and Bettelheim, and specific criticisms of these writers (e.g. Popper, Krutch, Niebuhr), and studies of experimental communities past and present. Each member of the seminar will present a paper relating political and psychological theories of development to the practice of a contemporary or historical experimental community.

6/1/70

Human Development Seminar  
Registration Number: HD 180-1 BT

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SCHOOL OF NATURAL SCIENCE AND MATHEMATICS

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Title and Instructor:	Registration Number:
Science Lecture Course: Cybernetics and the Brain (Professor to be announced)	NS 101-1
Seminar: Automata Theory J. J. Le Tourneau	NS 105-1 JLT
Seminar: Innovation in the Emergence of Twentieth- Century Science (Professor to be announced)	NS 115-1
Seminar: Laboratory Physics Everett Hafner	NS 120-1 EMH
Seminar: Number Theory (Professor to be announced)	NS 125-1
Seminar: A Molecular View of the Environment John Foster	NS 130-1 JMF
Seminar: Time Kurtiss Gordon	NS 145-1 KG
Workshop: APL Everett Hafner and J. J. Le Tourneau	NS 150-1 H-L
Workshop: Calculus (Professor to be announced)	NS 155-1
Workshop: Chemical Pollution (A Workshop in Basic Chemistry) John Foster	NS 160-1 JF
Workshop: De Rerum Natura John Foster and staff	NS 165-1 JF

6/1/70

(continued)

SCHOOL OF NATURAL SCIENCE AND MATHEMATICS

2

Workshop: Ecology  
Ray Coppinger and William Marsh

NS 170-1 C-M

Workshop: Environmental Quality  
John Foster and Ray Coppinger

NS 175-1 F-C

Workshop: Radio Astronomy  
Courtney Gordon

NS 180-1 CG

6/1/70

## HAMPSHIRE COLLEGE

AMHERST, MASSACHUSETTS 01001

1 June 1970

Dear Student:

The following courses have been planned by the faculty of the School of Natural Science and Mathematics in order to bring into being the ideas about science that you have read about in Hampshire College 1970. I refer you to that catalog for a brief description of our program (page 46) and a full account (pages 54 to 71). You should have those ideas in mind as you read descriptions of our proposed courses.

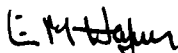
It is especially important that you understand what we mean by the terms Lecture, Seminar, and Workshop. I have discussed this under the heading "Approaches to Science" on page 60 of the catalog. We expect you to choose the mode of study in science most appropriate to your background and the depth of your interest.

Conspicuously absent from our plans are the conventional introductory courses in science and mathematics. We are not, for example, offering General Physics or any other formal survey of physical science. Instead, the principles of physics will be studied through their application to laboratory problems (NS 120-1). The same principles, with different perspective, will illuminate the workshop in radio astronomy, to be taught by an astronomer and a physicist. Basic chemistry, biology, and mathematics will be covered in similar ways.

Staffing of our School is incomplete. That is why the instructors in some courses are "to be announced," and also why some workshops (all of which will be led by two or more instructors) carry the name of only one faculty member. Our prospective new faculty members have assisted us in preparing the current set of courses.

Because of the unusual nature of our program, with its attempt to make science immediate and real for you, I urge you to think about these courses from a fresh point of view. Science and mathematics may have frightened, puzzled, or bored you in the past; you may be apathetic or angry as you witness abuses of science in the name of progress; you may be unaware of the history of science as a way of illuminating its present condition. If so, you may find that we have designed courses to interest you, as well as to provide all of our students with a literate view of science.

Your reaction to our present plans, and your suggestions for their improvement, are welcome here. They may be of use in revising the material now before you.



Everett M. Hafner

Dean

School of Natural Science and Mathematics

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Science Lecture Course: Cybernetics and the Brain

(Professor to be announced)

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As life grows more complex, our concern for the world about us is matched by our concern for the world within our skulls. Just as we must try to understand the ways in which billions of people can cooperate in a fast-changing world, so must we understand the ways in which billions of brain cells can cooperate to wield the integrated activity that marks the intelligent human being. After an initial discussion of campus, communes, and computers, which places our studies in the perspective of current social concerns, we shall focus on the ways in which computers and system theory can help us understand the processing of information in the brain. Our field of study is called cybernetics.

Different animals have very different brains. We shall see how the different ecological niches of cat, frog and man can be related to different structures in their brains--and in the process will learn the basic vocabulary or neuroanatomy. Just as a computer processes data on the basis of its program, so shall we see how the "state" of a brain, a compound of heredity and experience, can influence the way in which an individual explores his environment and chooses his actions, while building in his brain an "internal model" of his world. This is the basis for memory.

We shall analyze computer metaphors for Piaget's study of mental development in children, suggesting ways in which programs for intelligent behavior can arise from the function of genetically specified brain structures. We shall then see how computers have been programmed to exhibit "intelligent behavior" such as solving problems in logic and playing checkers. This will be contrasted with clinical studies of humans with brain damage, and will suggest the study of "neuroheuristic programming" in which different aspects of information processing are correlated with different structures of the brain. Finally we shall assess the future contributions that information science can make to the study of brain function, and speculate upon the eventual contributions of such studies to ecological and sociological problems.

The lectures will be given one evening a week and will be open to the public. Each lecture will be, if possible, self-explanatory out of the entire context of the course. Students enrolled in the course will meet in a seminar once a week for further study.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 101-1

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Seminar: Automata Theory

Professor J. J. Le Tourneau

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Automata theory is a branch of mathematics whose major development has occurred during the last 15 years. Today this area is one of the more active mathematical studies associated with the general field of computer science.

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

The word "automata" is currently used to describe any of several theoretical computing machines but in this course we shall be concerned primarily with finite automata or finite state machines. The mathematics associated with this study is richly interwoven, and provides a good example of contemporary mathematics without an especially developed mathematical background on the student's part. The course is constructed to encourage participation by students with varying degrees of mathematical strength.

During the study we shall read, among other things, the works of many active researchers currently working in the field. For a preview of the kind of work to be covered, see Part I of "Computation - Finite and Infinite Machines" by Marvin L. Minsky.



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Seminar: Innovation in the Emergence of Twentieth-Century Science

(Professor to be announced)

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We shall trace the development of ideas about the ultimate nature of matter and radiation in the nineteenth and twentieth centuries. A unified theory of physics evolved in the period 1800-1880, and we shall consider it. But our central concern will be with the transition period 1880-1920, which saw the breakdown of the nineteenth-century synthesis, and the birth of two great new systems: relativity and atomic theory.

The viewpoint to be examined is that the theory of relativity launched a radical departure from the classical conception of physics; it produced a basic revision of our theoretical picture of space and time. But we shall argue that atomic physics, on the other hand, was initially only an extension, and not a negation, of nineteenth-century views of the structure of matter. Thus we shall be looking at a contrast between conceptual continuity (atomic physics) and conceptual innovation (relativity).

There were "external" factors influencing these developments. In the rise of experimental atomic physics we look for institutional and technological factors; in relativity theory we examine the conditioning of philosophy by a general cultural milieu. We shall identify other external factors and examine their roles.

Selected readings in primary and secondary sources will form the basis for class discussion; additional material will be introduced in occasional lectures. Projects will be tailored to the needs and goals of individuals. Some, possessing the necessary background, may attack the scientific issues directly. Some may emphasize broader conceptual and philosophical trends, with attention to a general historical background. And some may extend their skill in science by working with classical historical examples.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 115-1

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Seminar: Laboratory Physics

Professor Everett Hafner

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The Seminar will plan, construct and study a set of experiments in physics, motivated toward illuminating fundamental physical principles and some of their applications, while using unsophisticated techniques in electronics and optics. In designing their problems, students will be encouraged to consider questions and applications outside of physics.

Some possible problems:

- Infrared absorption of the atmosphere
- A study of the human ear as acoustic detector
- Construction of an organic-dye laser
- Energy flow in biological systems
- Patterns of heat and radioactivity in rivers
- A computer-controlled music synthesizer
- Optimum design of a magnetic compass
- Polarization of skyshine

In addition to his work on a special problem, each student will review and extend his knowledge of fundamental physics, in a program of reading, study and discussion. Time-shared computer facilities will be available for self-instruction and laboratory applications.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 120-1 EMH

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Seminar: Number Theory

(Professor to be announced)

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Discovering the structure of the positive integers has caught the imagination of mathematicians for thousands of years. It is the essence of pure intellectual endeavor; yet one often has the feeling in exposing some of the intricate relationships that a profound sort of reality is being laid bare.

Many of the qualities which have made number theory appealing to mathematicians for so long also make it a subject well suited for an early course in mathematics. There are problems and techniques to suit many different levels of ability and interest. For those with an experimental or intuitive turn of mind, the computer can be used to generate large quantities of data from which patterns can be inferred and verified. There are many intricate and beautiful theorems for those who enjoy developing carefully reasoned proofs. Those with a background in calculus might find parts of analytic number theory to be stimulating and challenging. The problems range from many which are very easy to some which rank among the most difficult in all of mathematics; yet the statement of the most difficult problems can often be understood with little mathematical preparation.

We hope that the students in this seminar will be able to develop much of the theory for themselves, through the discussion and solution of problems.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 125-1

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Seminar: A Molecular View of the EnvironmentProfessor John Foster

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This seminar offers students an opportunity to participate in developing an essentially new field. Enough is now known about how metabolic processes in cells are controlled to begin explaining ecological behavior in terms of the properties of enzymes and the structures of cells. Dixon's two classic lectures on Multienzyme Systems are an excellent starting point, and his ideas are readily illustrated by some simple laboratory systems, such as the system of fermentative enzymes which can be extracted from yeast. In the process, students can become accustomed to thinking of enzyme systems as a whole rather than as a collection of discrete reactions, and can become familiar with some of the methods used to study these processes in the intact cell.

With these ideas in mind, the way is open to the much more intriguing prospect of applying them to ecosystems in the field. The bulk of the Seminar will then consist of field work, laboratory analysis, reading (primarily from the research literature, together with such books as Lehninger's Bioenergetics, Kormondy's Reading in Ecology, and Bonner's Control Mechanisms in Cellular Processes), seminar discussions and individual student projects. The choice of topics will depend upon the interests and backgrounds of the seminar group and on the availability of field sites and laboratory facilities. Possible topics might be the following:

Adaptation to permanent changes in environmental temperature.

Adaptations to environmental extremes, such as high altitudes or deep water.

Biochemical effects of chemical pollutants.

Oscillating biochemical systems--circadian rhythms.

A prior knowledge of biochemistry is not essential for this seminar, but it is a safe bet that a considerable amount will develop in the course of it.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 130-1 JMF

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Seminar: Time

Professor Kurtiss Gordon

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We suggest that the course be interdisciplinary, with subjects for study chosen by members of the seminar interested in special aspects of the concept of time. Possible subjects:

Time reversibility in physics

Entropy as the arrow of time

Radioactive decay as a long-term reliable clock

Subjective-objective measures of time

Mechanical, atomic and astronomical clocks

Clock paradoxes in special relativity

Aging

Biological clocks

Time in the techniques of literature

Tempo and rhythm in music

The work of the seminar will consist of reading, laboratory studies, and preparation of original papers.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 145-1 KG

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Workshop: APLProfessors Everett Hafner and J. J. Le Tourneau

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APL, a programming language, lends itself beautifully to time-sharing computer systems on which people with a variety of backgrounds seek a variety of degrees of competence in solving a variety of problems in a variety of disciplines. It is concise, quick to be useful, flexible, mathematically interesting, and growing in favor among computer scientists.

While learning the language, we shall attack problems of our own choosing where interest in solutions combines with appropriateness of the system (terminals linked to the UMass time-shared CDC-3600 central computer) at our disposal. There are four levels at which users interact with the system:

- . Non-programmed experiment and computation
- . Utilization of a stored library
- . Programming an assigned exercise, and
- . Programming an original problem.

They suggest, roughly speaking, the sequence of experiences through which an individual may pass, at his own pace, while mastering the system and forming his style. His work at the first level acquaints him swiftly with the fundamental conventions and capabilities of APL, and provides him immediately with a fast and versatile "desk calculator" for elementary computation. At the second level, he is free to list and edit programs in the library for his own education in technique. In programming an assigned exercise, he will not have access to APL solution; at the last level he will also be responsible for formulating and justifying the problem.

The techniques of APL are ideal for programming in mathematics, physics, astronomy, chemistry, geography and biology. But we also work on problems in the social sciences (economics, psychology, sociology) and the arts of language and music. We encourage work on interdisciplinary problems, such as those arising in the study of human ecology.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 150-1 H-L

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Workshop: Calculus

(Professors to be announced)

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One aspect of analysis which separates it from most other branches of mathematics is the central position which approximate, as opposed to exact, answers occupy. This workshop will emphasize the notion of approximation in attacking problems, making liberal use of the computer facilities to obtain usable results. The theory of calculus, and the problems for which exact answers are obtainable, will then be developed from the approximations.

Problems will be drawn from numerous areas, such as physics, economics, biology, as well as other areas which will be suggested by the interests of the students. Emphasis will be placed on functions of several variables throughout.

Some students will be content to work out the techniques of calculus. The more mathematically inclined may want to investigate the logical justification for the techniques and their limitations.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 155-1

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Workshop: Chemical Pollution (A Workshop in Basic Chemistry)Professor John Foster

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Management of chemical pollution is for the most part a chemical problem, since the most effective control procedure is to convert a pollutant by chemical means into something else which is either harmless, potentially useful, or both. Dealing with chemical pollutants thus becomes a study in basic chemistry, involving not only the interactions between molecules but also questions of equilibria, solubility, vapor pressure, ionization, reaction rates, and many other physical and chemical properties. Such information is necessary in order to make a rational choice of management procedures.

Chemical pollution is also most effectively managed at its source, where the composition of the system is usually much simpler and the responsibility for treatment lies with the polluter. This will be the initial focus of the workshop, for in this first year of Hampshire's operation, students will be doing their laboratory work in space not designed for that purpose. The detoxification, neutralization and disposal of the residues of a laboratory experiment will thus be a normal part of a student's responsibility in designing his experimental procedures. With this in mind the workshop will begin by considering the various classes of pollutants, and the chemistry of their production and disposal.

The group will organize a laboratory for handling and analyzing these pollutants, modifying established procedures so as to avoid creating additional toxic waste products as a result of their own analytical work. With this facility established, the group can then move into the field (where disposal often must ultimately take place) and join forces with students studying ecology. At this point a wide range of options for individual students to study will open up. Among these one could list specific kinds of industrial pollution, automobile exhaust and photochemical smog, the design of self-contained laboratory systems for the study of specific pollutants, and various types of domestic pollutants which the individual could control on his own.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 160-1 JF



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Workshop: De Rerum Natura

Professor John Foster and staff

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When a biologist is asked to define what life is, he generally answers by listing various processes, such as respiration, reproduction, growth, excretion, metabolism, which taken together constitute a living organism. These processes will form the central topics for discussion and argument by the staff and students of the School. We will consider the basic morphological and chemical mechanisms which underlie each process as it occurs in all cells, examine the modifications in complexity and detail which occur among different species, and discuss how these modifications are brought about by evolution and adaptation to environmental changes. Readings for the workshop will be drawn from the classic observational work of the early naturalists, such as Audubon and Thoreau; the writing of Darwin, Szent Gyorgyi, van Neil and others which laid the theoretical foundations of biology; and from monographs, essays, and research papers, which will provide the essential experimental details.

We will also observe living material in the laboratory. Consequently, we will have to argue about techniques for measuring a given life process, and about the choice of suitable organisms for study, since the process is often better represented, or more easily observed, in some species than it is in others. In this way the group will become familiar with a wide variety of living forms. Where possible specimens for study will be collected in the field, so that students can become familiar with the habitat in which a species lives as well as with its behavior in the laboratory. The question of habitat is also important in setting up life-support systems for maintaining or culturing the species for further study, and will serve to emphasize the often precarious existence which so many species lead, particularly in the face of encroaching civilization.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 165-1 JF

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Workshop: Ecology

Professors Ray Coppinger and William Marsh

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This workshop will be an introduction to the study of ecology, as done in the field, in the laboratory, in cemeteries, or wherever our interests lead. Field trips will almost certainly take us to coastal islands, mountains, and river bottoms, and work done on such trips should help the student gain an awareness of the relationships that exist within a habitat.

The study of communities of microorganisms in the laboratory will allow more precise control and measurement of some important variables, which may lead to the discovery of principles which can then be applied to actual field situations.

Ideas from mathematics, statistics, and computer science will be introduced both as needed for organizing information gained in the field and laboratory, and as a means of building speculative and probably over-simplified mathematical models of ecological systems.

From the discussion and disagreements of the two teachers, the student can evaluate the complementary strengths and weaknesses of careful empirical science and of strict mathematical deduction. From both men we hope he will learn to evaluate carefully arguments presented in books and articles on ecology and to examine critically his own assumptions and modes of inference. Such care is good discipline in general, and is especially necessary in a subject as complex, important, and controversial as ecology.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 170-1 C-M

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Workshop: Environmental Quality

Professors John Foster and Ray Coppinger

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The concept of our Workshop hinges on two basic considerations:

- 1) consciousness of ecological principles in environmental decision-making;
- 2) restoration of ecological balance in deteriorating environments.

One cannot be faithful to either of these without detailed knowledge of the forces, both biological and geophysical, which operate to maintain the general balance. The Workshop will introduce students to ways in which such forces must be considered in regional and community development. We shall study, in particular, the College's long-range plans to develop a campus whose ecological balance is sound, and whose relation is harmonious to its community and to the land on which it lies.

A possible outline for the Workshop is as follows:

Biological Decomposition

Mechanisms of autolysis and hydrolysis by bacteria and other decomposers. Practical applications in sewage and biological solid waste disposal; recycling of air and water, and the development of by-products from waste.

Energy Cycles

Thermodynamics, energy conservation, and energy flow through food chains. Practical aspects of energy sources (sunlight, organic fuel, nuclear fission): problems of availability, utilization and waste disposal.

Pharmacology of Alien Substances

Effects on cell metabolism, endocrinology, respiration, and reproduction, for specific pollutants: Pb, SO<sub>2</sub>, DDT, CO<sub>2</sub>.

Geochemical Cycles

Geological processes: erosion, evaporation, climatology.  
Hydrologic cycles: transport of minerals and nutrients.  
Biological modification of soil, water and climate.

Each example will lead to consideration of social and political action.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 175-1 F-C

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Workshop: Radio AstronomyProfessor Courtney Gordon

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The Workshop will introduce students to the branch of experimental physical science chosen by the College as one to be emphasized and supported from the beginning of our program. We favor it for several reasons. It is a relatively new science, exciting and intensely productive, in which experimental work of significance is possible at many levels of sophistication. Thus, even the beginning student can grasp many of the conceptions, problems and techniques of radio astronomy, while building a basic knowledge of other disciplines (physics, mathematics and optical astronomy) with which it is connected. In addition, the Five-College Astronomy Department, whose programs and facilities we share, is developing staff and instrumentation in radio astronomy. It has under construction a meter-wave receiving antenna which, when completed, will be the largest such instrument on the continent.

Our students will undertake a reading and discussion course in general astronomy, in parallel with laboratory experience in techniques of radio detection and data analysis. Their reading will encompass the history of astronomy from ancient discoveries to the sensitive and far-ranging observations of the present. It will include special topics (spectroscopy, radiation from stars, planetary astronomy, and the elements of cosmology) which are essential to a sense of the role that radio observations now play in widening our view of the universe.

As the students' knowledge and experience grow, they will be brought into contact with ongoing experiments at the observatory, at least to the point of analyzing new radio data with their own computational methods. In some cases, it is to be hoped, they will continue these studies beyond the constraints of the beginning course.

6/1/70

School of Natural Science and Mathematics  
Registration Number: NS 180-1 CG

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SCHOOL OF SOCIAL SCIENCE

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## Title and Instructor:

## Registration Number:

American Government: Separation of Powers  
R. Bruce Carroll

SS 101-1 RBC

Behavior Genetics  
Louise Farnham

SS 103-1 LJF

Conflict Resolution  
Barbara Yngvesson

SS 104-1 BBY

Law and Social Control: Drugs  
David Matz and Robert von der Lippe

SS 105-1 M-V

Law and the Environment  
Ray Coppinger and Kenneth Rosenthal

SS 110-1 C-R

Political Justice  
Lester Mazor

SS 115-1 LJM

Psychological Conceptions of Man  
Robert C. Birney

SS 120-1 RCB

Psychology: What does it mean to "understand"  
a complex organism?  
James Koplin

SS 125-1 JK

The Search for a Usable Past  
Penina Glazer

SS 130-1 PMG

Sex Roles in American Society and Politics  
Gayle Hollander

SS 135-1 GDH

Social Order Here and There  
Robert von der Lippe

SS 140-1 RvdL

Ward Five: Seminar in American Party Politics  
Franklin Patterson and R. Bruce Carroll

SS 145-1 P-C

6/1/70

## HAMPSHIRE COLLEGE

AMHERST, MASSACHUSETTS 01002

June 1, 1970

Dear Class of 1970:

It is a pleasure in my capacity as Dean of the School of Social Science to send you these course descriptions. They represent quite accurately the tastes and interests of the scholars that created them. As I am sure you are aware, one of our most important experiments at Hampshire lies in the decision to use the Division I seminar course as the device through which students will learn the arts of scholarship in the Social Sciences so that they will be able to design a program of study in Division II and be capable of carrying it out with progressively decreasing need for supervision from the faculty.

It is important to understand the goals we have set for ourselves in offering you these courses. We want you to join us in working through a certain set of our literature. We are convinced that the task of comprehensive organization surveying the varieties of materials now produced in the Social Sciences, and deciding the proper order in which you wish to approach the literature, are all decisions and practices properly left to the individual student. Having said that, we also want you to understand that we see ourselves as your primary resource for working through your own sense of study. To this end, we encourage you to think constantly how what we are prepared to present to you may be related to those things that you would want most to learn. It is for this reason that this array of courses does not look very familiar to anyone well acquainted with course lists produced by colleges. It is for this reason, too, that we are prepared to hold that it's of first importance that our course sections be no larger than sixteen students, and of secondary importance that each individual be able to elect his first choice. Many of you will be asked to accept your second or perhaps even third choices, and we are confident that if you do so you will soon find yourself as deeply engaged as possible.

There are some aspects of our planning for Social Science seminars which are somewhat unique. We are currently at work planning opportunities for course assignments which will take you off the campus for brief periods of time. It is our hope that the study of the Social Sciences at Hampshire will involve increasing sophistication on the part of our students with the techniques of field observation and action research. We want our students to be well-grounded in this particular mode, and to be fully aware of the practical as well as ethical considerations which bear on its use. For this reason, the initial plans for Division I students may seem modest, but we feel they are basic. A second area which we are planning to provide on a school-wide basis is training in the quantitative techniques now used by social scientists. Here we hope to provide a central core of instructional resources on which students and teachers may call as they need them in the pursuit of a particular topic. Both of these dimensions, field study and quantitative methods, are seen as practical arts for the Social Sciences which we want to make available constantly to our students and teachers.

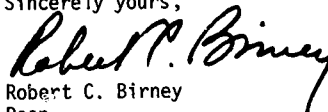
Class of 1970  
June 1, 1970

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It will be extremely helpful to us to see the results of this request you are now receiving. Our course planning is not complete nor is it totally insusceptible to change. We would greatly appreciate your telling us at this time your reactions to the options you are being offered. These will be taken into account before the final course listing is offered you for registration.

We are already looking forward to your arrival, and we are anxious to get underway. Best wishes for a productive summer.

Sincerely yours,

A handwritten signature in cursive script, reading "Robert C. Birney". The signature is written in dark ink and is positioned above the printed name and title.

Robert C. Birney  
Dean  
School of Social Science



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American Government: Separation of Powers

Professor R. Bruce Carroll

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This seminar will focus on the study of the origins and framing of the Constitution and Supreme Court decisions interpreting the powers of the Court, the President and the Congress as articulated in the Constitution. Starting with a simulation game of the Constitutional Convention, the class will examine its ideas of what a constitution should be as compared to the views of the framers of the Constitution. Those views will be obtained from Farrand's Records of the Federal Convention and from the Federalist Papers.

Subsequently, the seminar will compare the intent of the framers to Supreme Court interpretation. Emphasis will be placed on the powers of judicial review, of war and internal security, and of investigation and commerce. Heavy use will be made of primary source materials, and the seminar will introduce students not only to the case method, but also to theoretical and practical considerations of the study of political science.

6/1/70

School of Social Science  
Registration Number: SS 101-1 RBC

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Behavior GeneticsProfessor Louise Farnham

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The study of behavioral genetics will focus upon the origins of individual differences in important human characters including intellect, personality, and psychopathology. Race and social class will be discussed as genetic constructs. The course will be concerned with the interaction of heredity and environment in determining behavior, although the contribution of heredity will be emphasized.

The study of basic methods and research results will include attention to such concepts as polygenic inheritance, single factor inheritance, threshold traits, reaction range, heritability, and selection pressure. Correlational methods, the twin method, and pedigree methods will be discussed as well as some methods which are limited to subhuman mammals. Mammalian analogs of human traits will be studied in the context of human variation; for example, genetic aspects of subhuman learning will be discussed in the context of individual differences in intellect.

Basic readings will be found in Dobzhansky's Mankind Evolving, Carter's Human Heredity, and Fuller and Thompson's Behavior Genetics. The reading materials will also include research articles and theoretical papers by such contributors as Vandenberg, Gottesman, Rosenthal and Kety, Kallman, and readings from Manosevitz, Lindzey, and Thiessen's Behavioral Genetics: Method and Research.

The principal goal of the course is to attain familiarity with the progress made in applying basic concepts from genetics to social science problems. Enormous advances in genetics in the past few decades have made possible the application of sophisticated methods to problems of behavior; to some extent genetic variation can be included as a general parameter in the study of behavior. The course also aims to facilitate integration of concepts from various disciplines concerned with behavior: material from the behavioral sciences, particularly psychology, will be linked with and related to concepts from the biological sciences by means of the methods, designs, and concepts of genetics.

6/1/70

School of Social Science  
Registration Number: SS 103-1 LJF

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Conflict Resolution

Barbara Yngvesson

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Using cross-cultural data, alternate forms of dispute settlement and their social correlates will be investigated. Material used will be drawn from studies of African, Latin American, and U.S. communities. Emphasis will be placed on the relationship of formal legal systems of protection and redress to informal social practices which achieve similar results.

The methodological issues of comparative analysis will be treated and the nature and usefulness of concepts derived from such analysis will be discussed. Perspectives gained from the comparative approach will be used to treat selected topics of social conflict now facing our society. Prospects for change in current practices will be assessed using the criteria of comparative analysis developed in the course.

Major sources will be Cardozo's The Nature of the Judicial Process, Hoebel's The Law and Primitive Man, and Nader's Law in Culture and Society. Monographic reading will include Gluckman's The Judicial Process Among the Barotse of Northern Rhodesia, Feifer's Justice in Moscow, and Nader and Metzger's Conflict Resolution in Two Mexican Communities.

Students wishing to pursue the topic further during Winter Term may plan their work as part of the course.

6/1/70

School of Social Science  
Registration Number: SS 104-1 BBY

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Law and Social Control: Drugs

Professors David E. Matz and Robert von der Lippe

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The seminar will examine a range of social responses to the violation of norms, spending a good deal of time on the legal responses and contrasting them with other forms of social control.

It will begin with an intensive look at the techniques available on a college campus for the control of drugs. Areas to be discussed include the efficacy of law on a college campus, the relationship of law to other campus institutions, the significance of drugs to the culture, the place of the drug norms on the campus, and the flexibilities and rigidities of institutional response. Students will be asked to examine their own responses to the inevitable tensions and inconsistencies caused by drugs on college campuses, and to investigate the role of those responses and the role of authority in setting the context for effective social controls.

The middle section of the seminar will examine the techniques employed to cope with drugs by institutions not on the college campus. The social and legal control questions uncovered in the discussion of the campus will be used to investigate the workings of juvenile court and the role of drugs in the ghetto and suburban culture. Again, a major focus will be on the variety of social control techniques and their differential efficacy in dealing with deviance. Questions to be addressed include the problem of effective social response in the face of inadequate scientific information and in the face of ambiguous moral attitudes; the ways in which the presence of a variety of social norms can influence an institutional response to disobedience; and the constant tension between the needs for individualized response and the demands for systematizing such responses.

The final segment of the seminar will utilize the data and views obtained in the first two segments to examine some prominent theories of social control and the role of law. Earlier assumptions about the nature of man, the definition of law, the concept of justice, and the potency of institutions will be studied. Of particular interest will be the place and control of institutional discretion in response to deviant behavior. At the close, the seminar will review its earlier efforts at designing controls for campus use of drugs and

will attempt to draft an appropriate approach for the college community to take.

The seminar will be taught by a sociologist (Mr. von der Lippe) and by a lawyer (Mr. Matz). Some sessions will be held jointly, some apart. Students will be encouraged to develop independent projects, analogous to the narcotics problem, to provide contrasting experience to that of the classroom. The major objective will be to expose the students to both the legal and sociological perspectives as they are applied to a fairly specific behavior.

Readings will include Deviance and Control, by Albert K. Cohen, and The Limits Of The Criminal Sanction, by Herbert Packer. In addition to readings, there may be observation of police practice and juvenile court procedure.

6/1/70

School of Social Science  
Registration Number: SS 105-1 M-V

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Law and the Environment: Studies in Public Decision-making

Professors Ray Coppinger and Kenneth Rosenthal

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The course is concerned with the process of decision-making by some governmental agencies in contemporary America. It involves the detailed examination of a few cases of decisions dealing with environmental matters. It will examine the thesis that the decision-making process under law, though sometimes defective, provides the means for effecting change in a complex technological society without destroying that society in the process. The course will be taught by a lawyer and a scientist. Cases will probably be chosen from among the following:

1. The Supersonic Transport: the real costs of the decision to build it.
2. The North Slope oil leases: Decisions affecting the fate of the Alaskan economy and wilderness.
3. The Vahlsing Potato Company: to build or not to build a factory in Maine.
4. DDT in Wisconsin: to ban a pesticide.
5. The Center School Complex: a study in local decision-making in Amherst.

The course will address such questions as: Who decides? What issues are decided? What issues are never decided? What facts are known and who knows what facts are? What is the use of expert evidence, expert opinion? When is a decision made? How can a decision be changed?

The course will rely on scientific data, the documents of the three branches of government, and secondary sources of information which will be subjected to scientific and legal analysis. Whenever possible, the course will involve people who had roles in the decision-making process.

6/1/70

School of Social Science  
Registration Number: SS 110-1 C-R

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Political JusticeProfessor Lester Mazor

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This seminar will examine the use of the law and particularly the processes of the courts in the struggle over political power. The goals of the seminar are to establish some familiarity with the principal characteristics of a trial in a court of law, to examine the functions and limits of the trial process, to explore theories of the relation of law to politics, and to extend our understanding of law, justice, government and politics and their relation to each other.

We will begin by examining the components of a conventional trial on a matter which is not highly charged with political consequence or emotion. The roles of the parties, their attorneys, witnesses, judge and jurors will be explored, and theories of the function of a trial will be considered. Attention will then shift to a number of notable political trials. The bulk of the course will consist of close study of each trial including the conduct of the defendant, prosecutor, defense counsel, and judge. We will also consider the nature of the myths which arise from a political trial and the functions that they serve. What political ends were sought and obtained and whether justice was done will be persistent questions.

The materials for discussion will include transcripts of the trials and contemporary news accounts wherever possible. We will also read Koestler's Darkness at Noon and Kafka's The Trial. Since I would like to include discussion of the film "Z" and cannot guarantee that it will be shown in the vicinity of the college during the course, students who plan to join the seminar should try to see the film this summer if they have not already done so.

Each student will select a particular trial and become as expert as possible in all of its aspects. In some cases this may call for interviews with participants. We may also plan one or more programs to present a view of those trials which are of great current interest to an audience beyond the membership of the seminar.

We will plan to attend one or more ordinary trials as a group; students also are encouraged to attend court this summer if they can. If the occasion to attend a political trial presents itself during the seminar, we shall try to seize it.

6/1/70

School of Social Science  
Registration Number: SS 115-1 LJM

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Psychological Conceptions of Man

Professor Robert C. Birney

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The literature of the major personality theorists will be organized in a comparative manner to permit the appreciation of the value and limitations of each position. Preparation of the necessary skills of readership will be achieved with the use of units devoted to the basic concepts and methods of modern psychologists whose work contributes to each data source. The development of basic criteria for comparative use will also accompany the reading of each theorist. The aim will be to show how method, source of observation, and choice of language determines the utility of each theory. Direct experience with data collection and analysis will be used to provide experience with the uses of personality theory. The works of Freud and Murray, Lewin and McClelland, and Skinner will form the core reading with numerous sources dealing with basic concepts of psychology providing support.

The basic meeting times will be two-hour units meeting twice each week. The first period will be devoted to measurement, methods, and data processing with the second period concentrating on the interpretation of observations according to the theoretical position under study.

6/1/70

School of Social Science  
Registration Number: SS 120-1 RCB



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Psychology: What does it mean to "understand" a complex organism?

Professor James Koplin

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This course will examine the psychological aspects of the "understanding" referred to in the title, although these cannot be considered as completely isolated from biological and philosophical characteristics. In order to make this manageable, some restrictions must be placed on "psychology" and I would propose remaining within the two traditional core areas of perception and learning.

There are two very different approaches or points of view that dominate current psychological studies--behavioristic and cognitive. We will examine works from both camps in order to try to extract fundamental differences (or possibly to show that no such differences exist). The sources will include current textbooks in psychology as well as research articles published in journals.

Some time should also be spent examining the origins of this conflict. The work here may extend in several directions. I am particularly interested in an evaluation of contemporary psychology in the light of the view of the history of science expounded in T. S. Kuhn's The Nature of Scientific Revolutions, and also in the influence that the machines of a given era (from clockwork to computers) have on the form of psychological explanations of the same period.

Further delineation of the topics to be considered, the general conduct of the class, term requirements, etc., will be worked out in consultation with the enrolled students at the initial meetings.

6/1/70

School of Social Science  
Registration Number: SS 125-1 JK

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The Search for a Usable PastProfessor Penina Glazer

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From the earliest histories written by the Puritans to the current challenge by "new left" scholars, historians have attempted to construct an image of the past which aids their understanding of American society. This course will study several of the major schools of history, and the relationship between the "historians" view of the past and their view of the present. How does this affect the nature of questions asked, the types of material utilized, and the ultimate interpretations?

Three case studies of current controversies in American history will be considered in order to analyze the influence of contemporary schools of thought on ongoing scholarship. Our aim is to increase our sensitivity to the limitations of "objective" scholarship, to enrich our awareness of the living quality which each generation injects into its past, and to improve our ability to analyze scholarly works perceptively and critically.

The case studies to be considered are:

- a) the nature of reform: the case of the Populists

Were the populists anachronistic dissenters who refused to face the realities of industrialization and progress, or were they men forced to bear the brunt of modernization, who pointed up many of the problems in the rapidly expanding free enterprise system? What kinds of questions do different historians ask in selecting their focus of research? How does this affect their interpretations?

- b) the black and white view of the past: the Nat Turner controversy

There is a considerable amount of research currently being undertaken by blacks who believe that white historians have ignored and/or misinterpreted black history. Questions are now being raised whether or not it is possible for a white man to have the appropriate experience to recreate the history of blacks with accuracy and sensitivity. The recent novel by William Styron,

The Confessions of Nat Turner, was the subject of a serious controversy and ten black writers have published a response to Styron. What are the different perspectives offered by these writers? Is there a correct interpretation?

c) the role of violence in shaping the American past

Urban riots, rising crime rates, and political assassinations have resulted in a renewed interest and reinterpretation of violence. Presidential commissions, social scientists, and journalists have studied the problem. Historians, too, have begun to review the role of violence in the past. Several questions have emerged: Is violence as "American as apple pie" as H. Rapp Brown has stated? How important was the vigilante tradition or the use of violence by the state to control dissent? Or, is there currently an overemphasis on these "aberrations" in a country which some claim is notable for its absence of class conflict, its stable political system, and its fundamental consensus on major social and political issues?

6/1/70

School of Social Science  
Registration Number: SS 130-1 PMG

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Sex Roles in American Society and PoliticsProfessor Gayle Hollander

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Proceeding from the assumption that the study of political behavior must be based on an understanding of cultural norms and values, the seminar will be designed to study the effects of sexual roles on political attitudes and modes of participation. Differences in social, legal, and economic status between men and women will be examined for their effects on political life. The relationship of variables such as education, urban versus rural residence, age, family and employment status, and military service to sex will be studied. Attention will be devoted to a comparison of the political socialization of the two sexes: the development of attitudes toward authority, feelings of personal efficacy, and the acceptable range of public behavior. Patterns of personal influence, voting, leadership, and Party affiliation will be surveyed. The general literature on political behavior will be used as a source; particular emphasis will be given to the growing body of material on the position of women in American society. Early feminist movements and the current Women's Liberation Movement will be studied.

Members of the seminar will be encouraged to contribute personal experience as well as do some original research on sex differences in political life. Approximately half of classroom time will be devoted to lectures and half to discussion. The last third of the semester's meetings will be devoted to presentation of individual work by participants in the seminar.

6/1/70

School of Social Science  
Registration Number: SS 135-1 GDH

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Social Order Here and There

Professor Robert von der Lippe

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This seminar will combine two general objectives: the introduction of sociology as a field of study and the exposure of Division I students to elementary social research methodology. For the accomplishment of the first objective, lectures and seminars will focus upon the concept of social organization and the specific elements of norms, roles, statuses, groups, associations, organizations and stratification. Readings will be assigned on each of these elements to be drawn from various reprint sources.

After each element has been studied, conceptually and empirically, the students will design a research project to test for that element's presence in some population. More specifically on this latter point, students will learn the rudiments of how to construct interviews and questionnaires, do content analysis, engage in participant observation, draw samples, specify concepts, formulate hypotheses, and order and interpret data under analysis. They will begin by using themselves as subjects, then moving to their college population, and then finally to the surrounding community and its resources.

If the course is successful, the reasons for sciences of society will be self-evident by the end of the semester. In addition, however, a degree of expertise will be learned so that students can move on to Divisions II and III with some methodological sophistication both for their own independent study use and also for teaching such methodology to their fellow students.

6/1/70

School of Social Science  
Registration Number: SS 140-1 RvdL

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Ward Five: Seminar in American Party Politics

Professors Franklin Patterson and R. Bruce Carroll

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This seminar will examine the structure and role of the American political party system. It will focus on questions such as party organization, operation, purpose, and will include intensive field work in the 1970 political campaign, principally in Ward 5 of the City of Holyoke. The seminar will conclude with consideration of some of the crucial political issues confronting the United States today and the ability of the American party system to contribute to the resolution of those issues.

6/1/70

School of Social Science  
Registration Number: SS 145-1 P-C

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SCHOOL OF HUMANITIES AND ARTS

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## Title and Instructor:

## Registration Number:

American Thought and Institutions Francis Smith	HA 101-1 FDS
Film Workshop Jerome Liebling	HA 110-1 JL
Hispanic Literature; The Black Presence Robert Marquez	HA 115-1 RM
The Idea of Social Change and Revolution in Caribbean Culture; Robert Marquez	HA 120-1 RM
The Making of Contemporary Music Robert Stern	HA 125-1 RS
A Man: <u>Albert Camus</u> James Haden and Sheila Houle	HA 130-1 H-H
The Man-Made Environment Norton Juster	HA 135-1 NJ
The Popular Arts in America Estelle Jussim	HA 140-1 EJ
Reason and Reality: God, Science, and Philosophy James Haden	HA 145-1 JH
Still Photography Workshop Jerome Liebling	HA 150-1 JL
The Study of Literature Sheila Houle	HA 155-1 SH

SCHOOL OF HUMANITIES AND ARTS

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Time-Space Laboratory  
Arthur Hoener

HA 160-1 AH

Twentieth Century American Black Literature  
Eugene Terry

HA 163-1 ET

Visual Arts Laboratory  
Arthur Hoener

HA 165-1 AH

6/1/70



## HAMPSHIRE COLLEGE

AMHERST, MASSACHUSETTS 01002

June 1, 1970

Dear Student:

Here in the first full course listings you will find a quite astonishing range of offerings for the Fall term. Remember this at the outset as you begin to plan your studies for Division I: the courses in 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 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 be given 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 lists 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 sixteen 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

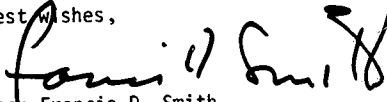
Letter from Dean of H&A  
June 1, 1970

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discussion table to some hands-on experience in the studio or out with field problems.

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."

Best wishes,

A handwritten signature in dark ink, appearing to read "Francis D. Smith". The signature is stylized, with the first name "Francis" written in a cursive script and the last name "Smith" in a more upright, blocky style. There is a small mark above the "i" in "Smith".

Dean Francis D. Smith

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American Thought and Institutions

Professor Francis Smith

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The cultural history of America. A study of the origins, nature and present tendencies of the cultural ideals, values, and institutions that shaped the history of the United States.

As the European whites attempted to dominate the North America mainland by the application of force, political organizations, commercial enterprise and invention, they developed institutions as contradictory as a slave society and a constitutional democracy. In this course we will search closely what Melville would call "the inside narrative" of American history--i.e., the tensions and contradictions between ideal and fact in American life, and between dominant and minor cultural themes in various periods.

Special attention will be given to the biographies of those individuals and groups (like Jefferson or the Cherokee Indians) whose actions and fate make explicit some of the implicit assumptions of the American culture and raise to consciousness the unconscious forces that shape society in any age.

Specific topics for special study will include: the Puritan mind and its heritage; Constitutional law and revolutionary tradition; war and peace as instruments of national policy; the Presidency and the American political system; Racism and its consequences in contemporary America; and the "Intellectual" as a defined social role in America.

6/1/70

School of Humanities and Arts  
Registration Number: HA 101-1 FDS

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Film Workshop

Professor Jerome Liebling

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The film as personal vision.

The film as collaborative effort.

The meaning of thinking visually and kinesthetically.

Film as personal expression, communication, witness, fantasy, truth, dream, responsibility, self-discovery.

The Workshop will be concerned with production and seminar discussion, field problems and research.

Topics to include:

History and development, theories of film construction, camera, director, editing, sound, narrative, documentary, experimental films, use and preparation, super 8, 16 mm, production.

The past 75 years has seen the motion picture rise to a position of International Language. It has transcended just the bounds of entertainment, to provide everlasting documentation of the world, its people and events. It has given added scope and incisiveness to every area of human activity. Our image and understanding of the world more often is gained through film and photographs than personal experience. The esthetics and techniques of a medium so broad in implication should be understood by all.

6/1/70

School of Humanities and Arts  
Registration Number: HA 110-1 JL

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Hispanic Literature; The Black Presence

Professor Robert Marquez

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This course will deal with the Black man as a type, theme and presence in the prose and poetry of Spanish America since independence. The aim of the course is to explore the attitudes and ideological assumptions reflected in the varying approaches to the Negro literature and understanding how these in turn are related to the specific (social, political and historical) circumstances prevailing at any given time.

The major emphasis will be on the Caribbean area and, in particular, on the growth of the Afro-Antillean Movement of the late 20's and 30's; its aims, "membership", literary content and significance; the transformation it has undergone and its relationship to current trends.

In focusing on the contemporary period, we will pay special attention to the writing of José Martí, Alfonso Hernández Catá, Alejo Carpentier, Palés Matos, and Nicolás Guillén.

In order to provide some sense of perspective, the course will begin with a brief glance at the treatment of the Negro in Classical Spain, through a review of excerpts from the literature of the Golden Age. The course will be conducted in English, the readings will be in Spanish, save where translations are available.

6/1/70

School of Humanities and Arts  
Registration Number: HA 115-1 RM

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The Idea of Social Change and Revolution in Caribbean Culture

Professor Robert Marquez

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The seminar will deal primarily with the ideas of social change, history and revolution in the works of Alejo Carpentier (Cuba), Desnoes (Cuba), and Asturias (Guatemala) and will compare their works to the work of others on the continent and in the Caribbean as we find both authors and translations applicable.

6/1/70

School of Humanities and Arts  
Registration Number: HA 120-1 RM

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The Making of Contemporary Music

Professor Robert Stern

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The thrust of this course will be performance. The amount of performance and the exact nature of the works to be read will depend, of course, on the skill and experience of the players. Contemporary music will be stressed, but earlier music will also be chosen, especially when cogent parallels with the 20th century can be drawn. Excursions into controlled chance performance will also be attempted, as well as electronic/live juxtapositions.

In addition to performance, the following areas will be examined:

- 1) "Two-musics" (Lukas Foss)
- 2) The idea of transcription, e.g., Bach-Webern as opposed to Bach-Carlos
- 3) Work in the Electronic Music Studio

6/1/70

School of Humanities and Arts  
Registration Number: HA 125-1 RS

SCHOOL OF HUMANITIES AND ARTS

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Time-Space Laboratory  
Arthur Hoener

HA 160-1 AH

Twentieth Century American Black Literature  
Eugene Terry

HA 163-1 ET

Visual Arts Laboratory  
Arthur Hoener

HA 165-1 AH

6/1/70



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The Man-Made Environment

Professor Norton Juster

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This course is about the making and understanding of Human Environment - the cities and towns and places where people live--and the way in which human activities and needs find expression in forms that reflect their lives and values. It is concerned with perception, visual awareness, a developed sensitivity to surroundings, an understanding of place and a sense of the individual as an effective force in altering or creating his own environment.

It is primarily a workshop course, using research, analysis and design projects of a non-technical nature to investigate and uncover environmental problems and to understand the creative processes through which environment is made.

The subject of these investigations may include any one or number of the following:

- 1) Man--how he sees and senses his environment. His physical capacities and limitations. His functional and psychological needs as concern his environment--how he adapts and uses.
- 2) The physical basis of environment.
- 3) The study of urban form as it has evolved--patterns of settlement, planned and unplanned.
- 4) The environment today--the problems bequeathed from the past--the failure of technology--the dehumanized environment.
- 5) The approach to creating environment--the identification of human needs today--definition and analysis of the problems of urban design and factors which limit and effect it.
- 6) The vocabulary of environmental form and the aesthetics of environment. Visual thinking and visual communication.

7) The creative act--translation of program, perception and technical skill into urban form--the cooperative Art.

8) Future projections--the new environment.

While much of the work will require visual presentations and analysis, no prior technical knowledge or drawing skills are necessary.

6/1/70

School of Humanities and Arts  
Registration Number: HA 135-1 NJ

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The Popular Arts in America

Professor Estelle Jussim

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What are the popular arts?... Are they solely the products of the mass media and commercialism?... Can the idea of hierarchies of aesthetic values be traced to definite historical origins?... Does "culture lag" influence the acceptance of the popular arts by the elite?... What is a mass audience?... Why do people go to specific types of films, or watch soap operas, listen to radio, read stereotyped literature, or follow the "funnies"?... Are there hidden psychic benefits to consumers of Kitsch and all commercialized culture?... How can we discover the implicit ideologies which the popular arts promulgate?... Do popular artists differ somehow from "fine artists"?... Is America surpassing ancient Rome in the brutality, violence, sexual sensationalism of its popular and mass shows?... Should we censor?... How may we use the insights of sociology, social psychology, and media analysis to enlighten our understanding of the functions and effects of the popular arts in America today?

These are some of the basic questions which this course will encounter. Students will seek their answers in the conflicting testimony of aestheticians from Susan Sontag to Clement Greenberg, sociologists and cultural historians from David Riesman to Ernest van den Haag. They will begin to decipher the artifacts of popular culture: films, videotapes, radio scripts, songs, cartoons, popular fiction, examining them as carriers of cultural ideas.

Participants in the seminar will have the opportunity of presenting multi-media programs to demonstrate their discoveries in content analysis, and will be encouraged to develop objective modes of conceptual inquiry.

6/1/70

School of Humanities and Arts  
Registration Number: HA 140-1 EJ

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Reason and Reality: God, Science, and Philosophy

Professor James Haden

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We seem to be living in a time when there is an imperfectly articulated sense of uneasiness about reason and its work, and a trend toward disparagement of it. To parallel the long-standing attacks on "eggheads" and their ilk, there have sprung up magics and mysticisms, pseudo-sciences like astrology, and chemical modifications of the mind as replacements for older versions of rationality.

Some of the justification offered for this revolt against reason centers on a revulsion toward what is taken to be science and its works, which is identified with reason. That identification and rejection has its disadvantages when it prevents recognition of the many faces that reason can wear and has in fact worn.

Therefore the aim of this course is to explore some of the nuances of reason as they have been manifested in human history, in order to get a clearer notion of what is reasonable and what is not. Reason has always been considered to be our faculty for discovering and grasping reality; it is impossible to examine its workings without taking into account its inseparable connection with its objects, which are taken to be real. The very rejection of scientific reason and its objects entails both a new view of our faculty of knowing and of reality itself.

Given but twelve weeks, it is only possible to sample the range of human responses to the problem of reason and reality, but we will have a look at forms which include divinity and which exclude it, which draw on a diversity of tools and techniques: sense, language, logic, intuition, and so on, and which have styles that can be called scientific, or poetic, or philosophic, and which are drawn from different ages.

The actual content of this course will be somewhat flexible; there will be opportunity for any predominant interests and concerns of the students enrolled to enter into its conduct.

6/1/70

School of Humanities and Arts  
Registration Number: HA 145-1 JH

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Still Photography Workshop

Professor Jerome Liebling

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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, 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, lectures on history and contemporary trends in photography, and field problems to encourage awareness of the visual environment.

Some areas of concern:

Photography as fine art: the personal statement.

Photography in communication, education, inter-disciplinary experience.

The photographic project: research, procedure, presentation.

Photography as social archive.

Development of photographic esthetic.

Photography: History and Criticisms.

The middle area: photography-film, slide-show, mixed-media.

"A lesson for anyone -- to follow a great photographer, and look at what he shoots." Jack Kerouac

6/1/70

School of Humanities and Arts  
Registration Number: HA 150-1 JL

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The Study of Literature

Professor Sheila Houle

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The course title is deliberately ambiguous as it is meant to indicate at once the concern in this seminar both with the nature of literature as verbal art and with the ideas about literature that men have had through the ages. Studying major literary theorists from Aristotle to contemporary British and American critics enables us to discover the range of questions men have asked about the nature and function of literature and to consider the adequacy of these concepts. Ultimately, such study should help us to clarify and expand our own ideas about literature and its value and to evaluate our own or another's theory of literature.

Learning to ask the right kinds of questions about literature, which is basic to any serious involvement with it, can be achieved in a variety of ways. In this course we will use seminar discussions of the readings, tutorials based on smaller groups' study of questions that particularly interest them (for example, one group might be considering the relationship between a poet's statement of his theory and his poetic practice), and individual efforts to articulate a personal statement of literary theory.

6/1/70

School of Humanities and Arts  
Registration Number: HA 155-1 SH

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Time-Space Laboratory

Professor Arthur Hoener

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The study of multi-media modes of conceptualizing. Experiments in physical and psychological "communicating" environments using graphic, typographic and photographic forms with concern for informational content. Emphasis upon the effects of light, time, space and motion.

To include theater games, stage presentations, slide tape presentations, and environmental studies.

This course will be graphics oriented (communications).

6/1/70

School of Humanities and Arts  
Registration Number: HA 160-1 AH

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Twentieth Century American Black Literature

Professor Eugene Terry

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The emphasis in this course will be on the major fictional forms Black writing has taken in this century in America. The novel and the short story will receive particular attention.

Black literature will be read and studied as exemplifying in special ways the dynamics of literary form. There has been a notable tendency among critics of Black literature to underrate the study of form--for example, the classic form of Black autobiography, with its recurrent movement from despair to insight through successive attention to self, race and humanity. Examples of biography and autobiography will be studied in this perspective, as well as to understand better the general implications of Black literary themes, characters and styles for wider cultural questions of the relationship between literature and human history.

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School of Humanities and Arts  
Registration Number: HA 163-1 ET



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Visual Arts Laboratory

Professor Arthur Hoener

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Visual Fundamentals will be developed around basic visual principles that would provide the student with a working visual vocabulary.

Lectures will explore how various visual ideas have been used by the artist in his search for meaning. This course will involve the exploration of ideas and discovery, not simply problem-solving. Design process will be the major objective (i.e., how to go about studying visual things).

Areas that might be covered are:

- 1) Line as an expressive and organizational device.
- 2) Figure-ground relationships.
- 3) Shape and its archetypal context.
- 4) Color and its ambiguities... etc.

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School of Humanities and Arts  
Registration Number: HA 165-1 AH

## FOREIGN STUDIES

Professor James Watkins

Languages: French, Spanish

Hampshire College, as a member of the Five College community, expects the Connecticut Valley to become a center for international study.

To that end, it is making as early as its opening year three significant contributions:

- The Hampshire College Summer Language Institutes. Distinguished linguists, directing the application of their own research in programmed learning and assisted by a group of exceptional teachers, will enable the apt student to acquire in eight weeks a proficiency equivalent to three years of high school or two years of college instruction.
- The Hampshire College Certificate of Foreign Studies. A unique award confirming high academic achievement, the Certificate offers you the opportunity of earning endorsement, by official government standards, of professional competency within a chosen area of expertise. Our confidence in the selection of our students leads us to believe that many of them will want to add to their degree this proof of extraordinary ability.
- A pilot program of home-based admission to the Université de Paris. Under this program you may, without leaving the Hampshire campus, apply to the University of Paris, be admitted, and prepare an individual plan of study to be supervised by a professor of the Paris faculty acting as your adviser during your year in France. If you have never studied French previously, your time for preparation need only be lengthened by one summer.

As you see, foreign language plays an important part in all present and future planning for the College. You might then find it odd that we have set down no language requirement for entrance or graduation. This is simply because

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(Continued)

we recognize that not all students have the wish, the time or the aptitude to develop proficiency in language to a point of excellence where the effort made is fully rewarded. For us, anything less is just too little.

Foreign language thus means to us, first, the mastery of another man's word. But mastery alone can be a game. Being able to conjugate a verb in Spanish, some will then play at conjugating it in French, then in Russian, then in Cantonese, then.... Now perhaps the compulsive conjugator is not all that bad. But he is a little like the perpetual sophomore, the sort who finds a permanent home in Basic Studies. To go beyond Basic Studies is to show purpose. And to show purpose in language is to use it, to add its depth to your perception of a field of study, whatever that field of study might be.

For that reason we were naturally led to choose French and Spanish as the first languages to be offered at Hampshire. In addition to their cultural richness, the importance of each as a world language is manifest. Joined to English, French opens for you most of the African Continent and Southeast Asia, Spanish most of the Western Hemisphere, and either language will open the Caribbean, where Hampshire will concentrate its first area studies.

With this in mind, we did not wish to wait until the fall of 1971, when we shall have the graduates of our first Summer Language Institutes. Our continuing program in French and Spanish will therefore begin this September. The program is called "continuing" because it goes on from where the S.L.I. will have stopped, and for it, your language training should be equivalent to that of the S.L.I. graduate: let's say three years of high school --the last three years, we hope--, during which the language was stressed much less as a province for literary analysis than as a means of communication and self-expression.

In the continuing program, you will have four hours weekly of class meeting. One hour will be lecture and discussion, correcting some of the errors, resolving some of the problems or helping you avoid some of the difficulties revealed during the previous week. The remaining three hours will be divided into two meetings, each one and a half hours in length. Here you will meet with your instructor in a small group of six. Part of the time will be devoted to an exercise plan, but most of it will be the result of your own design. You will be expected to take some oral part in every meeting. In one meeting out of two, you will be partly responsible for the entire class. In one meeting out of six, you will be largely responsible for the entire class, choosing the subject yourself and organizing the discussion. All of these meetings will of course be conducted in the language. Insofar as an average can be determined--which isn't very far--you should be prepared to spend a total of ten hours weekly, in class and in preparation. During the January term, you should be

prepared to undertake and complete an independent project as defined through conversations with your instructor.

At the end of the year, your proficiency will be rated by an outside test or interview, according to the scale established for government agencies by the Foreign Service Institute. A satisfactory rating for all skills will be described as "R(reading) 2" and "S(peaking) 2."

This proficiency rating will be the usual prerequisite for admission to Hampshire College Foreign Studies, Area Studies, Field Work and special programs where use of the language is necessary.

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### The Program in Language and Communication

The Program in Language and Communication, an experimental beginning to what in time may become Hampshire College's fourth school, will offer courses and concentrations centered around the study of language and its uses. In order to study both natural and artificial languages, several increasingly active and interrelated fields will be drawn together to form the focus of the group's work. These fields include areas of mathematics (especially mathematical logic), computer and information science, linguistics, psycholinguistics and parts of cognitive psychology, and those aspects of philosophy directed toward the examination of language and man's dependence upon symbolic communication. In the usual undergraduate curriculum these studies are fragmented by departmental boundaries. Hampshire College hopes to establish a new area of undergraduate emphasis.

The first Language and Communication course, offered to all Division I students, will be given in the Spring term (1971). The course will begin with a three-week series of general introductory lectures followed by seminar work in roughly twenty topics. The topics will range from formal investigations of language and logic to considerations of mass media and visual communication. The student will choose one of these seminar topics for more intensive study during the last nine weeks of the term. The eventual list of seminars to be offered will be influenced by student interest. During the early weeks of the Fall term, the Language and Communication group will present more detailed information concerning the Spring course and the general program. (If you are especially interested in Language and Communication or feel the need for more information at this time, please write to J. J. Le Tourneau, Hampshire College, Amherst, Massachusetts 01002.)

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