The Big Problems courses that follow are among a growing number of capstone experiences offered as electives to third- and fourth-year students in the College.

“Big problems” are characteristically matters of global or universal concern that intersect with several disciplines and affect a variety of interest groups. They are problems for which solutions are crucially important but not obviously available.

Big Problems courses emphasize process as well as content: learning how to creatively confront difficult intellectual and pragmatic problems wider than one’s area or expertise and to consider how to deal with the uncertainty that results. This often points to the importance of working in groups. If the core curriculum provides a basis for learning and the majors develop more specialized knowledge, the Big Problems experience leads to the development of skills for thinking about and dealing with the important but unyielding issues of our time.

Big Problems courses use interdisciplinary team teaching, seeking to cross disciplines and divisions and to transcend familiar models of content, organization, and instruction.

**BIG PROBLEMS COURSES OFFERED IN 2021–22**

**BPRO 22800. Drinking Alcohol: Social Problem or Normal Cultural Practice? 100 Units.**
Alcohol is the most widely used psychoactive agent in the world, and, as archaeologists have recently demonstrated, it has a very long history dating back at least 9,000 years. This course will explore the issue of alcohol and drinking from a trans-disciplinary perspective. It will be co-taught by an anthropologist/archaeologist with experience in alcohol research and a neurobiologist who has experience with addiction research. Students will be confronted with literature on alcohol research from anthropology, sociology, history, biology, medicine, psychology, and public health and asked to think through the conflicts and contradictions. Selected case studies will be used to focus the discussion of broader theoretical concepts and competing perspectives introduced in the first part of the course. Topics for lectures and discussion include: What is alcohol? The early history of alcohol; Histories of drinking in ancient, medieval, and modern times; Alcohol and the political economy; Alcohol as a cultural artifact; Styles of drinking and intoxication; Alcohol, addiction, and social problems; Alcohol and religion; Alcohol and health benefits; Comparative case studies of drinking.

Instructor(s): M. Dieter, W. Green
Terms Offered: Winter
Prerequisite(s): PQ: Third or fourth-year standing.
Note(s): This course does not meet requirements for the biological sciences major.
Equivalent Course(s): BIOS 02280, HLTH 25310, ANTH 25310

**BPRO 23100. Food: From Need to Want, or, Ethics and Aesthetics. 100 Units.**

There is nothing more integral nor intimate to our survival than the act of eating. More than simply sustenance, food’s pleasure extends exponentially into cultural and global concerns that include climate change, resource distribution, and economic policies. From the relative smallness of, for example, snacking on a handful of raisins, the circumstances that involve its growth, production, distribution, and costs are far-reaching. Growing awareness of what we eat, where it comes from, and how it is produced necessarily addresses need as well as a complex set of aesthetic and ethical issues that spans disciplines and practices ranging from the personal, that is, what you put in your mouth, to the political, that is, economics, identity, labor, and the environment. The goal of this course is to engage a wholistic approach to scholarship, spanning the theoretical and the textual, the experiential and the aesthetic, the ethical and the social. We will address the rich importance of food not only within an academic context but also within our community including chefs, urban foragers, and farmers/growers as lecturers. In each week’s session, students will be provided with texts as well as other modes of knowledge production and acquisition including film, art, and gardens. Through this heterogeneous process the course is designed to set disciplinary, material, and temporal borders aside so that students, faculty, and the larger community can have these conversations in dialogue.

Instructor(s): L. Letinsky
Terms Offered: Winter
Prerequisite(s): PQ: Third- or fourth-year standing.
Equivalent Course(s): HLTH 23100, ARTH 29940, ARTV 20023, ENST 20023

**BPRO 25700. What Does it Mean to be Free to Speak? 100 Units.**
The idea of freedom of speech possesses tremendous political and cultural power in global discourses about what it means to live a good life in a good society. It is considered an indispensable precondition for the flourishing of the sciences and the arts, as well as for the proper functioning of democracy. Courts interpret freedom of speech as one of the core liberal rights. Public and private institutions like the University of Chicago proclaim a commitment to freedom of speech. And claims about the importance of freedom of speech pepper public discourse. But what does it mean to be free to speak? This course will explore this question historically, philosophically, and ethnographically. Students will learn about the fundamental sociality of human beings and think collectively about the implications that the indissoluble and necessary entanglement with others has for developing an inner life, the generation of ideas, and the willingness to articulate these ideas within various social contexts. Students will also learn about the different ways in which freedom of speech and thought has been understood over time, and the concrete political and social struggles that have shaped the development of...
ideas about freedom of speech. Class discussion will also explore how institutional arrangements shape ideas and practices of free speech.

Instructor(s): A. Glaeser, G. Lakier Terms Offered: Spring
Prerequisite(s): PQ: Third- or fourth-year standing
Equivalent Course(s): SOCI 20528, SOCI 30528

BPRO 25900. Digitizing Human Rights. 100 Units.
American politics and society continue to be beset by the reverberations of "alternative facts" and the logics of "both sides." One effect of these deployments is to mobilize relativism against human rights norms in ways that are both new and familiar. Moreover, the increasing digitization of our lives introduces profound and similarly destabilizing departures from the circumstances under which human rights were originally conceived, and itself calls for revisiting their foundations. This seminar will do so in a unique way. The class will produce an annotated, digital "declaration" of human rights that explores theoretical foundations for each provision. Annotations will draw on a broad array of philosophical traditions and contextualize current issues and debates. Students will thereby radically re-think what such a declaration should encompass and why. We will also problematize the document itself to build into our work a consideration of the digital form through which we are thinking and representing claims about humanity, morality, truth, and justice, for example, that are entailed in the project of "human rights." What are the visual, spatial, auditory, and other potentials of such a declaration, and how do we attend to and reflect the radicality of the project project in the design of the document itself? The class will meet both in small groups and the larger seminar to refine the provisions and annotations, review progress, and shape the document as a whole.

Instructor(s): J. Spruill, N. Briz Terms Offered: Spring
Prerequisite(s): PQ: Third- or fourth-year standing.
Equivalent Course(s): HMRT 25900, MAAD 25900

BPRO 27155. Urban Design with Nature. 100 Units.
This course will use the Chicago region as the setting to evaluate the social, environmental, and economic effects of alternative forms of human settlement. Students will examine the history, theory and practice of designing cities in sustainable ways - i.e., human settlements that are socially just, economically viable, and environmentally sound. Students will explore the literature on sustainable urban design from a variety of perspectives, and then focus on how sustainability theories play out in the Chicago region. How can Chicago's neighborhoods be designed to promote environmental, social, and economic sustainability goals? This course is part of the College Course Cluster program: Urban Design.

Instructor(s): Sabina Shaikh and Emily Talen Terms Offered: Autumn
Prerequisite(s): Third or fourth-year standing.
Note(s): Students who have taken ENST 27150: Urban Design with Nature: Assessing Social and Natural Realms in the Calumet Region in the Spring of 2018 may not enroll in this course.
Equivalent Course(s): PBPL 27156, GEOG 27155, ENST 27155

BPRO 27200. Sensing the Anthropocene. 100 Units.
In this co-taught 3-week and in-person course between the departments of English (Jennifer Scappettone) and Visual Arts (Amber Ginsburg), we will deploy those senses most overlooked in academic discourse surrounding aesthetics and urbanism-hearing, taste, touch, and smell-to explore the history and actuality of Chicago as a site of anthropogenic changes. Holding our classes entirely out of doors, we will move through the city seeking out and documenting traces of the city's foundations in phenomena such as the colonization of the ancestral homelands of the Three Fires Confederacy and trade routes of many other indigenous groups; the filling in of swamp; the redirection of the river; and the creation of transportation and industrial infrastructure-all with uneven effects on human and nonhuman inhabitants. Coursework will combine readings in history and theory of the Anthropocene together with examples of how artists and activists have made the Anthropocene visible and audible, providing forums for experimental documentation and annotations as we draw, score, map, narrate, sing, curate and collate our sensory experience of the Anthropocene.

Instructor(s): A. Ginsburg, J. Scappettone Terms Offered: Autumn
Prerequisite(s): Third or fourth-year standing.
Note(s): This intensive three-week course meets out of doors from September 27 through October 15. Graduate registration by Consent Only.
Equivalent Course(s): ENST 27700, ARTV 32322, ARCH 22322, CHST 27200, ARTV 22322, ENGL 27700, ENGL 47700

BPRO 28200. Narrating Migration. 100 Units.
Human migration is one of the most pressing global problems of our time, though it is not a new phenomenon. It has shaped societies throughout time, and the degree to which it is perceived as a "problem" or an "opportunity" changes radically according to circumstances and ideologies. In this course, we will analyze the different ways in which migration has been perceived, understood, and experienced. We will focus on two intense episodes in the global history of migration: migration from early nineteenth-century Britain; and migration to late 20th and 21st-century America. Our emphasis throughout will be on the ways in which migration is narrated: the stories that societies tell about the migration of themselves and others. We will cover a wide range of migration narratives, including those of creative writers and artists, and will consider them through the lenses of literary criticism, history, theory, and also artistic practice itself.

Instructor(s): J. McDonagh, V. Tran Terms Offered: Spring
Big Problems

Prerequisite(s): Third or fourth-year standing
Equivalent Course(s): ENGL 28200

BPRO 28300. Disability and Design. 100 Units.
Disability is often an afterthought, an unexpected tragedy to be mitigated, accommodated, or overcome. In cultural, political, and educational spheres, disabilities are non-normative, marginal, even invisible. This runs counter to many of our lived experiences of difference where, in fact, disabilities of all kinds are the “new normal.” In this interdisciplinary course, we center both the category and experience of disability. Moreover, we consider the stakes of explicitly designing for different kinds of bodies and minds. Rather than approaching disability as a problem to be accommodated, we consider the affordances that disability offers for design. This course begins by situating us in the growing discipline of Disability Studies and the activist (and intersectional) Disability Justice movement. We then move to four two-week units in specific areas where disability meets design: architecture, infrastructure, and public space; education and the classroom; economics, employment, and public policy; and aesthetics. Traversing from architecture to art, and from education to economic policy, this course asks how we can design for access.
Instructor(s): M. Friedner Terms Offered: Winter
Prerequisite(s): Third or fourth-year standing
Equivalent Course(s): HLTH 28301, MUSI 25719, CHDV 28301, MAAD 28300

BPRO 28400. Thinking Psychoanalytically: From the Sciences to the Arts. 100 Units.
Since Freud’s seminal investigation into the nature of the mind, psychoanalytic thinking has offered a unique approach to unconscious, relational, and meaningful dimensions of human experience. Despite assaults on the field from numerous quarters, psychoanalytic thinking remains central to the work of practitioners across an array of disciplines. After an introduction to key psychoanalytic concepts including the unconscious, repression, and transference, we will investigate some of the ways in which these ideas are mobilized within clinical practice, neuroscience, anthropology, education, philosophy, literary studies, and the visual arts through a series of lectures presented by specialists from these fields. Along the way, we will gain an appreciation for some of the ways in which psychoanalytic perspectives continue to inspire a variety of current scientific and humanistic projects.
Instructor(s): A. Beal; Staff Terms Offered: Spring
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): ANTH 24316

BPRO 28900. Inequality: Origins, Dimensions, and Policy. 100 Units.
For the last four decades, incomes in the United States and across the globe have grown more unequal. That fact has attracted worldwide attention from scholars, governments, religious figures, and public intellectuals. In this interdisciplinary course, participating faculty members drawn from across the University and invited guest speakers will trace and examine the sources and challenges of inequality and mobility in many of its dimensions, from economic, political, legal, biological, philosophical, public policy, and other perspectives. This course is part of the College Course Cluster program: Inequality.
Instructor(s): A. Sanderson and Staff Terms Offered: TBD
Prerequisite(s): Third- or fourth-year standing
Note(s): ECON 24720 or ECON 22410 may be used as an Economics elective, but only one of the two may be used toward Economics major requirements.
Equivalent Course(s): ECON 24720, PBPL 28920

Big Problems Courses Offered in Previous Years

Any of these courses may be offered in the future.

BPRO 21500. What is Civic Knowledge? 100 Units.
What is civic knowledge? Although civic rights and duties are supposedly universal to all citizens in a “democratic” nation, their implementation often depends on the strength of community connections and the circulation of knowledge across racial, class, and social boundaries. Focusing on the city of Chicago, we ask how citizens (in their roles as citizens) forge communities, make urban plans, and participate in civic affairs. How does the city construct the public spheres of its residents? Are the social practices of Chicagoans truly “democratic?” Could they be? What does “Chicago” stand for, as a political and cultural symbol? For both Chicagoans and their representatives, the circulation of knowledge depends not only on conventional media but also on how the city is constructed and managed through digital media.
Instructor(s): R. Schultz, M. Browning. Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): PHIL 21006, LLSO 24906, HUMA 24906, PBPL 21500

BPRO 22300. Empire. 100 Units.
Students in this course read a variety of texts (e.g., writings of Thucydides, Vergil, and Forster; documents from the caliphate of Andalusia; current articles). By viewing their own experiences in the light of Arab, British, Greek, and Roman empires, students reflect on America’s role in the cultures and countries of the twenty-first century. Economics, language, culture, ecology, and social ethics may provide the lenses through which students view and review their experiences.
Instructor(s): Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing. Completion of the general education requirement in civilization studies through a College-sponsored study abroad program.
Equivalent Course(s): HUMA 22303, CLCV 28707

BPRO 22400. The Ugly American Comes Home. 100 Units.
The aims of this course are to interrogate not only the experience of studying abroad, but also the condition of coming “home” and facing a range of needs to assimilate and articulate your experience. We address being abroad and afterward through a range of reading materials, including travel writings, philosophies of education, and considerations of narrative and perception. Writing assignments will explicitly address the challenge of integrating study abroad with other forms of knowledge and experience that characterize collegiate education.
Instructor(s): J. Ketelaar, M. Merritt Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing; completion of a study abroad program (University of Chicago program, other institution’s program, or self-structured program).
Equivalent Course(s): INST 22400

BPRO 22612. Topics in Medical Ethics. 100 Units.
Decisions about medical treatment, medical research and medical policy often have profound moral implications. Taught by a philosopher, three physicians, and a medical lawyer, this course will examine such issues as paternalism, autonomy, assisted suicide, abortion, organ markets, research ethics, and distributive justice in health care. (A)
Instructor(s): D. Brudney; Staff
Prerequisite(s): Third- or fourth-year standing. This course does not meet requirements for the Biological Sciences major.
Note(s): Philosophy majors: this course fulfills the practical philosophy (A) requirement.
Equivalent Course(s): PHIL 21609, BIOS 29314, HLTH 21609, HIPS 21609

BPRO 23000. Cosmos and Conscience: Looking for Ourselves Elsewhere. 100 Units.
Science and religion are two ways, among many others, that people can seek to know about reality: how do we construct ordered pictures of the whole-cosmos or civilization-and how do we relate to them in terms of action? How do we know what we do not know, and what does that kind of “knowledge” mean for the orientation and direction of human existence? How would cultural biases be affected by knowing that there are others “out there” in the universe, should we discover them? From various perspectives, this course addresses these questions of the origins, structures, and ends of reality as we look for ourselves-seek understanding of the human condition-in the cosmos but also in complex religious and cultural traditions. Whereas in our popular culture, science is often identified with the realm of knowledge and religion is simply “belief” or “practice,” the course also seeks to trace the rational limits of science and the rational force of religion with respect to the ethical problem of the right and good conduct of human life.
Instructor(s): W. Schweiker, D. York Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing.
Equivalent Course(s): ASTR 23000, RLST 23603

BPRO 23400. Is Development Sustainable? 100 Units.
This course examines alternative concepts and theoretical grounds for notions of sustainable development. We analyze core issues underlying population growth, resource extraction, “sustainable consumption,” environmental change, and social transformation through a consideration of economic, political, scientific, and cultural institutions and processes. The course, based on orienting lectures and intensive class discussion of core texts, focuses on the sustainability problems of both highly industrialized countries as well as of developing nations. Previous exposure to environmental or development issues, although useful, is not required.
Instructor(s): A. Kolata Terms Offered: Not offered in 2021-2022
Note(s): This course qualifies as a "Discovering Anthropology" selection for Anthropology Majors.
Equivalent Course(s): HIPS 23400, ENST 24400, PBPL 24400, ANTH 22015

BPRO 23500. The Organization of Knowledge. 100 Units.
This course explores several structures of knowledge that students may have encountered in their core and specialized education, with the goal of enabling students to identify and explore the implications of these different structures. We ask whether all knowledge is relative, and if so, to what? When things are structured differently, does that mean that knowledge is lost? Or are there several diverse ways of structuring knowledge, each of which may be viable? We read a wide range of classical and modern thinkers in various disciplines.
Instructor(s): W. Sterner, Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): HIPS 23500, HUMA 23502

BPRO 23600. Social Context, Biology, and Health. 100 Units.
We take for granted our relationships with other people as fundamental. Yet when these connections are absent or disrupted, our minds and biology are likewise disrupted. Epidemiological studies have now clearly established a relationship between social isolation and both mental and physical health. This course adopts an integrative interdisciplinary approach that spans the biological to sociological levels of analysis to explore the interactions involved and possible mechanisms by which the social world gets under the skin to affect the mind, brain, biology, and health.
Instructor(s): J. Cacioppo, M. McClintock, L. Waite Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): PSYC 25300

BPRO 23760. The Social Brain: Social Isolation and Loneliness. 100 Units.
The past two decades have witnessed a remarkable rise in the number of investigations published on the social brain. The discoveries conveyed by the titles of many of these reports (e.g., the neural basis of love, altruism, morality, generosity, trust) have piqued the interest of young investigators, funding agencies, the media, and laypeople alike. Such attention is a double-edged sword, however, as errors are exaggerated in importance, and oversimplifications create false expectations and, ultimately, disillusionment in what the field can contribute.
It is, of course, one thing to assume that neural processes underlie all psychological phenomenon, it is another to claim that a given brain region is the biological instantiation of complex psychological functions like the self, empathy or loneliness. The purpose of this course is to examine opportunities and challenges in this field primarily through research on two of the most important topics in the field: social isolation and empathy.
Instructor(s): J. Cacioppo, L. Hawkley
Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing. This course does not meet requirements for the biological sciences major.
Equivalent Course(s): BIOS 29324, PSYC 23760

BPRO 23800. The Affect System. 100 Units.
The term “affect” typically refers to feelings beyond those of the traditional senses, with an emphasis on the experience of emotions and variations in hedonic tone. The structure and processes underlying mental contents are not readily apparent, however, and most cognitive processes occur unconsciously with only selected outcomes reaching awareness. Over millions of years of evolution, efficient and manifold mechanisms have evolved for differentiating hostile from hospitable stimuli and for organizing adaptive responses to these stimuli. These are critically important functions for the evolution of mammals, and the integrated set of mechanisms that serve these functions can be thought of as an “affect system.” It is this affect system-its architecture and operating characteristics, as viewed from neural, psychological, social, and political perspectives-that is the focus of the course.
Instructor(s): J. Cacioppo, E. Oliver, S. Cacioppo
Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): PLSC 23810, PSYC 23880

BPRO 23900. Biological and Cultural Evolution. 100 Units.
This course draws on readings in and case studies of language evolution, biological evolution, cognitive development and scaffolding, processes of socialization and formation of groups and institutions, and the history and philosophy of science and technology. We seek primarily to elaborate theory to understand and model processes of cultural evolution, while exploring analogies, differences, and relations to biological evolution. This has been a highly contentious area, and we examine why. We seek to evaluate what such a theory could reasonably cover and what it cannot.
Instructor(s): W. Wimsatt, S. Mufwene
Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing or consent of instructor required; core background in evolution and genetics strongly recommended.

Note(s): This course does not meet requirements for the biological sciences major.
Equivalent Course(s): HIPS 23900, BIOS 29286, CHSS 37900, ANTH 28615, NCDV 27400, ANTH 38615, LING 11100, PHIL 22500, LING 39286, PHIL 32500, CHDV 23930, CHDV 33930

BPRO 24000. Understanding Wisdom. 100 Units.
Thinking about the nature of wisdom goes back to the Greek philosophers and the classical religious sages, but the concept of wisdom has changed in many ways over the history of thought. While wisdom has received less scholarly attention in modern times, it has recently re-emerged in popular discourse with a growing recognition of its potential importance for addressing complex issues in many domains. But what is wisdom? It’s often used with a meaning more akin to “smart” or “clever.” Is it just vast knowledge? This course will examine the nature
of wisdom—how it has been defined in philosophy and psychological science, how its meaning has changed, and what its essential components might be. We will discuss how current philosophical and psychological theories conceptualize wisdom and consider whether, and how, wisdom can be studied scientifically; that is, can wisdom be measured and experimentally manipulated to illuminate its underlying mechanisms and understand its functions? Finally, we will explore how concepts of wisdom can be applied in business, education, medicine, the law, and in the course of our everyday lives. Readings will be drawn from a wide array of disciplines including philosophy, classics, history, psychology, behavioral economics, medicine, and public policy. The course will include lectures by philosophers and psychologists. This course is offered in association with the Chicago Moral Philosophy Project and the Good Life program (the Hyde Park Institute).

Instructor(s): A. Henly; H. Nusbaum; C. Vogler Terms Offered: TBD
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): RLS 24055, PSYC 34060, PHIL 34050, PSYC 24060, CHDV 24050, PHIL 24050

BPRO 24100. Science and Religion. 100 Units.
In this course, we explore some aspects of the relations between science and religion in Western culture (e.g., Christian, Jewish, Islamic). Questions include: What are science and religion? Are they competing intellectual systems for making sense of the world? What are social institutions? Can they be in conflict with one another? Can they support one another? Each of the instructors treats these questions by examining certain historical episodes and texts to add different perspectives to the material.
Instructor(s): Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing

BPRO 24150. Romantic Love: Cultural, Philosophical, and Psychological Aspects. 100 Units.
This double-credit course combines humanistic and social scientific disciplines to examine the phenomenon of romantic love—a “big problem” in practical, theoretical, and cultural senses. The course starts by comparing representations of romantic love experiences in visual, musical and literary arts and myths. After exploring what may be specific to this form of love, we address two further issues: the role and sources of non-rational experience in romantic love, and the role of romantic love in modern marriage. Illumination of these topics is sought through the discussion of humanistic and social scientific texts and cinematic presentations.
Instructor(s): D. Orlinsky, Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Note(s): The class meets for six hours a week.
Equivalent Course(s): CHDV 24150, GNSE 24150, HUMA 24150

BPRO 24200. Psychoneuroimmunology. 100 Units.
This course covers all aspects of neuroimmunoendocrinology at the molecular, cellular, and organismal and social levels.
Instructor(s): M. McClintock, J. Quintans Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third or fourth-year standing
Note(s): This course does not meet requirements for the biological sciences major.
Equivalent Course(s): PSYC 24150, BIOS 02370, PSYC 34100, BPRO 44140

BPRO 24500. Language and Globalization. 100 Units.
Globalization has been a buzz word in our lives over the past few decades. It is also one of those terms whose varying meanings have become more and more challenging to characterize in a uniform way. The phenomena it names have been associated with important transformations in our cultures, including the languages we speak. Distinguishing myths from facts, this course articulates the different meanings of globalization, anchors them in a long history of socioeconomic colonization, and highlights the specific ways in which the phenomena it names have affected the structures and vitalities of languages around the world. We learn about the dynamics of population contact in class and their impact on the evolution of languages.
Instructor(s): S. Mufwene Terms Offered: Not offered in 2021-2022
Equivalent Course(s): LING 27500, CRES 37500, ANTH 27705, LING 37500, ANTH 47905, CRES 27500

BPRO 24600. Moments in Atheism. 100 Units.
Atheism is as old as religion. As religion and its place in society have evolved throughout history, so has the standing and philosophical justification for non-belief. This course examines the intellectual and cultural history of atheism in Western thought from antiquity to the present. We are concerned with the evolution of arguments for a non-religious worldview, as well as with the attitude of society toward atheism and atheists.
Instructor(s): S. Bartsch, Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): CLCV 22400, RLST 25200, HIST 29402

BPRO 24800. Complex Problem: World Hunger. 100 Units.
Few of our policymakers are experts in economics, agronomy, food science, and molecular biology, yet all of these disciplines are essential for developing strategies to end world hunger. Choosing one country as a test case, we look at the history, politics, governmental structure, population demographics, and agricultural challenges. We then study the theory of world markets, global trade, and microeconomics of developing nations, as well as the promise and limitation of traditional breeding and biotechnology.
Instructor(s): J. Malamy, Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third or fourth-year standing
BPRO 24900. Biology and Sociology of AIDS. 100 Units.
This interdisciplinary course deals with current issues of the AIDS epidemic.
Instructor(s): H. Pollack, J. Schneider Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Note(s): This course does not meet requirements for the biological sciences major.
Equivalent Course(s): ENST 24800, SOSC 26900, BIOS 02810, BPRO 24900

BPRO 25000. Images of Time: Japanese History Through Film. 100 Units.
Focusing attention on the emerging nexus between audio-visual media and historical studies, this course deals with theories of time, history, and representation while making those ideas and problems concrete through a study of the way in which history in Japan has been mediated by the cinema. A close reading of a wide range of films produced in and about Japan in tandem with primary and secondary materials on theories of time, images, and national history highlights the historicity and history of both film and Japan. All work in English.
Instructor(s): J. Ketelaar, Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing required; knowledge of Japanese not required.
Equivalent Course(s): CMST 24906, HIST 24603, EALC 24601

BPRO 25100. Evolutionary Theory and Its Role in the Human Sciences. 100 Units.
The course's aim is two-fold: (1) an examination of the origins and development of Darwin's theory from the early nineteenth century to the present; and (2) a selective investigation of the ways various disciplines of the human sciences (i.e., sociology, psychology, anthropology, ethics, politics, economics) have used evolutionary ideas.
Instructor(s): R. Richards, Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): PHIL 25123, HIPS 25801, HIST 25004

BPRO 25200. Body and Soul: Approaches to Prayer. 100 Units.
Why do we pray? Why do we experience prayer practice as reaching out towards an intentional being whom we cannot (except in representation) touch, see, or hear? This course approaches an answer to that question by looking at the way we pray, particularly in a Christian context. What kinds of bodily engagement do we find in prayer; what impact might prayer practice have upon our bodies; what bodily features of prayer might help to explain why its practice has been so compelling to so many for so many years?
Instructor(s): Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): RLST 28800

BPRO 25400. Jews and Christians in the Middle East. 100 Units.
Minorities around the world today invite questions about the prospects of pluralism and tolerance in modern societies. This course will explore these long-studied questions by examining the case of Jews and Christians in the Middle East, as well as its tangled histories with Muslims and Jews in Mediterranean Europe. Co-taught by a historian of Jews in Iraq and an anthropologist of Copts in Egypt, we will explore histories and ethnographies to consider the political, social, and religious dimensions of minority communities. Our syllabus also blends various literary genres and forms of media with academic scholarship to explore various voices in the conversation about Jews and Christians in the Middle East-from novels, films, and poetry to theological tracts and political treatises. We raise the following questions throughout our course: What terms for coexistence have governed Jews, Christians, and Muslims in the Mediterranean? How are religious practices and traditions linked to histories of rule? How do ideologies (e.g., nationalism, secularism, communism) shape the way minorities understand themselves and how society understands them?
Instructor(s): O. Bashkin, A. Heo Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): JWSC 26215, NEHC 20585, RLST 20231

BPRO 25500. Art and Human Rights. 100 Units.
This seminar-style course will explore historical and contemporary interventions in visual and performative artistic practices with human rights. Co-taught by a historian and theater-maker, the course will consider various paradigms for looking at how artists work on human rights. Course work will include critical readings, viewings of artistic work, and direct conversations with artists. Students will also participate in a multi-day summit on campus (April 29-May 2) that will bring distinguished artists from throughout the world to address the question "What is an artistic practice of human rights, conceptually, aesthetically and pragmatically?" Students will be given the option to produce either an academic or artistic final project.
Instructor(s): M. Bradley, L. Buxbaum Danzig Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): HMRT 25502, TAPS 25510, HIST 29906, ARTV 20009

BPRO 25600. How Does It Feel to Be an Outlier? Narratives of Medical ‘Otherness’. 100 Units.
Ideas of what is “normal” and what is “different” are fundamental organizing concepts in scientific and humanistic thinking. Writers in both the sciences and the humanities use these concepts particularly when constructing narratives about how individuals experience selfhood and the world. This course examines a body
of writings that depict the lives of those who identify, or are identified, as outliers. Students will approach this topic through medical case studies; through autobiographies and biographies about the experience of being physical or mental exceptions; and through writings by and about doctors, patients, medical researchers, and people who are the subjects of medical research. How do scientists, biographers, journalists, and others capture the experience of being different? What are the aims of outlier narratives? What ethical questions surround these writings? How do such narratives underscore or undercut concepts of what is "normal" and what is "different"?
In addition to surveying the landscape of outlier literature, students will research and write an outlier narrative in the form of a medical case study; biography; journalistic profile, or memoir.
Instructor(s): P. Mason, N. Titone Terms Offered: TBD
Prerequisite(s): Third or fourth-year standing
Equivalent Course(s): ENGL 25613, ENGL 45613

BPRO 26030. The Nuclear Age. 100 Units.
Seventy-five years ago a group of scientists launched the first sustained nuclear chain reaction, commonly known as CP-1, at the University of Chicago under Stagg Field. This course will be part of the commemoration and reflection taking place across the University this fall. Its goal will be to explore the ensuing Nuclear Age from different disciplinary perspectives by organizing a ring-lecture. Each week’s lecture, delivered by faculty from fields across the university (for instance, Physics, Biomedicine, Anthropology, and English), will be followed by a discussion section to synthesize and integrate not only the material from the weekly lectures, but the many events happening at the University this fall. CP-1 was not only a scientific achievement of the highest magnitude, but also a civilizing-change event that remains at the boundary of the thinkable.
Instructor(s): D. L. Nelson Terms Offered: Not offered in 2021-2022
Prerequisite(s): Second, third, or fourth-year standing
Equivalent Course(s): SIGN 26031, ENGL 26030, HIST 25424

BPRO 26050. Memory, Commemoration & Mourning. 100 Units.
This course focuses on the manner in which we make use of the past, the personal past, the collective past, and the place of social and historical change in retelling and rewriting life-history and history. The course begins with a discussion of memory, conceptions of the personal and historic past, and such related issues as nostalgia, mourning, and the significance of commemoration in monument and ritual. These issues are explored in a number of topics such as twentieth-century war memorials, high school and college reunions, and the Holocaust and its representation in contemporary European society.
Instructor(s): Staff Terms Offered: Not offered in 2021-2022
Equivalent Course(s): RLST 28102, FNDL 23312, AASR 30001, CHDV 27102, PSYC 25450

BPRO 26300. Globalization: History and Theory. 100 Units.
This course makes sense of globalization as a historical phenomenon focusing primarily on the long twentieth century, but with a look back into the "deep history" of the making of the contemporary world. While the course has a theoretical bent, it should be taken as an introduction into modern history. It has three goals in particular:
(1) It introduces the main concepts and theories of globalization. (2) It explores key moments, processes, and events in the annals of globalization. (3) It highlights the nature of contentions over the terms of global order.
Instructor(s): M. Geyer, Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third-year standing
Equivalent Course(s): HIST 29901

BPRO 26400. Movies and Madness. 100 Units.
We propose to investigate representations of madness in fictional, documentary, and experimental film. We divide the topic this way to emphasize the different dimensions of cinematic address to questions of mental illness, and the ways that film genres imply distinct formal and epistemological conventions for the representation of insanity. Documentary ranges from instructional and neutral reportage, to polemical, essayistic interventions in the politics of psychiatric and the asylum, the actual conditions of mental illness in real historical moments. Documentary also includes the tendency in new media for "the mad" to represent themselves in a variety of media. With experimental film, our aim will be to explore the ways that the cinematic medium can simulate experiences of mania, delirium, hallucination, obsession, depression, etc., inserting the spectator into the subject position of madness. We will explore the ways that film techniques such as shot-matching, voice-over, montage, and special effects of audio-visual manipulation function to convey dream sequences, altered states of consciousness, ideational or perceptual paradoxes, and extreme emotional states. Finally, narrative film we think of as potentially synthesizing these two strands of cinematic practice, weaving representations of actual, possible, or probable situations with the special effects of mad subjectivity. Our emphasis with narrative film will be to focus-not simply on the mentally ill subject as hero.
Instructor(s): W. J. T. Mitchell, J. Hoffman Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): ARTH 26905, ENGL 28703, ARTH 36905, ARTV 26411, CMST 25550, ENGL 38703, CMST 35550, ARTV 36411

BPRO 26500. Picturing Words/Writing Images (Studio) 100 Units.
What is the relationship between reading and looking? Images in mind and images on paper-words in mind and on the page-we will explore the intersection of these different ways to think, read, and look, as we make poems, drawings, paintings, etc., in class. We will investigate the problem of representing language as it is expressed in
the work produced in class. Studying works by contemporary visual artists like Jenny Holzer and Ann Hamilton, and practicing poets such as Susan Howe and Tom Phillips will inform our investigation. The course will feature visits to our studio by contemporary poets and visual artists, who will provide critiques of student work and discussion of their own ongoing projects. These visitors will help to frame our artistic and literary practice within the ongoing conversation between word and image in modern culture. We will ask, what are the cognitive, phenomenological, social, and aesthetic consequences of foregrounding the pictorial/visual aspect of alphabetical characters? (C, H)

Instructor(s): J. Stockholder, S. Reddy Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing. Previous experience in an arts studio or creative writing course recommended, but not required.
Equivalent Course(s): CRWR 46341, ARTV 36901, ARTV 26901, ENGL 34319, CRWR 26341, ENGL 24319

BPRO 26600. Antonioni’s Films: Reality and Ambiguity. 100 Units.

In this in-depth study of several Antonioni films, our eye is on understanding his view of reality and the elements of ambiguity that pervade all of his films. Together, as a film scholar and physicist, we bring out these aspects of his work together with his unique cinematic contributions. This course introduces students to this poet of the cinema and the relevance of Antonioni’s themes to their own studies and their own lives.

Instructor(s): Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third or fourth-year standing
Equivalent Course(s): HUMA 26600, ARTH 28904, CMST 26801

BPRO 26700. Mythical History, Paradigmatic Figures: Caesar, Augustus, Charlemagne, Napoleon. 100 Units.

What is the process by which some historical figures take on mythical proportions? This course examines four case studies of conquerors who attained sovereign power in times of war (conquest, civil war, revolution), who had a foundational role in empire-building, and who consciously strove to link themselves to the divine and transcendent. Their immense but ambiguous legacies persist to this day. Although each is distinct as a historical individual, taken together they merge to form a paradigm of the exceptional leader of epic proportions. Each models himself on exemplary predecessors: each invokes and reinvents myths of origin and projects himself as a model for the future. Basic themes entail mythic history, empire, the exceptional figure, modernity’s fascination with antiquity, and the paradox of the imitability of the inimitable.

Instructor(s): M. Lowrie, R. Morrissey Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): CLCV 26713, FREN 26701, FREN 36701, SCTR 30411, CLAS 36713, FNCL 22912

BPRO 26750. Anxiety. 100 Units.

The phenomenon of anxiety emerged as one of the leading psychological disorders of the 20th and 21st centuries. Worrying ourselves into the realm of the pathological, we now have a requisite measure of anxiety for every prescribed stage of life. But why are we so anxious? Considering its prevalence in everyday life, the concept and theories of anxiety have been employed surprisingly seldom as a way into film, fiction, and art. In this course we examine the modern origin of contemporary discourses specific to anxiety and their unique manifestation in cultural artifacts. To understand the complex of anxiety in the so-called Western world, we rely on the theories of Søren Kierkegaard, Martin Heidegger, Sigmund Freud, Jacques Lacan, and Alenka Zupančič; fiction by Stoker, Schnitzler, Kafka, and Sebald; and film by Haneke, Kubrick, Ophuls, and Hitchcock. We will also have guest speakers from the fields of clinical psychiatry, geriatric medicine, philosophy, and comparative anthropology.

Instructor(s): M. Sternstein, A. Flannery Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Note(s): English majors: This course fulfills the Theory (H) distribution requirement.
Equivalent Course(s): MAPH 36750, GRMN 26715, ENGL 24260

BPRO 26800. How Literature Thinks: Contemporary Writers on Big Problems. 100 Units.

Big Problems have affective dimensions that not only complicate our thinking about issues like climate change or income inequality but pose “big problems” of their own: apathy, depression, boredom, paranoia. Literature invites us to reflect on these affective states and their social repercussions while also expanding the forms of feeling and knowing available to us. How do novels, poems, and memoirs explore the connections between emotion, understanding, and individual and collective action? Can criticism help us to see those connections? In this course, we will read the work of contemporary writers who explore a variety of pressing questions. Authors will include celebrated novelists and poets visiting the University, University of Chicago faculty in Creative Writing, and award-winning local authors. These writers will visit our class to share their views on how literature “thinks” in generative ways. Readings of contemporary novels, poetry, and nonfiction will be supplemented by theoretical texts that illuminate the affective, epistemological, and political dimensions of artistic responses to social crises. Assignments will include both creative and critical writing exercises, attendance at literary events, and a final (creative, critical, or creative/critical hybrid) project. No prior creative writing experience is required.

Instructor(s): S. Reddy, S. Ngai Terms Offered: Not offered in 2021-2022
Prerequisite(s): PQ: Third- or fourth-year standing
Equivalent Course(s): ENGL 28660, ENGL 38660

BPRO 26880. Border Crossings: Reading and Making the Literature of Migration. 100 Units.

In this Big Problems course on the literature of migration, students will analyze and create narratives about human beings moving across time and place, crossing borders both literal and metaphorical. We will consider
the lives, perspectives, and voices of characters who are forged and re-forged by their cultural, linguistic, and familial contexts. Migration itself represents a physical relocation; writing about migration both expresses and requires an intellectual relocation. We will examine carefully questions of audience: for whom does the literature of migration exist, other members of migrant communities? Hosts? Both? What are the motivations for the work; does the literature of migration accelerate a sense of belonging, issue challenges, create a new form of hybrid identity? Does it keep a record that’s retrospective about the past, and/or contain in its very language the present tense? What does it ask or suggest about our future? This is a multi-genre course, in which we will read fiction, poetry, and non-fiction about migration. Students will write both critical and creative projects, and research will be a key component of the course, making use of nearby archives and guest visits. Weekly readings include texts from Euripides’ Medea to Wilkerson’s The Warmth of Other Suns, and will guide our consideration not only of how to read the literature of migration, but also of how to tie research into critical and creative projects on migration.

Instructor(s): M. Ellmann, R. DeWoskin Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): JWSC 26880, ENGL 26880, ENGL 46880

BPRO 27000. Perspectives on Imaging. 100 Units.
Taught by an imaging scientist and an art historian, this course explores scientific, artistic, and cultural aspects of imaging from the earliest attempts to enhance and capture visual stimuli through the emergence of virtual reality systems in the late twentieth century. Topics include the development of early optical instruments (e.g., microscopes, telescopes), the invention of linear perspective, the discovery of means to visualize the invisible within the body, and the recent emergence of new media. We also consider the problem of instrumentally mediated seeing in the arts and sciences and its social implications for our image-saturated contemporary world.

Instructor(s): P. La Riviere, Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third or fourth-year standing
Note(s): This course does not meet requirements for the biological sciences major.
Equivalent Course(s): HHPS 24801, ARTH 36900, CMST 27300, BIOS 02927, CMST 37300, ARTH 26900

BPRO 27600. Creation and Creativity. 100 Units.
This seminar explores several creation stories from anthropological, literary, philosophical, and psychological perspectives. We will begin with the stories of cosmic creation (e.g., the Bhagavad Gita, the Maya’s Popol Vuh, and other sources, including Native American ones). We will explore the ways cosmic creation has been imagined in world culture. We also delineate human literary creativity and ask about the relationship between individual creativity and the cultural myths of creation. We consider at least one modern theory of the beginning of the universe.

Instructor(s): Staff Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third or fourth-year standing
Equivalent Course(s): ANTH 27610

BPRO 27800. Science and Christianity. 100 Units.
Both Christianity and science have had a critical impact on the development of Western society. Can they continue to flourish, enriching each other, or are they fundamentally at odds and in competition? This seminar will examine the major points of potential tension and synergy between science and Christianity, with the goal of open discussion and an eye on helping students develop their own ideas. We will consider themes such as evolution, extraterrestrial intelligence, consciousness, and particulars of the Christian faith.

Instructor(s): D. Abbot, D. Fabrycky, L. Schweitz. Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): RLST 27801

BPRO 27900. Climate Change in Media and Design. 100 Units.
If meteorological data and models show us that climate change is real, art and literature explore what it means for our collective human life. This is the premise of many recent films, novels, and artworks that ask how a changing climate will affect human society. In this course, we will examine the aesthetics of climate change across media, in order to understand the accounts of the beginning in Genesis, Hesiod’s Theogony, Ovid’s Metamorphoses, Bhagavad Gita, the Maya’s Popol Vuh, and other sources, including Native American ones. We will examine the ways in which climate change is addressed in media, and the recent emergence of new media. We also consider the problem of instrumentally mediated seeing in the arts and sciences and its social implications for our image-saturated contemporary world.

Instructor(s): P. Jagoda, B. Morgan Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): CMST 27814, ENGL 27904, MAAD 21900, ENST 27900
BPRO 28700. Alternate Reality Games: Theory and Production. 100 Units.
Games are one of the most prominent and influential media of our time. This experimental course explores the emerging genre of "alternate reality" or "transmedia" gaming. Throughout the quarter, we will approach new media theory through the history, aesthetics, and design of transmedia games. These games build on the narrative strategies of novels, the performative role-playing of theater, the branching techniques of electronic literature, the procedural qualities of video games, and the team dynamics of sports. Beyond the subject matter, students will design modules of an Alternate Reality Game in small groups. Students need not have literature, the procedural qualities of video games, and the team dynamics of sports. Beyond the subject matter, students will design modules of an Alternate Reality Game in small groups.

BPRO 28000. Terror, Religion, and Aesthetics. 100 Units.
Through our contemporary experiences of terrorist acts, we apprehend the no-citizens' land of life without a social contract, of the violent "state of nature" among people. In varied genres (e.g., poems, plays, novels, memoirs, essays), we engage with the transformative powers of diverse aesthetics (e.g., catharsis, the sublime, theatre of cruelty, realism, fable, satire) and of religious faiths (e.g., deism, Hinduism, Judaism, Islam, Sufism, Buddhism) to counteract terror and redeplore our civil status in society.

Instructor(s): M. Browning, Staff
Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): HMRT 28602, RLST 23401

BPRO 28100. What is Enlightenment? 100 Units.
What is enlightenment? How does one become enlightened, and who is enlightened? In Euro-American civilization, the eighteenth-century Age of Enlightenment championed the powers of human reason against religion and superstition to achieve scientific progress. Buddhism in the nineteenth century was represented by the heirs of Enlightenment as a religion for the Enlightenment to the point of not being a religion at all. Both traditions offer pathways to freedom (or liberation?) that draw on our rational capabilities, and both sponsor the production of knowledge that re-visions our place in the world. But they seem to be opposed: how could reason reject "religious" beliefs but also take part in "religious" traditions that aim to bring certain kinds of persons into being? We compare the mental models, discourses, methods of analysis, world-images, and practices of these traditions of enlightenment to assess the kinds of disciplines that their theoreticians and practitioners acquire and use.

Instructor(s): M. Browning, Staff
Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): HMRT 28602, RLST 23403, SALC 27601

BPRO 28500. Sex and Ethics. 100 Units.
Sex is a big problem. How do we think about sex in proximity to considering the ethics of risk, harm, and the potential for good? Developing an account specifically of an ethics of sex requires thinking about the place of sex and sexual vulnerability in social life with an eye toward understanding what's good and what might count as abuses, violations, disruptions, or deprivations of specifically good things about sex. In popular discussion, for example, "consent" often demarcates ethically good sex from bad sex. This course inquires whether consent is an adequate metric for sexual ethics; if it is necessary or sufficient; if certain factors (e.g., age, gender, violence) vitiate its normative force; and whether its legal definition conflicts, coheres with, or contributes to its general cultural reception. These issues require us to think about the ways people do, do not, and cannot know what they're doing in sex, and complicate the aspiration to have an ethics in proximity to sex. This year's version of the course focuses on political theory/policy/popular scandal in relation to aesthetics and sex theory archives. We talk about sex in proximity to modes of comportment in love, scandal, prostitution, stranger intimacy, political freedom and discipline, impersonality, and experimentality.

Instructor(s): L. Berlant, Staff
Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): HUMA 28109, RLST 23403, SALC 27601

BPRO 28600. Health Care and the Limits of State Action. 100 Units.
In a time of great human mobility and weakening state frontiers, epidemic disease is able to travel fast and far, mutate in response to treatment, and defy the institutions invented to keep it under control: quarantine, the cordon sanitaire, immunization, and the management of populations. Public health services in many countries find themselves at a loss in dealing with these outbreaks of disease, a deficiency to which NGOs emerge as a response (an imperfect one to be sure). Through a series of readings in anthropology, sociology, ethics, medicine, and political science, we will attempt to reach an understanding of this crisis of both epidemiological technique and state legitimacy, and to sketch out options.

Instructor(s): H. Saussy, M. Schwartz
Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third- or fourth-year standing
This course does not meet requirements for the biological sciences major.
Equivalent Course(s): CMLT 28900, BIOS 29323, HMRT 28602
Equivalent Course(s): ARTV 30700, CMST 35954, CMST 25954, TAPS 28466, ARTV 20700, MAAD 20700, ENGL 25970, ENGL 32314

**BPRO 28800. From Fossils to Fermi’s Paradox: Origin and Evolution of Intelligent Life. 100 Units.**
The course approaches Fermi’s question, “Are we alone in the universe?,” in the light of recent evidence primarily from three fields: the history and evolution of life on Earth (paleontology), the meaning and evolution of complex signaling and intelligence (cognitive science), and the distribution, composition and conditions on planets and exoplanets (astronomy). We also review the history and parameters governing extrasolar detection and signaling. The aim of the course is to assess the interplay between convergence and contingency in evolution, the selective advantage of intelligence, and the existence and nature of life elsewhere in the universe - in order to better understand the meaning of human existence.
Instructor(s): P. Sereno; L. Rogers; S. London Terms Offered: Not offered in 2021-2022
Prerequisite(s): Third or fourth-year standing. This course does not meet the requirements of the Biological Sciences major.
Equivalent Course(s): BIOS 13142, PSYC 28810, ASTR 18700

**BPRO 29000. Energy and Energy Policy. 100 Units.**
This course shows how scientific constraints affect economic and other policy decisions regarding energy, what energy-based issues confront our society, how we may address them through both policy and scientific study, and how the policy and scientific aspects can and should interact. We address specific technologies, both those now in use and those under development, and the policy questions associated with each, as well as with more overarching aspects of energy policy that may affect several, perhaps many, technologies.
Instructor(s): S. Berry, G. Tolley Terms Offered: Not offered in 2021-2022
Prerequisite(s): PQ: Third- or fourth-year standing. For ECON majors who want ECON credit for this course (ECON 26800): PQ is ECON 20100.
Equivalent Course(s): ECON 26800, CHSS 37502, ENST 29000, PPHA 39201, PSMS 39000, PBPL 29000

**BPRO 29200. Global Energy & Climate Challenge: Economics, Science & Policy. 100 Units.**
The global energy and climate challenge is one of the most important and urgent problems society faces. Progress requires identifying approaches to ensure people have access to the inexpensive and reliable energy critical for human development, without causing disruptive climate change or unduly compromising health and the environment. The course pairs technical and economic analysis to develop an understanding of policy challenges in this area. Lecture topics will include the past, present, and future of energy supply and demand, global climate change, air pollution and its health consequences, selected energy technologies such as solar photovoltaics, nuclear power, unconventional oil and gas, and an analysis of theoretical and practical policy solutions in developed and emerging economies.
Instructor(s): M. Greenstone, J. Deutch Terms Offered: Not offered in 2021-2022
Prerequisite(s): PQ: Third- or fourth-year standing in the College.
Equivalent Course(s): PBPL 29200, PPHA 39905, ENST 28220, ECON 26730