**DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES**

**FIRST-YEAR WRITING COURSES**

**EN 1090W Introduction to College Writing**

This intensive course in reading comprehension and composition skills is for native English speakers who are inadequately prepared for college composition. The course emphasizes competency in standard written English and fluency in writing. Credits: 3. Prerequisites: EN Placement exam. Co-requisites: None. Notes: None.

**EN 1080W Introduction to College Writing for ESL Students**

This intensive course in reading comprehension and composition skills is for non-native speakers of English who are inadequately prepared for college composition. The course emphasizes competency in standard written English and fluency in writing, grammatical control, comprehension of college-level texts, practice in listening and speaking, and expansion of English-language skills for academic and professional purposes. Credits: 3. Prerequisites: EN Placement exam. Co-requisites: None. Notes: None.

**EN 1013W College Writing Workshop**

This course introduces students to the expectations of college-level writing, including writing-process fundamentals and the inherently rhetorical dimension of all writing. Through the strategies of invention, drafting, responding and revising, students better understand and hone their writing abilities. The instructor emphasizes argumentative and analytical writing, critical reading and writing, use of academic sources, knowledge of academic forms and sentence-level control. Credits: 3. Prerequisites: None. Co-requisites: None. Notes: None.
EN 1033W College Writing Workshop for ESL Students

This course introduces non-native English speakers to the expectations of college-level writing, including writing-process fundamentals and the inherently rhetorical dimension of all writing. Through the strategies of invention, drafting, responding and revising, students better understand and hone their writing abilities. Instructors focus on argumentative and analytical writing, critical reading and writing, use of academic sources, knowledge of academic forms and sentence-level control. Credits: 3. Prerequisites: For some students, placement into this course may require the prerequisite of EN 1080W or EN 1090W. For most, there is no prerequisite. Co-requisite: None. Notes: None.

EN 1013H Honors Program College Writing Workshop

This course develops the advanced abilities of students in the Polytechnic Honors Program. While it introduces students to the expectations of college-level writing—including writing-process fundamentals and the inherently rhetorical dimension of all writing—it moves quickly to advanced writing applications. Through the strategies of invention, drafting, responding and revising, students better understand and hone their writing abilities as they critique and challenge one another. Instructors emphasize argumentative and analytical writing, critical reading and writing, use of academic sources, knowledge of academic forms and sentence-level control. Credits: 3. Prerequisites: For some students, placement into the course may require the prerequisite of EN 1080W or EN 1090W. For most, there is no prerequisite. Co-requisite: None. Notes: None.

EN 1233W First-Year Writing Seminar for ESL Students

An introduction to advanced writing techniques for non-native English speakers, this writing-intensive course focuses on variable topics defined by individual instructors. The small seminar-format course introduces students to core questions relating science and technology to the humanities and social sciences. Building on writing skills learned in EN 1033 or EN 1013W/W, the course provides continued, intensive practice in college-level writing, research and critical thinking skills. Credits: 3. Prerequisites: EN 1013W or EN 1033. Co-requisites: None. Notes: None.

EN 1203H Honors Program First-Year Writing Seminar

An introduction to advanced techniques, this writing-intensive course will focus on variable topics defined by individual instructors. The small, seminar-format course introduces students to core questions relating science and technology to the humanities and social sciences. The course builds on writing skills learned in EN 1013 H, and offers continued, intensive practice in college-level writing, research and critical-thinking skills. The pace and expectations of this honors-program course exceed those of the non-honors sections. Credits: 3. Prerequisites: EN 1013WH. Co-requisites: None. Notes: None.

HuSS 1023W First-Year Writing Seminar

As an introduction to advanced techniques in writing, this writing-intensive course focuses on variable topics defined by individual instructors. The small seminar-format course introduces students to core questions relating science and technology to the humanities and social sciences. The seminar builds on writing skills learned in HUSS 1013W and provides continued, intensive practice in college-level writing, research and critical-thinking skills. Credits: 3. Prerequisites: HuSS 1013W. Co-requisites: None. Notes: None.

AH 2113 History of Art as Techné

This introduction to Western art in different historical periods focuses on pre-20th-century art. The course samples important periods and themes in art history, from ancient Egypt and archaic Greece to the present. This course also enhances cultural, social and aesthetic understanding through intensive engagement with a variety of visual forms in different historical periods. In addition, the course focuses on technological and social developments that drive creative innovation. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

AH 3113 Contemporary Art, Electronic Art and Technology

This audiovisual lecture course focuses on contemporary international art. Each week will feature a selected media element (film, video or audio) to illustrate the focus of the session, a required reading assignment and a discussion period. Credits: 3. Prerequisites: AH 2113. Co-requisites: None. Notes: Satisfies a HuSS elective.

AH 4911/4912/4913 Special Topics in Art History

This advanced seminar explores a specific topic in historical or contemporary art history. Students are expected to participate actively through seminar presentations on specific subjects and through vigorous class discussion and debate. Credits: Variable. Prerequisites: AH 3113. Co-requisites: None. Notes: Satisfies a HuSS elective.

AN 2383 Jade, the Stone of Heaven

Four cultures-civilizations around the world have discovered jade and considered it a sacred substance, divine and useful. In Pre-Columbian Mesoamerica jade symbolized the state and the authority of the gods, and was a useful material more precious than gold. In the Middle Kingdom, or China, jade was the magical “Stone of Heaven,” celebrated from prehistory into modern times. Jade is found in Neolithic graves, and small disks of fine white jade were set in the gold medals of the recent Chinese Olympics. This course summarizes how jade fit into several cultures and civilizations around the world, with emphasis on historical and modern China. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

AN 2883 The Upper Paleolithic and the Evolution of Modernity

During the last decade, archaeology and anthropology began to intensively study the evolution of the Upper Paleolithic period, which lasted from roughly 40,000 years ago until about 10,000 years ago. This period coincides with the last part of the Pleistocene glacial epoch. The Upper Paleolithic was followed by the Mesolithic and the Neolithic revolution, which saw the invention of agriculture and animal husbandry and the unfolding of recent human cultures and civilizations. The course investigates how new scholarship casts the Upper Paleolithic as a time of intensive cultural and social growth when the human species witnessed its ascent into “modernity.” This scholarship casts modernity in a novel sense as the time in which humans forged new modes of cultural and ecological adaptation into present-day hunting and gathering societies. This new scholarship will help researchers to un-
understand the Upper Paleolithic as the most salient shaper of human nature and action. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

EN 2143 Machines Made of Words I: Poetry as Design
Following (and challenging) William Carlos Williams’s definition of a poem as “a machine made of words,” this course examines how poems are made. The course explores questions of invention and innovation in poetic form and how “form” and “content” interact in a wide range of poetry—from the earliest English ballads to contemporary work. Students write five critical essays. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

EN 2133W The Invention of the Word
This course explores the ways American writers have imagined—and participated in—the invention of nation, culture and self, from the Colonial period through the Civil Rights era. Special attention is paid to how American writers have engaged with questions surrounding the “newness” of American culture and how literature has reflected and affected “change” in American culture. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

EN 2163 Shakespeare and the Creative Imagination
In this course, students learn how Shakespeare’s writings were influenced by his literary forebears and how he has inspired artists since his own time. Through this approach, the course explores the author’s particular creative genius and his legacy. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

EN 2173W The World’s Greatest Journeys
In this introduction to the literature of the journey, from several countries and historical periods, the focus is on the place of science, innovation and invention in these works. This writing-intensive course emphasizes revision. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

EN 2183W The Novella: Between the Short Story and the Novel
This course introduces the origins, characteristics and innovative qualities of the novella from several countries and historical periods. The course compares this genre with the novel and short story. Students discuss and write about assigned works. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

EN 3133 Machines Made of Words II: Designing Poetry
In this seminar/workshop, students read a wide range of poetic forms or structures and practice making poems, focusing on the reading and composition of poems as forms of design. Credits: 3. Prerequisites: EN 2143W or permission of instructor. Co-requisites: None. Notes: Satisfies a HuSS elective.

EN 4911/4912/4913 Special Topics in Literature
This course discusses variable topics in literature. Credits: Variable. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

HI 3403 History of Political Technology
This course examines the history of American elections through the lens of the technologies employed to win them—from the use of the barbeque and distilled whiskey in the Colonial period through the 19th century to the advent of polling, marketing and the blogosphere in the 21st century. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

MD 2163W Media Studies 1
This historical survey of media, from oral culture to the Internet, is a foundation for analyzing the historical and contemporary media practices and provides vital critical tools for creative professionals in a dynamic culture. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.
This critical survey of cinema, from the Lumière brothers to the immediate post—World War II period, covers genres including short and feature formats in documentary, drama and animation. Works will be examined in detail, with attention to their place in the development of the form and their cultural and social context. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

MD 2263W Digital Humanities

What happens to works of the humanities when they are distributed electronically and created on computers? What values from the analog humanities should be preserved in the digital world? This course examines traditional works of literature available in electronic formats as well as digital-only creations. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

MD 3163W Media Studies 2

Where MS 2163 was primarily a historical orientation to media communications, this course is its complement: a critical orientation. Drawing on their evolving research, discursive and creative skills, students in DM 2163 are expected to consider contemporary media-communications practices as integral parts of an ongoing global cultural process, with all of the potential that implies. Credits: 3. Prerequisites: MS 2163W. Co-requisites: None. Notes: Satisfies a HuSS elective.

MD 3213W Cinema 1948–2000

Where MS 2163 was primarily a historical orientation to media communications, this course is its complement: a critical orientation. Drawing on their evolving research, discursive and creative skills, students in DM 2163 are expected to consider contemporary media-communications practices as integral parts of an ongoing global cultural process, with all of the potential that implies. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H, a 2000-level HuSS course. Co-requisites: None. Notes: Satisfies a HuSS elective.

MD 3263 Hypermedia in Context

This course investigates precursors to new media, revealing the possibilities and limitations of today’s incarnations. Searching analog media for examples of supposedly new technologies—such as associative thinking, multimedia and participatory design—the course examines the social and economic structures that allow such tools to arise and to determine what exactly is “new” in new media. The course also considers how people can use the concept of antecedent to critique present manifestations of media, and how ideas from the past can be incorporated into the present while avoiding homologies. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

MD 4163W Media Studies 3

This seminar, a synthesis of the historical and critical approaches developed in the prerequisites, MS 2163 and MS 3163, asks students to participate actively and to consider in depth key aspects of media. Credits: Variable. Prerequisites: MS 3163W. Co-requisites: None. Notes: Satisfies a HuSS elective.

MD 4911/4912/4913 Special Topics in Media Studies

This advanced seminar looks at contemporary developments in media communications from a global perspective. Students are expected to participate actively through presentations on specific subjects and through vigorous seminar discussion and debate. Credits: Variable. Prerequisites: MS 3163W. Co-requisites: None. Notes: Satisfies a HuSS elective.

MU 2113 Western Music Theory

This course, an introduction to the fundamentals of Western music theory, focuses on nomenclature, basic notation literacy and fundamentals of harmony, counterpoint and rhythm. Students complete weekly exercises to learn basic skills in composition and musicianship, including dictation, sight-singing, chord analysis and identification, transposition and voice-leading. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

MU 2213 Non-Western Music Appreciation

This analysis-and-discussion course examines the music of non-Western cultures, from the pre-Colonial period through the present day. The course focuses on performance practices, the relationship between music and the arts, the influence of Western music and technology, and hybridity in contemporary popular music. A topical focus on different cultures will look at the musical traditions of the Middle East, North and Sub-Saharan Africa, India, and East and Southeast Asia. Students complete regular listening assignments and perform research on musical styles and traditions. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

MU 3113 Music Since 1900

This course, exploring art music of the 20th century, focuses on social and historical trends and their impact on developments in compositional practice, instrumental forms and technology. Topics covered include the role of nationalism in music, the European serialist avant-garde, the New York School, the changing nature of the composer in society, the increasing role of technology, and the musical dialogue between art and popular music. Students complete regular listening and writing assignments and are required to attend performances outside of class. Credits: 3. Prerequisites: MU 2113. Co-requisites: None. Notes: Satisfies a HuSS elective.

MU 3133 Music Theory for Songwriters

In this introduction to music theory as it applies to songwriting, students compose music and lyrics, building on a practical application of scale, chord and harmony theory. An integral part of the course is an introduction to the craft of poetry as applied to song-lyric writing. Students need free access to a guitar or piano, and some experience on either instrument is preferred. However, neither formal training nor technical proficiency is required. Credits: 3. Prerequisites: Instructor’s permission or MU 2113. Co-requisites: None. Notes: Satisfies a HuSS elective.

MU 3213 The Musical Instrument

This course, on the art music of the 20th century, focuses on social and historical trends and their impact on developments in compositional practice, instrumental forms and technology. Topics covered include the role of nationalism in music, the European serialist avant-garde, the New York School, the changing nature of the composer in society, the increasing role of technology, and the musical dialogue between art and popular music. Students complete regular listening and writing assignments and are required to attend performances outside of class. Prerequisites: MU 2113. Co-requisites: None. Notes: Satisfies a HuSS elective.
MU 3313 Phonography

This course looks critically at the development of recording technology as a catalyst for trends in popular and art music, from the early 20th century to the present. Topics include the rise and possible fall of the record industry in the United States, the development of musique concrète and electroacoustic music, and the massive impact of recording technology on popular urban, electronic and dance music. Students are encouraged to explore how the artistic practices of sampling, dubbing and remixing have expressed themselves in different genres, scenes and musical styles. The course also looks at current legal, ethical and social issues behind musical copyright and distribution. Credits: 3. Prerequisites: MU 3XXX. Co-requisites: None. Notes: Satisfies a HuSS elective.

MU 4113 Musical Informatics Studio

This studio examines how music and sound actually "work," from the view of mathematics, physics and information theory. This is a music-theory course in reverse. The class looks at the underlying mathematical principles behind harmony, melody, rhythm (and their "scientific" equivalents of frequency, timbre and duration). Using acoustics, instrument design, and basic analog and digital-signal theory, students investigate the properties of music from a scientific, engineering and analytic perspective. Students perform research on topics of interest and present their findings semiweekly. Credits: 3. Prerequisites: MU 3XXX or DM 3113. Co-requisites: None. Notes: Satisfies a HuSS elective.

MU 4313 Psychoacoustics

This course looks at how people hear and listen to sound and music from a physiological, psychological and sociological frame of reference. The class investigates the basics of human hearing and auditory perception and examines how sonic and musical practices and vocabularies evolve based on how people hear. Students perform basic research (including developing simple experiments) and present their findings semiweekly. Credits: 3. Prerequisites: MU 3XXX. Co-requisites: None. Notes: Satisfies a HuSS elective.

MU 4911/4912/4913 Special Topics in Music

This variable-credit intensive course, combining music theory and practice, may be repeated for credit under different topics. Credits: Variable. Prerequisites: MU 3XXX. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 2013W Ancient Greek Philosophy

This introduction to ancient philosophy in the Western tradition covers the pre-Socratic philosophers Plato and Aristotle. The course unites them in a dialogue, highlighting their similarities and differences to show their importance in the history of philosophy and their relevance to society today. The course emphasizes the history and methods of early Greek science and examines Greek attitudes toward technology and their implications for science and society. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 2023W Early Modern Philosophy in Europe

This course examines the central figures and issues of the Modern era, especially the European scientific and ontological revolution of the 16th, 17th and 18th centuries. The course focuses on issues that were in those eras and that remain important today, including the state of nature and society, epistemology, metaphysics and the role of God in philosophical and scientific thinking. Topics include the Renaissance and the rise of modern science, Descartes and rationalism, Locke, Berkeley, Hume and empiricism, and Kant and the Copernican revolution. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 2113W Philosophy of Religion

This course investigates religious concepts, belief systems and practices. By analyzing central concepts of religion—such as God, faith, revelation, salvation and the relationships between religion and science and morality and art—believers and non-believers can achieve a more sophisticated understanding and appreciation of religions. The course considers the epistemological status of religious language (e.g., propositions that refer to God). The class addresses such topics as the phenomenology of religious experience, faith and reason, arguments for God's existence, the problem of evil, religious language, life and the after-life, and the conflicting claims of different religions. Special attention is given to the dialogue between science and religion today. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

PS 3693 Humor and Modern Media

Humor is considered one of the most pleasurable positive emotions. The questions asked will include What makes something funny? Why do people find someone falling down funny in one culture and tragic in another? What are the cross-cultural implications of humor and how have they been affected by a global worldview? How has the Internet changed our view of humor, now that technologies like YouTube make it possible for anyone to be a director or cinematographer with a worldwide audience? Topics will include psychoanalysis; superiority; reversal theories of humor; the psychology and psychobiology of humor; and humor, laughter and mental health. Credits: 3. Prerequisites: HuSS 1013W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

STS Cluster Courses

(For STS-designated courses, see the catalog entry under Science and Technology Studies.)

HI 2203 Medieval Technology

This course considers medieval heritage, culture, society, technology and its impact and continuity in modern times. The course looks at the nuclear family as it originated in medieval times, and emphasizes concepts of modern law, religion, war, science, race and class. Credits: 3. Prerequisites: HuSS 1013W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

HI 2213 History of Aviation and Aviation Technology

In little more than 100 years, aviation has passed from a ground-hugging flight of less than a minute to high-altitude, supersonic flights that cross continents and oceans. This course surveys the history of aviation and the technological innovations that led to this crucial modern technology. This course also discusses the physics of flight, how increased understanding of aerodynamic principles led to successive aircraft improvements, and the development of new materials and control systems. Although military research drove many technological innovations, this course focuses on the economics and development of commercial aviation, which has changed the world. The course also looks at ultramodern trends in aircraft design and control, including unmanned cruise missiles and aircraft, and new commercial-aircraft designs and production techniques. Credits: 3. Prerequisites: HuSS 1013W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.
HI 2233W Introduction to the History of Western Technology

This course surveys generally the history of technology (from the early modern period to the present) and investigates how technology shapes society, and how society molds technology. Topics include ancient technologies, the printing press, the Industrial Revolution, the replacing of laborers with machines, electricity, transportation, Ford and the invention of the automobile, Taylorism and the organization of labor, technology during World War II (including radar, V1 and V2 rockets and the Enigma machine) and the rise of the NASA space program. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

HI 2243 The History of Light

What is the nature of light? How does it relate to magnets, electric circuits, TVs, radioactivity and the fundamental forces of nature? More importantly, what really happens to your burrito when you microwave it? This course answers these and similar questions by following the historical development of three apparently distinct and unrelated phenomena—electricity, magnetism and light. Topics range from descriptions of these phenomena by the Greeks to Maxwell’s 19th-century unification of them into a single phenomenon to Einstein’s theory of special relativity to their incorporation into the Standard Model of contemporary physics. The course considers theoretical descriptions of the phenomena and technologies derived from them. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

HI 2253 From Heat Engines to Black Holes

What is the nature of heat? How does it relate to atoms, black holes, information and a demon in a box full of gas molecules? This course answers these questions by developing the history of thermodynamics. That history begins with early 18th-century caloric theories of heat, 19th-century analyses of steam engines, the kinetic theory of gases, the statistical approach to mechanics, atomic theories of matter, the concept of entropy, early 20th-century concepts of information and, finally, current applications to black holes (as well as Maxwell and his famous demon). The course considers theoretical descriptions of the phenomena and the technologies derived from them. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

HI 2263 The Ship

Ships, the largest human-made moving objects, have played a pivotal role in trade and warfare throughout history. This course covers the history, development, and technology of ships from ancient times to the present. The course discusses aspects of the atmosphere and seas as they relate to ship design and use. Technological advances in hull design, materials, sails and power also will be discussed. The use of ships in trade, human transportation, warfare, fishing, piracy and global exploration are covered, along with the satellite industries of shipbuilding and port support. The course also looks at the manning of ships, the social and military organization, the life of mariners, the development of navigation and its technologies in an historical context, and submarine evolution and technologies. Credits: 3. Prerequisites: HuSS 1023 or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

HI 3413 History of Intellectual Property in America

This course, a history of successive regimes of patent, trade secret, copyright and trademark law from the early modern period to the present, introduces undergraduates to basic intellectual property concepts, language, the political and distributive implications of intellectual property regimes, and the possibility or even inevitability of alternative regimes. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.
PL 2203 Philosophy of Technology

This survey of prominent approaches to the philosophy of technology asks: What are the philosophical problems presented by technology? How does technology influence ethics, politics and society? What is the relation of philosophy of technology to the traditional branches of philosophy (aesthetics, epistemology, metaphysics)? Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 2253 Science and Pseudoscience

This survey of popular pseudoscientific claims emphasizes issues in the philosophy of science, including demarcation, evidential warrant, scientific progress, science and public policy, and fallacies of reasoning. Topics include UFO sightings and alien abductions, the Nemesis theory of dinosaur extinctions, astrology, creationism, psychic phenomena, theories of intelligence, alternative medicines, global warming and cold fusion. The course emphasizes student input to determine the topics covered. Credits: 3. Prerequisites: HuSS 1013W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 2273 Space and Spacetime

What is the nature of space? Is it an independently existing substance, or does it merely consist of the relations between physical objects? Can motion be described simply in terms of the relational properties of objects, or must people always define motion with respect to an absolute motionless substratum? Does the existence of left-handed gloves entail the existence of absolute space? This course considers these and other questions about the nature of space and time as they appear in the writings of philosophers and scientists, including Plato, Aristotle, Descartes, Newton, Leibniz, Berkeley, Kant, Poincaré and Einstein. Credits: 3. Prerequisites: HuSS 1013W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 2283 Philosophy of Relativity

The first part of this course develops the physics underlying special relativity and considers such conceptual questions as: Does Special Relativity prohibit faster-than-light travel? Does it allow a traveling astronaut to age less and return home in the distant future? What is the significance of Einstein's famous equation "E = mc²"? The second part of the course develops the physics underlying general relativity and considers conceptual issues surrounding such current applications as time machines, wormholes and "space-time" subspaces. Credits: 3. Prerequisites: HuSS 1013W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 2293 Philosophy of Quantum Mechanics

Quantum mechanics is today the best-confirmed theory of particle dynamics. The theory is not only the basis for all digital technologies, but also the theoretical foundation for the best-confirmed theories of matter (quantum field theories). However, since its inception, quantum mechanics has been beset with conceptual problems. No consensus exists on how to interpret it: What would the world be like if it were true? This course develops the mathematical formalism of the theory and explores several proposals about how to interpret it. Other topics include conceptual issues of quantum teleportation, quantum computing and quantum cryptography. Credits: 3. Prerequisites: HuSS 1013W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 3003 Metalogic

What is the relation between truth and proof? Are there true statements about natural numbers that cannot, in principle, be proven? Can an algorithm be written to decide which statements about numbers are provable and which are not? What is the mathematical basis of the concept of a mechanically implementable algorithm (i.e., a computer program)? What does all of this have to do with logic? This course addresses these and other questions by investigating the properties of propositional and 1st-order logic. Topics include the soundness and completeness of formal systems of propositional and 1st-order logic, the Löwenheim-Skolem and Compactness theorems for 1st-order logic, Gödel's incompleteness theorems for formal arithmetic, and Turing machines and the notions of computability and undecidability. Credits: 3. Prerequisites: PL 2003 or permission of the instructor. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 3203W Philosophy of Technology: The Critique of Heidegger

This course examines, critically and reflectively, the impact, effects and outcomes of technologies upon human activities. The course studies the nature of the technologically textured ecosystem, or technosystem. The course focuses on how technologies change human life, individually, socially and culturally, and considers the effects of human-technology relations on science, culture, democracy and human values. Emphasis is on the position of Heidegger, his predecessors, followers and critics. The course will examine Heidegger's unusual interpretation of East Asian philosophy in relation to technology. Heidegger claimed to find merit in Eastern thought, and his critique of Western technology is seen in an Eastern philosophical context. Credits: 3. Prerequisites: One Level 2 STS Cluster HuSS elective. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 3213 The Phenomenon of Life

This course offers an existential interpretation of biological facts. The problem of inwardness as examined in modern philosophy is addressed from the standpoint of scientific biology. The course approach is not be limited by the anthropocentric tradition of idealist and existentialist philosophy, nor the materialist standards of natural science. The course explores the great contradictions of human experience—freedom and necessity, autonomy and dependence, self and world, creativity and mortality—through the ascending order of organic powers and functions: metabolism, motility, desiring, sensing and perceiving and on to imagination, art and mind. Credits: 3. Prerequisites: One Level 2 STS Cluster HuSS elective. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 3253 Philosophy of Science

The philosophy of science is divided into two subfields: The first studies the nature and methodology of science. The second examines the conceptual and philosophical foundations of particular scientific fields. This course considers topics in the first subfield, including philosophical attempts to describe scientific explanations, laws of nature and the process by which evidence confirms theories in science. The course also considers the nature of scientific theories: what they
are, how they change and how they can and should be interpreted. Credits: 3. Prerequisites: One Level 2 STS Cluster HuSS elective. Co-requisites: None. Notes: Satisfies a HuSS elective.

**PL3263 Physics, Information and Computation**

This course investigates the conceptual foundations of contemporary notions of information and computation from the point of view of physics. The course is divided into four parts: Part 1 considers the relation between entropy and global concepts of information; Part 2 considers the relation between spacetime structure and physical concepts of computation; Part 3 considers the relation between quantum and classical information; and Part 4 considers attempts to reconcile physics entirely in information-theoretic terms. Credits: 3. Prerequisites: One Level 2 STS Cluster HuSS elective. Co-requisites: None. Notes: Satisfies a HuSS elective.

**PS 2613 Psychology of the Internet**

This class investigates aspects of human behavior in terms of the Internet. The Internet is a technological phenomenon that allows people separated by huge distances to interact with each other in relatively seamless fashion. Does the Internet allow people to connect in ways never possible before? Or are these new connections variations of previous human interactions, only on a computer screen. For all of its positive attributes, the Internet has a negative side: People become increasingly dependent on interacting only through the Internet. Is this dysfunctional? What characterizes addictive behavior? Can addictive behavior be attributed to a physical action as opposed to a biological substance? Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

**PS 2643 Creativity and Innovation**

This course explores the nature of the creative act. What does it take to be creative? What are some of the cognitive and personality variables that aid and hinder creativity? What are the characteristics of great innovators? Is innovation purely individual? Or are innovators a product of their time? The course also surveys literature on teaching creativity and innovation. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

**PS 2663 Intelligence: Real and Artificial**

This course explores the nature of intelligence, both human and computer, and covers historical debates centered on intelligence testing. Can computers be programmed to think? If they can, what would a "thinking" computer look like? The course covers issues such as the Turing test and human-computer interaction. Credits: 3. Prerequisites: HuSS 1013W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

**PS 3603 Psychology of Internet Security**

This course looks at the relationship between psychology and online security. How do computer hackers access secure computers strictly by asking people for their password? What are the key features of current security messages and how can they be made more explicit so the average computer user can understand them? What social-psychological principles are required for a secure network? And what perceptual issues help secure a computer network? Credits: 3. Prerequisites: One Level 2 STS Cluster HuSS elective. Co-requisites: None. Notes: Satisfies a HuSS elective.

**SEG Cluster Courses**

(For URB-designated courses, see the catalog entry under Sustainable Urban Environments.)

**HI 2003W The Age of Conquistadors**

This course will focus on European discovery of Americas since 1492. Emphasis will be given more to the conquest of Americas in Caribbean, Mexico, Peru, Central America, New Mexico and Brazil. In doing so, this course will address the role of the Catholic Church, the imposed imperial system and the sufferings of indigenous people. For many historians, 1492 is the landmark of European-dominated modernity. While the Chinese made a major breakthrough in navigation and while the Arab merchants traded globally, the Europeans were far behind in modernity. But by 1492 Europeans expanded their horizons to the Americas, Asia and Africa. Was it because of gold? Was it because of religious motivation? Or was it to save the "savages"? What consequences did the indigenous population face? What advancement did the Europeans make in such ventures? This course will address these questions. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

**HI 2103W Western and Non-Western Societies**

The course introduces a comparative study of Western and non-Western societies, emphasizing the importance of Western and non-Western relations and the impact Europe made upon the rest of the world. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

**HI 2163W History of Mass Media**

This mass-media history course examines broadsides, newspapers, cinema, radio, TV and the Internet, from the advent of cheap print in the early modern period to the turn of the 21st century. Themes include the history of mass-media technology, the mass dissemination of news and its effects on popular culture and gender relations, sensationalism, and the role of the media in developing advertising and consumer culture. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

**HI 2303 Introduction to New York City History**

This course looks at the history and development of the City of New York, from Verazzano’s exploration to the present. Major themes include the evolution of the city’s political economy, political and economic influences on land and space use, and ethnic and class conflict in the urban environment. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

**HI 2313 History of New York’s Urban Infrastructure**

This survey of New York City’s infrastructure concentrates on water, sanitation and public health, electrical and communications systems, the development of housing and real estate, the security infrastructure and plans for the future. The course explores how the city’s political economy has shaped its physical environment and how technological innovations have made the city modern and postmodern. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.
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HI 3103 Modern Asia

This course explores the major Asian civilizations since the mid-17th century, concentrating on their social, political, economic, religious and cultural histories. The course emphasizes principal Asian civilizations of China, India and Japan and also looks at Vietnam, Afghanistan and Iran. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

HI 3313 History and Literature of New York City in the 20th Century

This course examines the history and literature of New York in the 20th century, focusing on the city’s social and technological evolution since the late 19th century. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

HI 4303 Seminar in Urban Infrastructure History

This seminar investigates the urban and environmental history of New York City’s infrastructure, including water, sewage, transportation, housing and office construction. The course investigates these systems in the context of the environmental, political and economic concerns that shape the city’s infrastructure. The course looks at the transnational circulation of ideas about designing and constructing urban systems. Questions include: How and why are infrastructure systems built? Why are they built the way they are? How do the technologies used affect the environment? Are the systems sustainable and interoperable? How do ideas about infrastructural needs, design and financing circulate transnationally? Credits: 3. Prerequisites: HI 2313 or instructor’s permission. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 2243W Thinking About the Environment

This survey of contemporary environmental issues emphasizes developing the reasoning skills needed for informed judgments. Topics include the history of environmentalism in the United States, the global character of the environmental crisis, and special topics, including atmospheric ozone, global warming, acid rain, air pollution, global population growth, pesticides, nuclear power, alternative energy, biodiversity and species extinction, and genetically modified crops. The limits of technology to resolve environmental problems is also addressed. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

PL 3103W Philosophy East and West

Philosophy develops in different ways in different cultures. Because philosophy aims to be universal and to address fundamental issues without cultural bias, these differences in philosophical development raise important questions. This course introduces the classical problems of philosophy from traditionally Eastern and Western perspectives. Standard readings from Greek and Roman, European and American philosophy are compared with parallel texts from other traditions, including Arabic, Chinese and Indian. Science and technology development in each tradition is also covered. Credits: 3. Prerequisites: One Level 2 SEG Cluster Elective. Co-requisites: None. Notes: Satisfies a HuSS elective.

PS 2323W Environmental Psychology

This course looks at how people interact with their environments: how settings affect behavior; how people change environments to fit their needs; and how people can become an active part of the environmental-design process. The course discusses how people use space and the way environmental design meets (or fails to meet) human needs. These concerns are valid for very-small-scale design problems (as in human-factors engineering); mid-size spaces (architecture and interior design); large-scale spaces (communities, urban areas). Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

PS 3723 Psychology of Sustainability

This course addresses the psychological bases of environmental problems, investigates theories of behavior change as they relate to environmental issues and introduces practical strategies to foster behavior change. Topics include the ways in which the fit (or lack of it) of design to human behavior can affect environmentally relevant behaviors, such as energy use and recycling. Course issues include designing green buildings and creating sustainable communities. Credits: 3. Prerequisites: One Level 2 PS Elective. Co-requisites: None. Notes: Satisfies a HuSS elective.

PS 3743 Psychology of Transportation

The human element is the central focus of all transit systems. How users respond to a transportation system ultimately determines its success or failure. Psychological and behavioral issues range from the small scale (ergonomics of signal and platform design; design that causes slips, trips and falls), to the psychological and psycho-physiological (such as commuter stress), through large-scale implementation (mode choice, social impacts of highways or transit lines). Credits: 3. Prerequisites: One Level 2 PS Elective. Co-requisites: None. Notes: Satisfies a HuSS elective.

PS 3753 Psychology of Living in Extreme Environments

This course considers issues, research and theory in relation to creating human habitats in extreme space, undersea and polar regions. The course reviews firsthand experiences and formal studies of life in these settings, and extrapolates from work in other, less extreme human settings. Psychological issues include privacy, territoriality, isolation and crowding, light and views of nature, as well as personality and organizational issues. Students complete a research paper and engage in a team-design project. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

PS 3813 Social Psychology of Virtual Worlds

This course explores human relations in the virtual world. Do real-world interactions maintain themselves in an online community, or do the rules of social interaction change significantly in a virtual environment? When people perceive themselves as being anonymous, do they feel the same responsibility for their own behavior, or do they interact with others differently as they would in the real world? This course examines the psychology of online, virtual relationships with a view to compare and contrast them with real-world relationships. Credits: 3. Prerequisites: One Level 2 PS Elective. Co-requisites: None. Notes: Satisfies a HuSS elective.

PS 3833 Special Topics in Psychology

This course discusses new or experimental topics in psychology offered by current or visiting faculty. Credits: 3. Prerequisites: One Level 2 PS course. Co-requisites: None. Notes: Satisfies a HuSS elective.
PS 4443 Guided Readings in Psychology

The course focuses on selected problems in psychology. Faculty members supervise students in pre-arranged individual or group studies/projects involving guided reading or research. This course is for mature students who undertake specialized independent study under tutorial guidance. Credits: 3. Prerequisites: Consent of instructor. Co-requisites: None. Notes: Satisfies a HuSS elective.

SEG 2193W Writing About Nature and the Environment

In this course, students explore today’s major environmental and ecological issues and write a number of pieces that discuss causes and possible solutions. Each article is based on a literature search and on interviews with professionals. Class critiques of articles are an integral part of the learning process. Topics include global warming, renewable energy, health and the environment, environmental law and biodiversity. Authors of the best pieces are encouraged to submit them for publication. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

SEG 291x Special Topics in Society, Environment and Globalization

This course looks at selected topics and issues concerning human society, the environment or globalization at the 2000 level. Credits: Variable. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

SEG 3213 Sustainable Systems and the Natural History of Whaling

The Cetaceans (whales, dolphins and porpoises), including some of the largest animals ever known to have lived, have evolved many unusual structures, physiologies and social organizations. This course discusses Cetacean biology, including their ecological relationships and their social and migratory behaviors. The course covers the history of the whaling industry, ships, catching whales, processing them and shipping the products. The uses and markets for the products also are discussed. Topics include the global aspects of whale harvesting, the depletion of whale stocks, and attempts by governments and concerned groups to control and stop the hunting. Discussions include international frustrations over whaling-control bans—whales were part of the ocean “commons,” accessible to all nations. The course also looks at the seal-fur trade industry and fishing threats to the dolphin/porpoise population. Credits: 3. Prerequisites: One Level 2 PS course. Co-requisites: None. Notes: Satisfies a HuSS elective.

SEG 391x Special Topics in Society, Environment and Globalization

This course covers selected topics and issues concerning human society, the environment or globalization at the 3000 level. Credits: Variable. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.

SEG 491x Special Topics in Society, Environment and Globalization

This course looks at selected topics and issues concerning human society, the environment or globalization at the 4000 level. Credits: 3. Prerequisites: HuSS 1023W or EN 1233W or EN 1203H. Co-requisites: None. Notes: Satisfies a HuSS elective.