Quantitative Reasoning

Objectives

The quantitative reasoning requirement has been established to develop students' abilities to collect, summarize, and analyze numerical data; to make abstract concepts operational; and to think critically about the accuracy and soundness of conclusions based on data or on mathematical models. Quantitative reasoning courses usually embed methodological training in their subject matter. These courses vary widely in the skills that are emphasized, but they usually include one or more of the following:

A. Learning to read, construct, interpret, and evaluate tables, graphs, and charts.
B. Developing quantitative measures of physical, behavioral, or social phenomena.
C. Using mathematical models to express causal relationships and to explore the implications of changed assumptions or proposed solutions to problems in the physical or social world.
D. Collecting and organizing numerical data from archives, surveys, lab experiments, or other sources.
E. Testing hypotheses, using experimental or statistical controls.
F. Assessing the limitations of research, such as the reliability and validity of measures, adequacy of experimental design, sample size and quality, and alternative hypotheses and interpretations.

Each Brandeis undergraduate is required to take one course from the approved list of quantitative reasoning courses. This list may change, so students should consult the most recent list of approved courses in the Course Schedule to assure that they will receive requirement credit. (Naturally, students will not be denied credit retroactively if a course taken to fulfill the requirement is later dropped from the list.)

Courses with an asterisk (*) satisfy the quantitative reasoning requirement only when they are taken with the corresponding lab.

Courses of Instruction

ANTH 110a
Human Evolution

BCHM 100a
Introductory Biochemistry

BIOL 22a
Genetics and Molecular Biology

CHEM 11a
General Chemistry

CHEM 11b
General Chemistry

CHEM 15a
Honors General Chemistry: Principles of Material Evolution

CHEM 15b
Honors General Chemistry: Principles of Material Evolution

CHEM 150b
Special Topics in Chemistry

CHSC 5a
The Magnitude of Things and How on Earth They Matter

CHSC 6a
Forensic Science: Col. Mustard, Candlestick, Billiard Room

CHSC 8b
Chemistry and Art

COSI 21a
Data Structures and the Fundamentals of Computing

COSI 21b
Structure and Interpretation of Computer Programs

COSI 22a*
Fundamentals of Programming

COSI 22b*
Programming Paradigms

ECON 2a
Introduction to Economics

ECON 83a
Statistics for Economic Analysis

ECON 135a
Industrial Organization

ECON 184b
Econometrics

HIST 127b
Household and Family in Late Medieval and Early Modern Europe (1300-1800)

HSSP 100b
Introduction to Epidemiology, Biostatistics and Population Health

LGLS 138b
Science on Trial

MATH 8a
Introduction to Probability and Statistics

MATH 36a
Probability

MATH 36b
Mathematical Statistics

NEJS 165a
Analyzing the American Jewish Community

PHSC 2b
Introductory Astronomy

PHSC 4a
Science and Development

PHSC 7b
Technology and the Management of Public Risk

PHSC 9b
Introduction to Physics

PHYS 10a
Physics for the Life Sciences I

PHYS 10b
Physics for the Life Sciences II

PHYS 11a
Basic Physics I

PHYS 11b
Basic Physics II
## University Seminars in Humanistic Inquiries

### Objectives

The University Seminars in Humanistic Inquiries (USEM) are special courses specifically designed for first-year students and intended as a foundation for their studies at Brandeis. The primary objective is to offer a small seminar environment where students, under the close guidance of faculty, can engage major texts from ancient times to the present. The topics and texts of the seminars are extremely broad-ranging and come from every school of the University; such diversity allows students and faculty to focus on subjects in which they have a particular interest. The seminars are also quite consciously interdisciplinary: although taught by faculty from regular disciplinary boundaries and to address important problems from a much broader perspective. That approach is indeed integral to the mission of humanistic inquiry, which seeks to address fundamental and enduring questions of human existence.

### Courses of Instruction

<table>
<thead>
<tr>
<th>USEM 1b Jewish Literatures in Eastern Europe</th>
<th>USEM 2b Body Matters</th>
<th>USEM 3a Slavery, Religion, and Women</th>
<th>USEM 4a Literacy and Development</th>
<th>USEM 5b Conceptions of the Good Life</th>
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<td>The emergence of a modern literary consciousness was one of the results of the breakup of traditional Jewish society. Examines some of the leading Jewish writers in Eastern Europe who wrote in Hebrew, Yiddish, Polish, or Russian. Mr. Polonsky (Near Eastern and Judaic Studies)</td>
<td>When Madonna asks, “Do you know what it feels like for a girl in the world?” she appeals to the notion that the male body represents the standard human form and experience. But does it? Students examine how the image of the female body in Western literature, art, film, and music has been used in a variety of situations to express a number of ideas, from deference to difference. Ms. Harder (Romance and Comparative Literature)</td>
<td>Slavery is the most extreme form of power that one human being can exercise over another. Religion aims to express humanity’s highest ethical aspirations. How, then, does religion support slavery? Are enslaved women treated differently than enslaved men? Do slave-holding women exercise their power differently than slave-holding men? To answer these questions, female slave narratives, pro-slavery biblical interpretation, American slave religion, and biblical, early Christian, and early Rabbinic statues and teachings are examined. Ms. Brooten (Near Eastern and Judaic Studies)</td>
<td>Studies various definitions and forms of literacy across cultures and eras as depicted in literature and social science texts. Students’ personal literacy stories are part of the curriculum. Requires 10 hours of volunteer service to a literacy program. Ms. Hale (French Language and Literature)</td>
<td>Explores competing conceptions of the “good life” and of moral right and how these conceptions vary within different cultural periods in history; also explores standards for what is good and for justifying claims that one way of life is better than another. Included are conceptions of the “good life” as pleasure (Epicurus), as virtuous activity (Aristotle), as renunciation, as reason (Kant), as utilitarianism (J.S. Mill), as self-assertion (Nietzsche), as faith (Kierkegaard), as aesthetics, and as spirituality. Ms. Hayim (Sociology)</td>
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The seminars are also skill-oriented. At one level, they seek to develop writing and analytical skills, seminar discussions, under faculty guidance, will help students to formulate key questions and to construct a critical analysis of the author’s assumptions, evidence, and argumentation.

University Seminars that are designated as “USEM-W” (e.g. USEM 90a sec. 1W] may be used to satisfy Option I of the first year writing requirement. These courses provide an additional hour of writing instruction per week and periodic individual tutorials under the guidance of a trained writing instructor. This targeted writing instruction should appeal particularly to students who wish to sharpen the writing skills required for academic work at the University, as well as for their later professional careers.
Studies

Mr. Abusch (Near Eastern and Judaic Studies)

Mortality and immortality, the difference between men and women, notions of gender and sexualities, and the social construction of decent and indecent behavior in Western culture.

Ms. Kelikian (History)

USEM 7a The Twentieth-Century Political Novel

Novelists have illuminated the ethical complexity and the ideological pressures entangled in political choices. Such texts can also be read as showing how political acts are heightened versions of the tragic limitations embedded in social experience.

Mr. Whitfield (American Studies)

USEM 7b The Concept of Time

Explores the changing concept of time from human and scientific points of view. Topics include ancient and medieval view of time, the Newtonian concept of universal time, and changes brought by relativity and quantum mechanics.

Mr. Bensinger or Mr. Blocker (Physics)

USEM 8a Textual Transformations

Examines how literature responds, internally and externally, to the challenge that change poses for the individual and society. Metamorphosis, the transformation of one object into another, is the primary focus within each text studied, but considerable time is also spent in determining how each text relates to the others with which it shares characters, plots, and themes. As multiple versions of a few particular stories are read, only students with a tolerance for repetition and an appreciation for variation should consider enrolling.

Ms. Walker (Classical Studies)

USEM 9a The Wandering Hero in Ancient Literature

Focuses on the Epic of Gilgamesh. Examines such issues as friendship, social responsibility, the meaning of life, mortality and immortality, the difference between the human and divine. Texts are read from Mesopotamia, Greece, Israel, and Canaan, which intersect literally and thematically with the epic, such as The Odyssey, Genesis, Aqhat, Ecclesiastes, and selected Sumerian narratives.

Mr. Abusch (Near Eastern and Judaic Studies)

USEM 9b Going to Hell: Journeys to the Underground

Why does the theme of a living being, either divine or human, going to visit the world of the dead occur in several cultures? This seminar explores connections to the meaning of life and justice within the specific cultures engendering each text.

Ms. Walker (Classical Studies)

USEM 10a The Popular Book

Explores the social significance of popular books. Examines such books’ historical development, the contemporary industries that produce and market them, and the people who read them. Students discuss how popular books relate to issues such as power, identity, and individualism.

Ms. Miller (Sociology)

USEM 10b Reading, Writing, and Arithmetic

Studies the role of mathematics and mathematicians through works of biography, philosophy, popular science, drama, and fiction.

Mr. Diamond (Mathematics)

USEM 11a Risk: What is it and How Do We Deal with It?

Risk has been an important feature of our lives for thousands of years. However, analyzing risk in a formal way has been an exercise of the last few hundred years— with most of that limited to the last 50. What is “risk” and how has our understanding changed over the centuries? How are the decisions of individuals, groups, and societies altered in risky circumstances? Elementary probability, statistics and decision models, puzzles, and real world applications are examined.

Mr. Dolbear (Economics)

USEM 11b Exchange

Explores the concept of “exchange”, and the different types of exchange encountered in daily life and throughout history—Adam and Eve, Native Americans and early settlers, knowledge, drugs, global exchange, bribery, the stock exchange, free speech, Napster, pollution, trading, and more.

Mr. Erbil (Economics)

USEM 12a An American Tragedy: The Wartime Internment of Japanese Americans

After Pearl Harbor the U.S. government sent more than 110,000 ethnic Japanese to concentration camps on American soil. How can we understand this unconstitutional violation of an innocent people’s rights? What actions are appropriate in a national security crisis? The story of the internment and the problems it raises for us today is explored through novels, films, memoirs, poetry, and visual art.

Ms. Harth (Roman and Comparative Literature)

USEM 12b An American Tragedy: The Wartime Internment of Japanese Americans

Examine the relations between whites and African Americans from the earliest colonial settlements to late 20th-century, post-industrial society. Special attention is paid to the encounters between black and white people in the workplace. Texts include autobiographies, novels, and essays, as well as legal statutes, labor contracts, court cases, and government reports.

Ms. Jones (History)

USEM 13a America in Black and White: A History of Race in the Workplace

Using North America after Columbus as a case study, examines the problems of understanding and representing people across cultural frontiers. Focuses on the various ways authors have explored and defined boundaries of race, ethnicity, and gender.

Mr. Kamensky (History)

USEM 13b America in Black and White: A History of Race in the Workplace

Investigation

Examination of scientific method and the scientific method in practice. The role of science in society, the scientific method, and scientific research. Examples of classic and romantic scientists. Illustrated with examples of great discoveries. Reading: Selected writing of scientists.

Mr. Lowenstein (Biochemistry)
being”?

relationship between bio-logy and onto-

to eat other human beings. Does this mean

Ms. Arrom (History)

have been constructed by and for people of
course examines how group identity/ies
recent immigrants, others have lived here
different countries, socioeconomic
Latinos are now the largest minority in the
relationship with God, the world, and
death is studied in their

USEM 18a Understanding Evil and Human
Destiny

Designed to introduce students to some of the
Western classics that deal with the
impact of evil on human destiny. Suffering,
justice, and death is studied in their
relationship with God, the world, and
history.

Mr. Kimelman (Near Eastern and Judaic
Studies)

USEM 18b Latinos in the United States:
Constructing Transnational Identities

Latinos are now the largest minority in the
United States. They come from many
different countries, socioeconomic
backgrounds, and ethnic groups. Some are
recent immigrants, others have lived here
for generations. Does it make sense to lump
them together into one category? Analyzing
texts such as historical documents,
memos, novels, poems, and films, this
course examines how group identity/ies
have been constructed by and for people of
Latin American descent over the past
century.

Ms. Arrom (History)

USEM 19a The Hungry Soul: Eating and the
Perfection of Our Nature

Eating is a necessity, yet we are forbidden
to eat other human beings. Does this mean
biology must admit something
“immaterial,” like a soul? What is the
relationship between bio-logy and ontol-
ogy, (Aristotle) the study of “being-qua-
being”?

Mr. Yourgrau (Philosophy)

USEM 19b Political Truths and Modern
Fictions

Explores a series of modern works of fiction
with an eye to the particular insights that
they provide into the nature of various
political phenomena, e.g., class conflict,
vigilance, and bureaucracy, and to what it is
about fiction in general that allows us to
think about politics, character and social
relationships together. Authors include
Conrad, Kafka, Baldwin, Camus, Saramago,
Kundera, Voinovich, Lampedusa, al-Shaykh,
and Lessing.

Ms. Smiley [Philosophy]

USEM 20a From Colonies to Independent
State-Decolonization in Comparative
Perspective

The middle of the 20th century was a time
of political, social, and economic upheaval
globally. Colonies of European powers
embarked on the path to independence,
struggling to define new identities.
Struggles over power, identity, race, and
class characterize the decolonization
experience of developing countries. The
decolonization experience using (primarily)
literature and political writings is
examined. The experience of Africa, Asia,
and the Caribbean are covered. Texts
include Frantz Fanon, The Wretched of the
Earth and A Dying Colonialism; Jean-Paul
Sartre, Colonialism and Neocolonialism;
speeches of Aminur Cabral, Edward Said,
Orientalism; George Orwell, Burmese Days;
Joseph Conrad, Heart of Darkness; VS
Naipaul, A Bend in the River; Adam
Hochschild, King Leopold’s Ghost: A Story
of Greed, Terror and Heroism in Colonial
Africa. Where appropriate the course uses
films (Indochine, The Battle of Algiers, etc.)
to provide a different perspective on
decolonization.

Ms. Thorne [Politics]

USEM 20b Art and the Asian City: Tokyo,
Shanghai, Hong Kong

Studied the evolution of the urban
environment in three modern Asian cities
and its impact on the visual arts. Examines
the city as the financial and cultural hub of
the nation, as well as the site of clashing
cultural identities, personal anxieties, and
civic crises.

Ms. Wong [Fine Arts]

USEM 21b Language and Identity

Explores how who we are is reflected in
the language we use and examines the ways in
which language influences our perception of
ourselves. Topics include the role of
metaphor in the expression of identity,
issues related to bilingualism, cultural
identity, gender, and language.

Ms. Chevalier (German, Russian, and East
Asian Languages and Literature)

USEM 22a Right and Left in Europe from
1900 to the Present

Reviews the main political families of 20th-
century Europe and their 19th-century
ancestries. Using original texts, novels, and
documentaries to examine the ideas and
followers of each movement, it introduces
the participants to analytical tools as well
as to modern history.

Mr. Jankowski (History)

USEM 23a Opera as Drama

Explores the literary, theatrical, and
musical dimensions of opera. The course
may be organized in one of several ways,
e.g., by historical period, by thematic
considerations, by composer or group of
composers, by librettist or librettists, or by
literary sources.

Messrs. Keiler or McGrae (Music)

USEM 24a Classical Myths Told and Retold

Surveys several major literary works of the
ancient Greeks and Romans in order to
study their mythological content, variant
myths, and the influence of mythology on
Greek art, later literature, and modern film.

Ms. Koloski-Ostrow (Classical Studies)

USEM 25a Reading Between the Lines:
Freedom of Conscience and Persecution

Traces different cases of intellectual
expression exercised under illiberal
censorship conditions and persecutions.
Organized chronologically, beginning with
Plato’s account of his teacher’s execution
under Athenian democracy, and closing
with 20th-century reassessments of the
freedoms of conscience and expression.

Mr. Sheppard (Near Eastern and Judaic
Studies)

USEM 26a Property in the Information Age

Examines the history and future of such
capital concepts as copyrights, copyleft,
patents, licensing, public domain, fair-use,
interfaces, caching, framing, work-for-hire,
joint tenancy, digital cash, software
freedom, upgrades, wares, electronic read-
once books and DIVX movies, in a
collective effort to understand what,
exactly, is the information age doing to the
core human idea of property.

Mr. Pollack (Computer Science)

USEM 26b Everyday Activity

Examines various frameworks for describing
everyday activity. “Everyday activity”
refers to such common behaviors as riding a
subway, attending a movie, buying
groceries, playing a CD, doing the laundry,
and carrying on a conversation. Focuses on
models of skill acquisition and problem-
solving, the nature of activity and planning,
and the role of culture in everyday activity.

Mr. Alterman (Computer Science)
University Seminars in Humanistic Inquiries

USEM 27b Coming into One's Own:
Sources of the Self in Modern Literature
[uswi]
With the collapse of the old imagery of hierarchy and harmony, individuals who have been cut loose from their social moorings require new images and symbols in order to orient themselves in the world. Explores problems of acting in a world where the outward signs denoting inner life are no longer believed to be adequate and where definite limits and fixed principles are missing.
Ms. Freeze (Near Eastern and Judaic Studies)

USEM 28a Let's Play a Game
[uswi]
Mathematically and literarily, explores the dichotomy between games like chess, go, backgammon, or tic-tac-toe, where all players know everything, and ones like poker, rock-paper-scissors, or nuclear proliferation, where players must make decisions lacking some information.
Mr. Kleber (Mathematics)

USEM 28b The Jewish Family: Past and Present
[uswi]
Examines the transformation of the Jewish family in four different settings (Europe, America, North Africa, and the Middle East) from medieval to modern times, focusing primarily on the internal dynamics of family life and interaction with majority cultures.
Ms. Freeze (Near Eastern and Judaic Studies)

USEM 29a From Jewish Shtetl to the New World
[uswi]
Examines the transformation of Jewish life from its roots in Eastern Europe to its transplantation in America. Focuses on social and religious change, culture, family life, politics, and women's experiences.
Ms. Freeze (Near Eastern and Judaic Studies)

USEM 29b Russia, “Herstory”: Memory, Identity, and Culture
[uswi]
Explores the life stories of Russian women (especially Russian Orthodox and Jewish) through memoirs, diaries, novels, and films. Focuses on women’s family lives, religion, involvement in revolutionary movements and culture, their role in a new Soviet society, and post-Soviet realities.
Ms. Freeze (Near Eastern and Judaic Studies)

USEM 30b Development of Play, Art, and Creativity
[uswi]
Is there a relation between intrinsic motivation, play, art, and creativity? In this seminar, the possible relation is explored through writings from developmental psychology, theories of creativity, and the visual arts are used.
Mr. Watson (Psychology)

USEM 31a Views of Human Nature
[uswi]
What is human nature? Are we inherently good or inherently selfish? Do we come with built-in psychological tendencies, or are we free to shape ourselves? How do biology, context, and culture shape our behavior? Such questions are explored through philosophical, biological, psychological, and anthropological readings.
Ms. McIntosh (Anthropology)

USEM 31b Religion and Society in the Modern Middle East
[uswi]
Examines the relation between Islam and society in the Modern Middle East through reading and discussion of the writings of prominent Muslim thinkers and leaders. The focus is on Islam’s reaction to modernity and on some social, economic, and political issues facing Islamic societies in our times.
Msrs. Levy or Nakash (Near Eastern and Judaic Studies)

USEM 32b Crime and Punishment in History
[uswi]
Examines how America and other Western political communities have defined, represented, and punished crime. Discusses diverse texts—speeches, court cases, memoirs, novels, and films—to develop a critical historical perspective on such concepts as evil, responsibility, and justice.
Mr. Willrich (History)

USEM 33b Revisioning the Classics: Then and Now
[uswi]
Participants read works from the canon of Western civilization and then analyze how these works have been rewritten artistically and reinterpreted theoretically from a 20th-century perspective. It is hoped that, by listening to the dialogue that takes place across the centuries between major texts, students come to a deeper understanding of some of the political, social, and philosophical ideas that have shaped contemporary thought.
Ms. Ratner (Romance and Comparative Literature)

USEM 34a A Haunted America: American Dreamers as Wanderers, Visionaries, Isolates
[uswi]
In Langston Hughes’ poem, Dream Deferred, the question is posed “What happens to a dream deferred?” Examines what happens to the 20th-century dreamer lured, often obsessed, and frequently tormented by the promise of the mythic American dream. The class will map an America haunted by various definitions of the dream, its displacement, its erosions, and its reinventions.
Ms. Whelan (English and American Literature)

USEM 34b Agrarian Ideal and Rural Reality in America
[uswi]
Once, the American farmer embodied economic and political independence. A pastoral impulse persists among urban people. For the last two centuries, however, economic competition and suburban sprawl have undercut country life. Are healthy family farms and attractive rural landscapes mythical, doomed, or an enduring American dream?
Mr. Donahue (American Studies)

USEM 35b Cultural Conflicts Generated by Scientific Milestones
[uswi]
Scientific milestones have generated major controversies throughout history. Delves into conflicts generated by Galileo’s dethroning of the earth, Darwinian evolution, the development of nuclear bomb power and the potential uses of the genome project and animal cloning.
Ms. White (Biology)

USEM 36b Drama and Social Issues
[uswi]
What are the values and purposes of drama? What drama can tell us about violence and sexuality, about political relationships, and about ourselves is explored, through plays by writers from Sophocles to Calderon to Dorfman.
Ms. Fox (Romance and Comparative Literature)

USEM 37a Myth and Prejudice: Social Attitudes about Language
[uswi]
As Henry Higgins and Eliza Doolittle knew well, the minute we speak, we are judged and categorized as to our social class, competence, and even intelligence. The sources of some prevalent beliefs about language are examined and whether the value judgments that many of us make on the basis of those beliefs stem from valid assumptions about language or from destructive myths that perpetuate prejudice is questioned.
Ms. Maling (Psychology)
An introduction to Fractals and Chaos in a non-mathematical manner as a new language to describe and emulate the complexities of nature. The older traditional language of microscopic reductionism is used as a backdrop to illustrate the revolutionary nature of the new language.

Mr. Canter (Physics)
USteam 50b Humor

Often thought of as light reading, humor can also be great literature. Humorous works by writers such as Aristophanes, Shakespeare, Voltaire, and Mark Twain, among others, are read and discussed. Mr. Gessel [Mathematics]

USteam 51a Faces: Understanding the Influence of Appearance on Social Perception and Social Development

An interdisciplinary examination of the ubiquity, origins, and consequences of using facial appearance to judge psychological attributes. Attention is given to associations between facial appearance and character in literature and the arts, and to biological, social, and psychological analyses of these associations. Ms. Zebrowitz [Psychology]

USteam 51b Assumed Identities

Explores narratives that present protagonists engaged in resolving personal crises through acts of disguise, dissimulation, and discovery of multiple self-identities. Readings from Chretien de Troyes, Dante, Cervantes, Shakespeare, Silone, and Conrad. Mr. Lansing [Romance and Comparative Literature]

USteam 52a Race and Representation

As readers of literature and as viewers of film, do we have shared assumptions about the racial and ethnic identities encoded in the texts we receive? How do we learn to “read” categories such as “white,” “ethic,” or “mixed,” and how is this related to our status as citizens? Narrative and cinematic strategies in 19th- and 20th-century texts are reviewed, paying close attention to issues of assimilation and marginality, racialized constructions of gender, and the politics of interpretation. Ms. Smith [American and African-American Studies/English and American Literature]

USteam 53a Between Conflict and Cooperation: Muslims, Christians, and Jews in Medieval Spain

An examination of social and intellectual interaction among the three religious communities of medieval Spain focusing on literature, philosophy, and religion (including mysticism). Will study how the interaction of the three faiths helped produce a unique culture. Mr. Decter [Near Eastern and Judaic Studies]

USteam 53b Common Questions, Different Answers: The Bible and Near Eastern Literature

Archaeological and textual finds of the last one-and-a-half centuries have radically changed how we read the Bible. We now have thousands of previously unknown texts from all over the Near East that provide a new framework for interpretation. Near Eastern literature asks many of the same questions as the Bible. How are the answers the texts give similar to or different from one another? Mr. Wright [Near Eastern and Judaic Studies]

USteam 54a Ideas of Equality, Systems of Inequality

Examines classic and contemporary accounts of equality and inequality in Western and non-Western societies. Influential philosophical texts on equality and inequality are read first, and the these speculative accounts are confronted with empirical evidence from the ancient Near East and from so-called “egalitarian” societies. The origins of an ideology of individual equality in the Western tradition are located and ways that obvious evidence of social inequality is rationalized in contemporary America are examined. Mr. Parmentier [Anthropology]

USteam 55a Tales of Travel

Looks at the way travel creates meaning through writing, images, and film. Examines tales of fictional and non-fictional travelers in order to ponder themes of empire, tourism, national identity, natural history, and scientific imperialism. Ms. Davila [Romance and Comparative Literature]

USteam 55b From Vitruvius to Venturi: Study of Architecture through Texts, Theories, and Treatises

Through texts as varied as the pattern books of Palladio, the memoir House by Tracy Kidder, the film and novel The Fountainhead, the life of Frank Lloyd Wright, the original notes of architects and the reviews by critics, explores architecture from the ancient to the modern as a metaphor for other humanistic disciplines. Mr. Bernstein [Fine Arts]

USteam 56b animal Kingdoms

The term “animal kingdom” suggests an analogy between the human and animal worlds. Explores the meaning and significance of the analogy—artistically and ideologically—in a wide variety of cultural activities and artifacts with a focus on “high” and “popular” cultures. Mr. Morrison [English and American Literature]

USteam 57a Freedom and Repression

Looks at various models of freedom, as well as at how states engage in repression to preserve systems of privilege. Specific cases examine democracy in the United States, colonialism in Africa, and totalititarianism in Nazi Germany and Stalinist Russia. Mr. Cunningham [Sociology]

USteam 58b Why Work?

Mankind has always “worked,” but the tasks and their material and social significance have evolved, and this evolution is accelerating. Considers how societies in different times and places view work, how different societies parcel out the tasks that individuals perform, how technology and specialization interact, and how work is related to experience beyond the workplace. Why do members of affluent societies work as long and as hard as we do? Ms. Carter [Economics]

USteam 59a Majorities and Minorities

Examines how political philosophers and practitioners from ancient Greece to the contemporary era have dealt with the problem of reconciling the rights of individuals, majority groups, and minorities in democratic political systems. Mr. Burg [Politics]

USteam 60a Art and the Bible

From prohibition to inspiration, the Bible has had a profound influence on the development of art. Explores the rich and complex relationship between sacred text and image in Jewish, Christian, and Islamic art from antiquity to the present. Mr. McClendon [Fine Arts]
USEM 61a Illness Narratives
Mr. Berger (Philosophy)
How do people make sense of illness and caring for sick people through stories? Beginning with a historical overview of Western medicine, analyzes illness narratives as a coping device and a means to restore one’s biography. The different viewpoints of health care providers and patients are linked to the broader structural characteristics of the modern health care system.
Mr. Timmermans (Sociology)

USEM 61b Stigmatized Identities
Mr. Powelstock (German, Russian, and East Asian Languages and Literature)
Society creates stigmas that can stain one’s reputation. Examines sources and forms of stigmatization and managing stigmatized identities, focusing on deviance, disabilities, and the Hollywood “blacklist.” Investigates stigma through text, film, and firsthand interviews.

USEM 62a Children’s Literature and the Construction of Childhood
Ms. Allara (Fine Arts)
Whether children’s literature has sought to civilize or to subvert, to moralize or to enchant, it has formed a bedrock for the adult sensibility. Childhood reading reflects the unresolved complexity of the experience of childhood itself as well as larger cultural shifts in values and beliefs.
Ms. Miller (German, Russian, and East Asian Languages and Literature)

USEM 62b How Science is Really Done
Mr. Flesch (English and American Literature)
Science is seen by many as the “culture of our times,” yet popular misconceptions about science abound. Examines a variety of discoveries to learn how scientists actually go about their work and whether there exists, in fact, a “scientific method.” Ways in which science as a creative activity is linked to pursuits in the humanities are explored. A genuine interest in science is required.
Ms. Cohen (Biology)

USEM 63a Art and Propaganda: The Persuasive Image
Ms. Hansen (Sociology)
An investigation of the ways in which visual images in all media have been used to persuade the public to accept certain ideological views. What are the various forms propaganda can take, and what are the methods it uses?
Ms. Allara (Fine Arts)

USEM 63b The Name of This Course Has Two Mistakes!
Mr. Levin (Politics)
Figured it out? You will by the end if the course! Covers in outline form a mathematical proof of certain limitations of what we can express in precise formal languages. For students interested in mathematical and logical problems.
Mr. Berger (Philosophy)

USEM 64b Madness in Western Civilization
Mr. Freeze (History)
Explores the meaning of “madness” in Western civilization—how its definition changed over time, how societies have sought to address the problems it raises, and how it has been reflected in literature, art, and law.

USEM 65a Critique of Erotic Reason
Mr. Flesch (English and American Literature)
Perhaps the most prominent literary theme of the last two centuries is love, especially of the romantic and erotic variety and marriage. It has amounted to a secular metaphysics of the post-religious age. But is the novel of love still possible in our demystified world? Does it belong to an era and a way of life that has receded into the past? Explores a few classics of this genre together with some philosophical essays from Plato to the present. Works by Jane Austen, Goethe, Stendhal, Flaubert, Musil, Schnitzler, Kundera, Jeanette Winterson, and others.

USEM 66b History of Utopia
Mr. Dowden (German, Russian, and East Asian Languages and Literature)
What might a better world look like? How do people in different cultures imagine the ideal life? Students read the original Utopia (by Englishman Thomas More), together with several 20th-century utopian novels, and an American work of their choice.
Ms. Irri (English and American Literature)

USEM 67a Politics as Seen through Fiction
Mr. Levin (Politics)
How modern fiction helps us understand the dilemmas of politics, the tensions between ideas and actions, social change, leadership, and followers, societies in transition and decay, revolution, law, bureaucracy, and ethnicity. Koestler, Twain, Sartre, Oz, Solzhenitsyn, Kafka, and Greene are read. Format is a highly interactive seminar with several short writing assignments.

USEM 67b The Art of Living
Mr. Powelstock (German, Russian, and East Asian Languages and Literature)
How ought I to live my life? This seminar approaches this question by examining still powerful ancient religious, philosophical, and literary models, as well as the profound challenges posed to them by modern thought and art.

USEM 68a The Art of Living
Mr. Powelstock (German, Russian, and East Asian Languages and Literature)
Through the biographies of women intellectuals, controversial political activists, and “ordinary” women, this seminar investigates the relationship between women’s everyday lives, history, and the sex/gender system.
Ms. Hansen (Sociology)

USEM 69a Human Movement and the Sense of Self
Mr. Freeze (History)
This seminar explores what human movement is and how it reflects and governs who we are. If you couldn’t move, how would you experience yourself in the world, and how would other experience you? What can we learn from problems encountered in space flight about our limits of adaptability? What can we learn about volition from robotic prostheses directly interfaced to the human brain? Questions like these are analyzed through reading of classical and current texts in neuroscience, psychology, and philosophy, as well as through practical exercises and experimental demonstrations.
Mr. DiZio (Psychology)

USEM 71b Right and Society
Mr. Levin (Politics)
Explores theories of the best society, the nature of public and private obligation, the authority of law, and the nature of justice. Focuses on a handful of key texts from the classical and modern periods and examines their different visions of the nature of public duty and public life and their different theories of the role of political life in human destiny.
Mr. Burt (English and American Literature)

USEM 73a Thinking about Infinity
Mr. Flesch (English and American Literature)
Explores the attempts of the finite human mind to think about infinity. Readings in mathematics, history of science, philosophy, literature, and art, including Euclid, Plato, Cantor, Poincare, Einstein, Pascal, Kant, Hegel, Wordsworth, Shelley, Joyce, Beckett, Leonardo, Michaelangelo, and Raphael.
Mr. Flesch (English and American Literature)

USEM 74a Imagining Governance: The Federation and Other Science Fictions
Mr. Levin (Politics)
Science fiction is often described as a way of thinking that helps people to reimagine how society is organized. It supposedly allows its best minds to escape limits set by social convention (“fiction”) while holding out the possibility that, because of its commitment to “science,” imagined society could become a reality.
Ms. Chu (English and American Literature)

USEM 74b Women’s Biography and Society
Mr. Levin (Politics)
Through the biographies of women intellectuals, controversial political activists, and “ordinary” women, this seminar investigates the relationship between women’s everyday lives, history, and the sex/gender system.
Ms. Hansen (Sociology)
USEM 75a United States and Africa
[ uswi ]
The first Africans arrived in what is now the United States before the Pilgrims landed in Massachusetts. This seminar analyzes how cultures and people interact in the creation of race and nation. Africa has influenced American economics, speech, and music (from spirituals to hip-hop). The United States itself has had “Back to Africa Movements,” and elements of the American Civil Rights struggle were used by various African leaders. Some see Africa as an idyllic “Mother-land” free from the evils of the West. Others see it as the home of AIDS, famine, and civil war. However, Africa is not a country, but a continent. How do we comprehend its diversity? How do Africans see us? A range of materials is used, including Olaudah Equiano’s Narrative, Manthia Diawara’s In Search of Africa, Richard Wright’s Black Power, Marcus Garvey’s Philosophy and Opinions and Keith Richburg’s Out of America and Steven Spielberg’s film Amistad.
Mr. Sundiata (African and Afro-American Studies/History)

USEM 75b Nature, Art, and Illusion
[ usem ]
How the physical stimulus, its representation on the eye, and our phenomenal image of it are related, has challenged philosophers, scientists, and artists. Explores this problem historically and in laboratory experiments examining visual illusions in nature and art.
Mr. Morant (Psychology)

USEM 76a Law and the Search for Authority
[ usem ]
Examines how societies seek to justify their basic legal rules. Readings drawn from political, historical, and philosophical works that search for ultimate legal principles in written constitutions, totalitarian authority, custom and tradition, or the fallible capacities of human reason.
Mr. Gaskins (American Studies)

USEM 77a Where the Idea of the Computer Came From
[ usem ]
Where did the idea of the computer come from? Examines its cultural, non-engineering roots in philosophy, logic, and mathematics: algorithms, undecidability, games, mechanical intelligence and the mind, and precursor ideas of desktop publishing and Internet technology. Readings include historical documents as well as fiction. A willingness to think abstractly and mathematically is an informal prerequisite.
Mr. Mairson (Computer Science)

USEM 78a Twentieth-Century Global Literature
[ usem ]
Introduces students to novels, plays, short stories, and poems from around the world. The major objective is to stimulate the students’ desire to learn about issues of identity, culture, social differences, alienation, and otherness through a comparative approach to global literature. Mr. Sanchez (Romance and Comparative Literature)

USEM 78b Jews and Gender
[ usem ]
A look at the construction of Jewish sexuality in literature, films, illustrations, caricatures, and posters in the last 150 years as a response to modern theories of race, ethnicity, and nationality.
Mr. Peleg (Near Eastern and Judaic Studies)

USEM 79a Environment as Modern Myth: Books, Movies, and Marketplace
[ usem ]
What role does the natural environment play in our vision of the world? Is it a warm and welcoming womb, a savage, fearsome force; a worldly embodiment of a higher power; a precious resource needing protection from man’s destruction; a convenient source of images for product marketing? Explores these divergent images as portrayed in fiction and non-fiction, film, and popular culture, and analyzes the relationship between these concepts and our treatment of the natural world.
Ms. Goldin (American Studies/Legal Studies)

USEM 80a Alienation, Isolation, and Difference in Cultural Studies
[ usem ]
Discusses how we characterize the many meanings of the term “alien.” Whether it be as a monster from a science fiction movie, or an immigrant to America, or a new college student, our ideas about the strange and foreign are also a reflection of our own self-identity.
Ms. Dave (American Studies)

USEM 80b Memory and Democratic Prospects in State-Damaged Societies
[ usem ]
Examines the prospects for democratic governance in state-damaged societies and how the social memory of catastrophe (war, famine, repression, and genocide) enables or hinders the process of democratic construction or reconstruction. Explores the applicability of the concept of psychic trauma to state-damaged societies and the formation of collective memory.
Mr. Thaxton (Politics)

USEM 81a The Subversiveness of Asking “Why?”
[ usem ]
It is common to wonder why people behave as they do. Less common is consideration of the implications of even supposing that the question might be answerable. Considers causal accounts of human actions, and consequences for notions of responsibility and punishment.
Ms. Herzfeld (Chemistry)

USEM 82b War in World History
[ usem ]
How has war affected the course of world history? How different does war look across the ages? How has technological innovation influenced the conduct of war and the evolution of societies? These are the broad questions are addressed.
Mr. Art (Politics)

USEM 83a Critical Thinking
[ usem ]
Learn how to identify, construct, analyze, and evaluate arguments, as well as the common traps and false assumptions that lead to shoddy thinking. Primary objectives are to develop the ability to distinguish good arguments from bad arguments and the ability to reason well.
Mr. Petsko (Biochemistry/Chemistry)

USEM 83b Science in Art
[ usem ]
How do we know whether that painting or that sculpture is “genuine?” Usually it’s because we take the word of the museum or of the art dealer. But many works of art are discredited every day as new methods are applied to determine the “fine structure” of a particular artifact. Art objects are looked at critically, from the point of view of the conservator, who has to determine a piece’s value before it is bought or is displayed.
Ms. Ringe (Chemistry/Biochemistry)

USEM 84a Philosopher’s Choice
[ usem ]
The students determine the issues they want to discuss, which are selected from the readings, but the instructor chooses the readings. Everyone in the class will bring only their own experience, instead of any expertise, to the material in the readings. Readings will include works by Ryszard Kapuscinski, Philip Roth, Ckournos, Ben Rogers, Jeffrey Toobin, Bob Woodward, Thomas Mann, Alan Dershowitz, Saul Bellow, John Updike, Homer, and Virginia Woolf.
Mr. Greenberg (Philosophy)

USEM 84b The American Immigrant Experience
[ uswi ]
The story of America, from colonial days to our day, is the story of immigration. Explores that story using letters, memoirs, fiction, and film. Through these sources, selected immigrants are accompanied as they leave home, journey to a new land, secure a job, interact with a new culture, and clash with their Americanized children.
Mr. Sarna (Near Eastern and Judaic Studies)
USEM 85b Breaking the Rules: Deviance and Non-Conformity in Pre-Modern Europe
[uswi]
Explores the ways in which “deviant” behavior was defined and punished by some, but also justified and even celebrated by others in pre-modern Europe. Topics include vagrancy, popular uprisings, witchcraft, religious heresy, and the status of women.
Mr. Sreenivasan [History]

USEM 86b The Art of Seeing Things Invisible
[usem]
Our world is largely a creation of vision’s capacities. To learn what vision could tell us about ourselves and about other life forms, a variety of perspectives on vision from psychology, art, biology, speculative fiction, comparative zoology, philosophy, and computer science is explored.
Mr. Sekuler [Psychology]

USEM 87a Be a Mensch! Write!
[usem]
Creativity, memory, emancipation: from fairy tales passed on orally to globally communicated cybertales, humans all over the world create, interpret, and critique stories to leave their indelible mark. Investigates the meaning of reading and writing in Homer’s Odyssey, Virginia Woolf’s A Room of One’s Own, Bernhard Schlink’s The Reader, and others.
Ms. vonMering [German, Russian, and East Asian Languages and Literature]

USEM 87b Time
[uswi]
The approach of a new millennium often causes us to reflect upon our understanding of “time.” Through readings of ancient and contemporary literary and non-literary texts, explores the ways in which humans develop, express, research, and project their concepts of “time.”
Ms. vonMering [German, Russian, and East Asian Languages and Literature]

USEM 88a Islands
[usem]
Islands are worlds unto themselves, capable of developing singular ecologies and singular “forms of life,” yet vulnerable to invasion and swift destruction. Studies the wealth and the fragility of islands, as mythical and as actual places.
Ms. Quinney [English and American Literature]

USEM 88b Free Will
[usem]
Explores the debates over free will and the limits of human choice that have pervaded literary, philosophical, and religious writing since ancient times. Readings include selections from the Hebrew Bible and the New Testament; Augustine, Luther, Calvin; Shakespeare; Milton; Locke; Edwards; Dostoevsky; Kafka; Beckett.
Ms. Targoff [English and American Literature]

USEM 89b College 101
[uswi]
This seminar studies one of the most important institutions in modern America: the university. Students examine the current organization and orientation of higher education in historical and sociological perspective, using non-fiction accounts, memoirs, and fiction about the college experience.
Mr. Engerman [History]
University Writing

The writing requirement is satisfied by completing one of the following options:

Option I: One University Seminar in Humanistic Inquiries Plus Writing (USEM+W) course taken in the first year, plus two writing-intensive courses. The USEM+W course has a fourth hour of instruction focusing on composition that is closely linked, thematically and stylistically, to the academic disciplines that define the context and content of the course.

Option II: One University Writing Seminar (UWS) taken in the first year, plus one writing-intensive course, in addition to a University Seminar in Humanistic Inquiries (also taken in the first year). The UWS is a full-credit course specifically dedicated to writing as a subject in its own right; it treats writing as a multifaceted art and gives students an opportunity to study and experiment with a broad range of writing styles.

All first-year students will thus complete either a USEM+W or a UWS course. Both courses place special emphasis on forms of argumentation. Other areas of attention include critical reading, essay structure, revising, research skills, and proper documentation.

Writing-intensive courses are upper-level courses that are offered in departments throughout the University. Normally taken in a student’s second or third year, these courses are based in a specific academic discipline and require frequent or regular attention to writing and instruction in the skills of academic writing.

The list of courses that satisfy the writing-intensive requirement changes each year. The following list should be considered preliminary, courses that satisfy the requirement in a particular semester are designated “wi” in the Schedule of Classes for that semester. When there is a conflict between this Bulletin and the Schedule of Classes regarding the designation of a course as writing intensive, then the information in the Schedule of Classes takes precedence. To find classes offered in a semester that are designated as “wi,” search for the attribute of “genr/wi.” Consult with the director of University writing if in doubt about whether a course satisfies the requirement in a specific semester.

Courses of Instruction

COMP 1a Composition
Prerequisite: Placement by the director of University writing. Successful completion of this course does NOT satisfy the first-year writing requirement.
A course in the fundamentals of writing, required as a prerequisite to the first-year writing requirement for selected students identified by the director of University writing. Several sections offered in the fall semester and one section in the spring semester.
Staff

UWS ##a and ##b University Writing Seminar
Four semester hour credits.
A course in college writing, with stress on writing sound, argumentative essays that demonstrate mechanical and stylistic expertise. This course satisfies Option II of the first-year writing requirement. Offered every semester.
Staff

Writing Intensive Courses

AAAS 79b Afro-American Literature of the Twentieth Century
AAAS 123a Third World Ideologies
AAAS 126b Political Economy of the Third World
AAAS 143a Economies of African Countries
AAAS 158a Theories of Development and Underdevelopment
AMST 100a Classic Texts in American Culture to 1900
ANTH 83a Anthropological Inquiry
ANTH 131b Latin America in Ethnographic Perspective
ANTH 144a The Anthropology of Gender
BIOL 17b Conservation Biology
BIOL 18a General Biology Laboratory
BIOL 160b Human Reproductive and Developmental Biology

CHIN 105a Advanced Conversation and Composition I
CHIN 105b Advanced Conversation and Composition II
CLAS 115b Topics in Greek and Roman History
CLAS 166a Medieval Literature: A Millennium of God, Sex, and Death
COML 165a Reading, Writing, and Teaching across Cultures
ECON 8b The Global Economy
ECS 100a European Cultural Studies Proseminar: Modernism
ECS 100b European Cultural Studies Proseminar: Making of European Modernity
ED 100b Exploring Teaching [Secondary]
ENG 19b The Autobiographical Imagination
ENG 109b Directed Writing: Short Fiction
ENG 119a Directed Writing: Fiction
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<td>Writing Workshop</td>
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<td>ENG 129b</td>
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<td>ENG 137a</td>
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<td>FREN 122b</td>
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<td>GER 105a</td>
<td>Learning Language through Literature-Learning Literature through Language</td>
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<td>HBRW 143a</td>
<td>Advanced Survey of Hebrew and Israeli Literature I</td>
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