

┘ Deep Springs College Course Catalogue

Fall 2017-Spring 2023

2017-2018	3
Term 1	3
Terms 2-3	4
Terms 4-5	8
Term 6	12
2018-2019	14
Term 1	14
Terms 2-3	15
Terms 4-5	18
Term 6	23
2019-2020	26
Term 1	26
Terms 2-3	27
Terms 4-5	31
Term 6	35
2020-2021	37
Term 1	37
Terms 2-3	38
Term 4	42
Terms 5-6	44
Term 5 only	49
Term 6 only	50
2021-2022	51

Term 1	51
Terms 2-3	52
Terms 4-5	57
Term 5 only	61
Term 6	62
2022-2023	65
Term 1	65
Terms 2-3	67
Terms 4-5	73

2017-2018

Term 1

Value and Community: Living Together in a Divided World

Walt Hunter and Katie Peterson; Sarah Stickney (writing instructor), David Neidorf (Week 7 Instructor)

This course explores the creation of values and the work that values do within communities. Does value come from individuals, or from a transcendental authorizing source? Can a value ever simply be based on personal opinion, or is a community necessarily involved? Do communities form around shared values, or do they function to hold competing values in productive suspension? How does the concept of value manifest itself differently in art, in morality, in politics, and in economics? What is the difference between a fact and a value? When our values are under attack, how do we best respond? What is the relationship between values and judgment, and between values and good judgment?

We have selected the diverse set of readings in this course to reflect our sense that value emerges from many different genres of writing and thinking. At the center of the course is the liberal tradition of thinking about value, from Hume through Arendt. We will begin with an investigation of the university as a site of value creation. Then we will turn to the relation between labor and value, as theorized by Marx, Weber, and Federici. We will also follow Kant and Brecht in exploring how theories of aesthetic judgment might provide the foundation for political community.

Terms 2-3

Drawing

Justin Kim

This is an introductory drawing course for students from a wide range of experience and backgrounds. For the first section of the course, students will be given assignments to help develop powers of perception and observation. Continuing in this mode of working directly from nature, students will begin building technical and formal skills in stages: line and contour, shape, value and tone, structure and composition, space, etc. Subjects for class and homework assignments will include the figure, still life, landscape or constructed installations. Materials used will include: pencil, charcoal, conte crayon, ink, collage and acrylic paint. For the final part of the course, students will design and execute individual projects based on previous assignments.

History and Future of Infectious Disease

Amity Wilczek

In this course, we will explore how the biology of diseases affects transmission and treatment. We will also discuss how knowledge of disease biology influences public health decisions. What has driven the success – and failure – of public health efforts. When has an advanced knowledge of a disease organism, an effective vaccine, a proven prevention strategy, or a successful treatment led to a major change in human health? Why, and in what circumstances, have such knowledge and advances proven insufficient? How do ecological processes of disease organisms and human behavior interact in the creation and cessation of epidemics? How do scientists collect and employ data to model disease dynamics, and how have these studies affected public health efforts?

To sum up in a single sentence, this course has the following objective:

To acquire a basic knowledge of the ways in which disease biology affects disease transmission and treatment, and to explore how this interplay in turn influences public health decisions.

Dostoevsky

David McNeill

Fyodor Dostoevsky is, as has often been noted, a paradoxical figure. His novels had a profound impact on 20th century religious thinking in both the Eastern Orthodox and the Roman Catholic traditions. Yet, Sartre and Camus are among the greatest atheistic thinkers of the 20th century who acknowledge the profound debt they owe to Dostoevsky. He has been called a “fanatical Greek-Orthodox Russian imperialist,” yet his writings evince a deep sympathy for Utopian Socialism. He is considered the *most* Russian of the great Russian authors (“too Russian” for Joseph Conrad, for example). Nonetheless,

his works are unsurpassed in their influence on world literature. Dostoevsky is not to everyone's taste. "(T)he way he has of wallowing in the tragic misadventures of human dignity" is, in Vladimir Nabokov's judgment, "difficult to admire." Others readers, of course, found admiration easy. E.M. Forster, for example, claimed that "(n)o English novelist has explored man's soul as deeply as Dostoevsky."

This class will be devoted to reading *The Double*, *Notes from Underground*, *The Possessed* and *The Brothers Karamazov*, and exploring and/or wallowing in the depths of some fairly unforgettable souls. Additional readings will be drawn from Mikhail Bakhtin, Nikolai Gogol, René Girard, and George Steiner.

Mathematics in Political Life

Amity Wilczek

This course will explore two different areas in which an understanding of mathematical reasoning and the language of mathematics has the potential to alter and enhance one's interaction with politically charged information and discourse. The first of these is the interpretation of (messy) quantitative information, and the second deals with social choice theory and its application to democratic voting systems. New scientific evidence appears every day in scholarly journals and the popular press, but how do scientists decide whether reported results are valid? How do journalists and their readers? Through this module, students will learn how to use quantitative reasoning to evaluate – and question – scientific results. Most interesting questions are asked in complex or interacting systems...how do we distinguish signal from noise, and how do we know which we are looking at? Motivating our discussion of assumptions and implementations of several statistical techniques, always, will be the general question: What does it mean to declare a result with certainty?

The Modern Essay

David Gorin

The Modern Essay is an introductory creative writing course on the art of the non-fiction essay. In it, students will learn how to craft compelling essays through close reading a wide variety of texts by some of the most accomplished non-fiction writers of our time (and a few from before our time). We will read these texts not in order to comment on them in writing—as one might in another kind of English class—but to glean from them the tools and strategies by which we might give power and precision to our own non-fiction writing. With such tools in hand, you will write and revise four essays of your own, each in a different subgenre. Ultimately, our aim will be to teach ourselves the techniques of astonishment: how to represent in prose real people, places, cultural objects, experiences and ideas such that they command attention and provoke the mind. Texts include readings from George Orwell,

Joan Didion, James Baldwin, David Foster Wallace, Anne Fadiman, John D'Agata, Leslie Jamison, John Jeremiah Sullivan, Jenny Zhang, Roland Barthes, and many others.

Plato's *Republic*

David McNeill

This course will be devoted to a close reading of Plato's *Republic*, often considered to be the single most influential work in the European philosophic tradition. The *Republic* begins as an inquiry about what justice is, but by the end of the first book that question has been broadened to, and to some degree displaced by, a question about whether a just life or an unjust life is the better and happier life. Thus first and foremost among the questions the work addresses is what constitutes human happiness. In our reading of *The Republic*, however, we will also address question about the scope of human knowledge, the aspiration toward a perfectly just society, the relation between the individual good and the common good, the relation between individual psychology and social psychology, and the fundamental nature of reality (among others!).

In addition to the *Republic*, we will read selected passages from Aristophanes *Lysistrata*, Herodotus' *Histories*, and Leo Strauss' treatment of Xenophon's *Hiero* in *On Tyranny*

Development

Jenny Smith

Politicians, professors, and well-meaning NGOs habitually divide the world into two spheres: the "developed" and "less developed" (or, more optimistically, "developing") worlds. Broadly, "developed" countries are understood to be prosperous, stable, and free, while their "developing" counterparts lack those attributes, or are in the process of acquiring them. We will begin this course by excavating this definition of "development." What attributes best capture what we mean when we describe a country as "developed" – and how, if at all, can they be measured? Next, we will review what the various social sciences have to teach about what makes some parts of the world more developed than others. Does the explanation for some countries' comparative underdevelopment lie in economics, politics, history, culture, or something else entirely? What approaches have been adopted in the attempt to develop the less-developed world, and with what success? With our background in development studies thus established, the final weeks of the course will take on a practice-oriented flavor as we investigate the work of major development organizations. **Texts:** Moyo, *Dead Aid*, and additional readings by Acemoglu & Robinson, Banerjee & Duflo, Bhagwati, Easterly, Escobar, Esteva, Evans, Ferguson, Huntington, Illich, Lipset, McKibben, Przeworski, Rodrik, Rostow, Sachs, Said, Sen, Stiglitz, Yunus, and others.

Marx, Weber, Durkheim

Jenny Smith

This course is an introduction to three foundational thinkers in the social sciences: the Germans Karl Marx (1818-1883) and Max Weber (1864-1920), and the Frenchman Émile Durkheim (1858-1917). Marx, Weber, and Durkheim lived in societies that were becoming recognizably “modern” in a sense familiar to us today, and they are remembered for offering the first great interpretations of central features of that society: the rise of industrial capitalism, the growth of public and private bureaucracy, and the challenges facing individuals in a “disenchanted,” radically restructured social world. These three writers set out not only to portray or to react to modern society, but also to understand it scientifically – hence sociology’s traditional claim on these three as the founders of that discipline. The primary focus of this course will be reading and analyzing these authors’ works in their original form. The course has been designed to satisfy the college’s criteria for writing-intensive courses. **Texts:** Tucker, ed., *The Marx-Engels Reader*; Weber, *The Protestant Ethic and the Spirit of Capitalism*; Gerth and Mills, eds., *From Max Weber*; Durkheim, *The Division of Labor in Society*; and additional readings by Durkheim, H. Becker, Elster, Engels, Gramsci, Hegel, Heilbroner, J. Herbst, Lenin, Przeworski, Ricardo, Roemer, J. Scott, A. Smith, E.P. Thompson, and de Tocqueville

Public Speaking

Justin Kim

Contact instructor directly for description

Horsemanship

Tim Gipson

Contact instructor directly for description

Terms 4-5

California Politics: Progress/Backlash, Racial Identity, and the Golden State in the National Imagination

Felicia Wong

This class will explore California's development, and its implication for America's, through a variety of lenses: policy, history, economy, sociology, culture. It is mostly a politics class, but we'll read somewhat widely, from think tank reports to magazine pieces to classic literature. We will begin with early 20th century California progressivism – political leadership, labor organizing and community organizing in the face of monopolies buying land and monopolizing agriculture. We'll study the state's elected leaders – Pat Brown, Richard Nixon, Ronald Reagan, Jerry Brown – as they harnessed mid-century movement passions, conservative and progressive, popularizing opposing visions and pushing them to the center of national politics. And we will look at the state's class and race identities – white working class, African American, Asian-American, Latino – have developed over the last century, shaping political beliefs, movements, and outcomes.

This is all prelude to now. How, out of this chaotic history, in some ways a catalogue of extremes, did we end up with the kind of California exceptionalism that we have today? Exactly what kind of California exceptionalism *do* we see today? What lessons can we learn from California not just for the state, but also for the nation's politics: the Republican and Democratic parties, the progressive and conservative movements, and the ways in which the 2020 presidential campaign – which, for good and for ill, will shape both policy priorities and our worldviews – will be fought?

The American Financial System

Brian Judge

This course examines the history, theory, and operation of the American Financial System. Key questions we will consider include: What is money? What is finance? How did the financial system evolve historically in the American context? What are some of its theoretical valences? How does the financial system operate in practice? To answer these questions, we will first look to histories and then canonical theorizations before turning to the operation of money and the nuts-and-bolts of American financial markets. Finally, we examine the global financial crisis of 2008 and its aftermath in light of these considerations. The goal of this course is for students to develop a basic understanding of the historical development, theoretical underpinnings, and actual practice of the American financial system.

Arendt

David McNeill

Hannah Arendt is one of the most distinctive and influential thinkers of the 20th century. Even before recent political developments brought renewed attention to her 1951 work, *The Origins of Totalitarianism*, recognition of the significance of Arendt's political thought underwent a significant resurgence in recent years and is now more prominent in contemporary theoretical debates than it was when she was alive. While it is often said that Arendt's historical, philosophical and political analyses are hard to categorize, that seems in part due to the fact that the term that might seem the most appropriate way to characterize her thinking, as "philosophical anthropology," has largely fallen out of theoretical fashion—in part due to the influence of Arendt's early teacher, Martin Heidegger. But it is nonetheless clear that Arendt's broad area of inquiry was, as stated in the title of her most famous work, the human condition. Even more precisely, Arendt was engaged throughout her career in posing and reposing questions about the relation between philosophy and politics, and the competing claims of a life of intellectual inquiry and a life of political engagement as the most fully realized human life.

Auto Mechanics

Padraic MacLeish

Contact instructor directly for description

Agrarian Politics

Jennifer Smith

For most of human history, the vast majority of human beings on the planet have devoted much of their daily endeavor to the production of food. The transition from agrarian societies to societies based on modern manufacturing and services has been wrenching and difficult, not to mention incomplete – and the same might be said of the transition *to* agrarianism in the first place. This course will attempt both a localized and a synoptic view of these developments, taking as its unifying theme the intrusions of agrarianism into politics (and/or of politics into agrarianism) in a variety of forms. We will read about many different agricultural products; societies both agrarian, transitioning, and modern; and a variety of political movements, claims, and conflicts surrounding food and its production. In the second half of the course, students will identify and pursue their own areas of focus within the theme of agrarian politics. **Texts:** Scott, *Against the Grain*; Cronon, *Changes in the Land*; Mintz, *Sweetness and Power*; Pachirat, *Every Twelve Seconds*; plus readings by Diamond, Ellickson, Elvin, Koepfel, McCann, McKibben, Melville, Ostrom, Smil, and others selected by the class.

Power

Jennifer Smith

What is power? What does it mean to possess power, and to exercise it over or against others? What are the resources and conditions that make people and groups powerful or powerless, and how do power relations condition interactions between persons? How can we study the abstraction “power” as a thing in the world, in order to know its ways? In this course, we will undertake a broad exploration of the theme of power, seeking to answer these and other questions about power’s nature, scope, and operation. We will read analyses of power and related concepts from political and social theorists, and we will also read a diverse collection of studies of power as a thing used/possessed in the world by real individuals and groups. **Texts:** Gaventa, *Power and Powerlessness*; Foucault, *Discipline and Punish*; Koestler, *Darkness at Noon*; Wedeen, *Ambiguities of Domination*; Willis, *Learning to Labor*; and additional readings by authors including Arendt, Bourdieu, Caro, Dahl, Havel, Hobbes, Lukes, Machiavelli, Marx, Mearsheimer, Milgram, Neustadt, Nye, Orwell, and Weber.

Documentary Filmmaking Workshop

Jonathan Halperin

A workshop in documentary production – from blank page to finished film, a hands-on course, a primer in craft. While we will discuss the basic technical aspects of camera, lighting and editing, the class will concentrate on the principals of documentary storytelling – how to tell nonfiction stories with moving images and sound. Each student will produce a series of projects that will teach, through practice, the fundamentals of documentary storytelling. The final project will be a 5-minute, festivalquality documentary. Together in class we will analyze these projects for their conceptual, aesthetic and technical strengths and weaknesses. These critiques are the heart of the class. As a basis for learning the craft of documentary storytelling, we will also analyze, as a group, documentary classics. In-class discussion – breaking films apart into their components – will be how we will learn the craft.

Nietzsche

David McNeill

This course will be devoted to a close study of Nietzsche’s 1886 *Beyond Good and Evil* and his 1887 *On the Genealogy of Morality*, two of Nietzsche’s most influential and most difficult works. Our primary task will be interpreting these two works as philosophic and literary wholes. This will involve trying to understand the complex of concepts surrounding and informing Nietzsche’s conception of the will: his conception of drive and affect; his account of “bad conscience” and of the internalization of instinct as constitutive of human interiority; his account of master and slave moralities, and indeed

of morality as such; his accounts of representation, interpretation, and the creation of value. We will begin by looking at Nietzsche's early reflections on the relation between morality and history in his *On the Uses and Disadvantages of History for Life*. This will provide a background against which to understand aspects of the account of human temporality, morality and psychology Nietzsche offers in his mature works. Additional readings will be drawn from the *Gay Science*, *Twilight of the Idols*, *Ecce Homo* and Nietzsche's *Nachlass*.

Tectonics and Sedimentation in Deep Springs Valley

Meredith Bush

This course is an introduction to structural and sedimentary geology, considering the Deep Springs Valley in terms of tectonic setting, subsidence mechanisms, large-scale stratigraphic architecture, paleogeography and basin resources. We will develop a theoretical and practical understanding of how sedimentary basins form, and how they can be studied to determine tectonic, climatic, and eustatic controls on subsidence, surficial processes, basin hydrology, and infilling through classroom work, laboratories, and field work. Students will consider gradualism versus catastrophism in interpreting the geologic record; the occurrence, exploration, and development of natural resources including minerals, hydrocarbons, and water; geologic time and the Anthropocene. Assignments include weekly responses, field trip presentations, a guidebook to the geology of Deep Springs Valley, and an original research proposal. **Texts include:** John McPhee – Basin and Range; Readings from open-access geology textbooks; Scientific articles including Lee 2001 on the Deep Springs Fault, Jones 1965 on the hydrology of Deep Springs Valley, Lustig 1965 on sedimentation in Deep Springs Valley. **Instructor:** Meredith Bush. **Credit:** 4 semester hours. Spring 2018.

Public Speaking

Jennifer Smith & Brian Judge

Contact instructor directly for description

Term 6

The Civil Rights Movement Revisited

Ross Peterson

The course is designed to establish a deeper understanding of the goals and achievements of the Civil Rights Movement and then determine if those goals were achieved. Contemporary literature and essays were combined with writings of the Civil Rights period with contemporary texts. Many of James Baldwin's essays were used as launching points for discussion. The class gave students an opportunity to gain a greater knowledge of why "rights" are a work in progress and why a movement is never finished. The human rights aspects of the movement and the class aspects were also reviewed. There are two required short papers required for this seven-week course. The first is a review of a reaction to the required reading in the first half of the course. The second paper asks the student to compose a Baldwinian type essay that explains a current relevant issue in the area of racism, human rights, or discrimination.

Fractals and Chaos in Natural Systems

Sarah Tebbens

The field of fractals is a relatively new branch of science fathered by Benoit Mandelbrot in the 1980s. Fractals are patterns that are scale invariant, so the same pattern repeats at many scales. Chaos describes processes that often give rise to fractal patterns. We'll explore how fractal shapes are constructed. We'll consider applications from geology to weather. We'll examine models that give rise to fractal and chaotic patterns and power law scaling such as cellular automata, especially self-organized criticality. We'll finish with some popular topics such as fractal image compression and Conway's Game of Life. Students will each complete a research project on a data set of their choice that applies the methods and concepts discussed in class.

Introduction to Creative Writing

Tim Hunt

This course, primarily through workshop discussions and critique of student work, introduces students to the dynamics of imaginative (as distinct from analytical) thought and explores how associative processes engaged through writing can enable (for the writer) and elicit (for the reader) perceptual discovery and non-linear (but not random) reflection. Revised (and re-revised) work from the workshop sessions become the basis for a final portfolio of work, which includes, as well, an analytical self-assessment of the student's writing identity, writing procedures, and future writing goals.

Roman Roots**David Neidorf***Contact instructor directly for description***The Beat Generation****Tim Hunt**

This course examines four major works by four central Beat Generation writers: Allen Ginsberg's *Howl & Other Poems*, Jack Kerouac's *Visions of Cody*, William Burroughs' *Naked Lunch*, and Gary Snyder's *Myth & Texts* along with Joyce Johnson's *Minor Characters*, a memoir of the Beat era and Beat scene, that contextualizes the production of Beat literature and problematizes its reception. The course, a small group discussion emphasizing literary analysis and literary history, requires several analytical papers.

2018-2019

Term 1

Becoming Who You Are: Human Being and Citizen Being (Social Science, Literature, Philosophy)

Sarah Stickney, Katie Peterson, David Neidorf

This course will cultivate the art of patient, close reading. We emphasize reading as a process that involves the initial, surface level grasp of a text, and a closer investigation of that text through re-reading, note-taking, and discussion. We will read widely in different genres in order to examine and challenge the ways of reading present in different kinds of text, including nonfiction, fiction, poetry, and philosophy. Students will learn to acknowledge the different forms of self-knowledge and cultural knowledge present in different genres and will be asked to consider equally the value of such forms.

This is a seminar class; the work of the class is to create an intellectual conversation with vital stakes and democratic participation. You are asked, in this course, to read the selections for class at least twice, to engage with the text in all the ways that you see fit, and to show up for class with genuine questions about the material. You are also asked to participate not simply as an individual with singular interests but as a member of a community, interested in engaging with your peers, listening to them, encouraging them, and furthering their aims regarding the material. This may feel confusing and demanding at once, but we urge you to keep reading, and re-reading, using the reading and your facility with it to make this small community this summer a good one.

We all need to write about the books in order to understand them and have interesting thoughts about them. We want you to write this summer not simply to develop your skills in critical writing (though we do want that!) but also to experience your thinking in a more intense and vivid form than you could by simply talking.

Terms 2-3

St. Augustine's *Confessions*

David McNeill

This course was devoted to a close reading of Augustine's *Confessions*, perhaps the most influential work in the Christian theological tradition. The *Confessions* is a perplexing text, at once a prayerful meditation addressed to a merciful god, a fictionalized autobiography of Augustine's conversion to Christianity, and a philosophic and theological meditation on time, language and self-consciousness. It has been both credited and blamed as the most significant text in the transition from the ancient conception of the self to a modern conception of individual subjectivity. It is, moreover, a work that continued to exert a direct influence on European philosophy and theology. In this course, students worked from the hypothesis that the perplexing character of Augustine's text is not accidental but intentional, and that the questions it raises about the relation between philosophy and theology, rhetoric and argument, fiction and autobiography are central to something Augustine wants to teach us, his readers, about the connection between reading well, thinking well and the divine.

Aristotle's *Nicomachean Ethics*

David McNeill

This course was primarily devoted to a careful reading of Aristotle's *Nicomachean Ethics*, a work that first appears as a manual for right living, but ultimately reveals itself as a guide to reflection on the problem of living well. In this work Aristotle addresses the question of what is the happiest or most fully realized human life and the book as a whole is structured by the competing claims of two apparently distinct kinds of human life: the life of ethical and political engagement and the life of theoretical inquiry. It is in exploring the tension between these competing claims that we will come to see the distinctive character of Aristotle's philosophical work in the *Ethics*.

Shakespeare and the Family

Sarah Stickney

This course looked at a set of Shakespeare plays in which the theme of family is particularly important. We examined the idea of nature, blood ties or the lack thereof, succession and ancestry, family as a bridge between the political world and the world of the private self, marriage, generation, betrayal, estrangement, and more.

Short Fiction
Sarah Stickney

This course began by reading some of the stories considered seminal to the American short story tradition with an eye to what might have made them canonical. However, students spent most of the course examining the ways in which contemporary fiction reacts to this tradition in its preoccupations and limitations. They considered the stories from a technical as well as a historical point of view: what kind of America do the stories create or suggest? How do they do it? The course was especially interested in the ways that writers from traditionally marginalized populations subvert, transform, and grapple with traditional elements of short-story writing such as plot, setting, and dialogue. The class included various craft-specific exercises, and will culminate with students completing a short story of their own. There were also two critical papers.

Euclid
Linda Wiener

This course considered the various strategies for constructing mathematical proofs, and pondered the beauty and elegance as well as the utility of geometry. The primary task was working through Book I of Euclid's Elements at the end of which is his proof of the Pythagorean Theorem. The course looked at other parts of the text dealing with circles, numbers, perfect solids, and other topics. It also looked at some non-Euclidean mathematics and what happens when a fundamental postulate of Euclid's is rejected and another put in its place. The class consisted of student demonstrations of propositions, wide ranging discussions, creating original proofs, and a final paper or project.

Field Biology
Linda Wiener

Careful observation of the natural world of plants, animals, and the physical environment allows us to learn about and belong in a deep way to the place we live. It provides a constant source of surprise and discovery as well as providing compelling evidence of the value of the natural world. Meticulous attention paid to the lives of plants and animals and the physical features of land and water have been the basis for great scientific discoveries as well as great artistic, literary and philosophical work. This course aimed at cultivating simultaneously a scientific and philosophical, perhaps even spiritual, relationship with nature, unique to each individual in the course.

Natural History of Islands and the Emergence of Evolutionary Theory

Amity Wilczek

This course explored the origins of the theory of evolution, addressing the questions of: where did this theory come from, and how did people view, understand, and interpret the diversity of creatures they encountered prior to the emergence of this theory in the middle of the nineteenth century? To engage with these questions, students explored the ecology of islands. They learned how the extraordinary organisms that are found on islands (pygmy elephants, giant goat-eating lizards, rattlesnakes without rattles) have led to the development not only of the theory of natural selection but also of island biology and biogeography as fields of evolutionary study.

Introductory Painting

Justin Kim

An introductory painting course – students are given a thorough background in fundamental technical skills and formal issues, then build on these skills while exploring a range of subjects including the figure, still life, landscape, portrait, narrative, memory and abstraction. Class assignments emphasize an awareness of “process” – how you go about solving problems / making a picture – and what it says about you: your strengths and weaknesses, what you like and dislike, what interests you, etc. Individual and group critiques of students’ work were held regularly. Students used this information to inform other assignments, culminating in individual bodies of work to be designed and executed at the end of the semester.

Terms 4-5

Phenomenology: Theory and Practice

Linda Wiener

We will read Maurice Merleau-Ponty's philosophical book *The Phenomenology of Perception* and consider several different examples of phenomenological science in detail. Merleau-Ponty argues for an understanding of the world that starts with a deep consideration of our original experience of our body, of time, and of events. Rather than subsume or dismiss sensual experience, he shows us how we can see it as originary of all our understanding of the world. He considers scientific results in the light of his investigations of our experience in the world and he advocates a non reductive science that can incorporate this approach. Concurrently, we will consider in some detail a few examples of phenomenological science including Ptolemy's account of the earth centered universe in which he seeks to "save the appearances" of the movement of the sun around the earth. We will study Goethe's experimentally derived theory of the prismatic colors from his book *The Theory of Colors* and read Isaac Newton's theory of the prismatic colors. We will do the experiments of both authors and look at Goethe's critique of Newton's methods and rhetoric. We will read some of Irwin Strauss' *Phenomenological psychology* in which he investigates the ways our physical body exists in the world and the effect of this on our psychological and moral understanding. Using all these texts and examples, I hope we can come to a more sophisticated understanding of the strengths and limitations of reductive science and what we can learn from a phenomenological approach.

Dante's Divine Comedy

Sarah Stickney

Hell! Heaven! The best of Italian poetry! Whether you like a good revenge drama, are hoping for an ecstatic vision in the afterlife, crave a course in poetic form, or wish to study a detailed record of the political history of Medieval Italy, the *Divine Comedy* is for you. In this close-reading course we will study *Inferno*, *Purgatorio*, and *Paradiso* with an eye to all the above concerns. Dante was the first major author to compose his work in Italian instead of Latin (a shocking innovation at the time), and thus he is credited with inventing written Italian. His language is dense, and this course will require stamina on the part of the students. Most readings will not be long, but they will entail patience and attention in order to yield fruit. We may occasionally supplement our reading with criticism, but we will mostly focus on Dante himself.

Poetry Workshop

Sarah Stickney

This poetry workshop will focus on the relationship between form and content in poetry. We will study many of the traditional forms of poetry as well as the ways that these forms have been upended, subverted, and generally dissolved. For instance, we will study the sonnet as rendered by Shakespeare, Wyatt, Yeats, etc. But we will also study looser, contemporary renderings of “sonnet” by John Berryman, Bruce Snider, Marie Ponsot, and others. One class per week will be devoted to reading poetry. We will read great poems and examine them through the lens of formal prosody as well as that of style, image, tone, rhythm, syntax, metaphor etc. The second class per week will be a workshop in which student poems will be read and discussed. The workshop assignments will be loosely based on the forms being studied. Each student should expect to have her/his poem workshopped once every two to three weeks.

Wittgenstein’s *Philosophic Investigations*

David McNeill

This course will be devoted to a close reading of Ludwig Wittgenstein’s posthumously published magnum opus, *Philosophical Investigations*. The *Investigations* is one of the two most influential philosophic texts of the 20th century (the other is Heidegger’s *Being and Time*). It is at the same time an extraordinarily controversial text within philosophy, since it explicitly disavows the idea that philosophy properly understood is an explanatory endeavor. Its point is rather, as Wittgenstein indicates at one point in the *Investigations*, ‘therapeutic’, and his method apparently points towards dissolving rather than solving philosophic problems. “Philosophy,” Wittgenstein writes, “is a struggle against the bewitchment of our understanding by the resources of our language” (PI, §109). This focus has often led critics (and some proponents) of Wittgenstein to attribute to him the view that philosophy is itself a kind of illness, and the only reason to engage in philosophy is, as it were, to get over it. This is, I believe, a profoundly mistaken understanding of Wittgenstein’s work. Instead, Wittgenstein contends that systematic or positive philosophy radically exemplifies a tendency in all human understanding to become misled or confused by our ways of talking about the world. In this approach, the *Investigations* has much more in common with some ancient philosophical approaches (Platonic, Aristotelian, Pyrrhonian) to the problematic status of *δόξα* (opinion) than it does to most modern philosophic texts. In renouncing explanation, Wittgenstein’s philosophy does not similar renounce insight or illumination.

Early Modern Political Philosophy

David McNeill

In classical political philosophy, the end or goal of a political community is the cultivation of moral or political excellence in human beings. Indeed, according to Aristotle only a community directed toward

this end is properly called a political community, and human beings are by nature political because it is only within the context of a political community that human beings can acquire the capacity to realize their specifically human nature. Modern political philosophy as such begins with a rejection of this account of the ends of political association and the vision of the nature of human beings inscribed within it.

The Contemporary Crisis of Liberalism

David Neidorf

We need an unnuanced and much too abstract starting point, so here it is: in this brief description, by “liberalism” I mean a form of social and political association that imperfectly embodies and takes its bearing from those old saws—respect for individual rights of property, association, and conscience, embedded in certain typical ideals; the rule of law, representative governance, political and the social equality, freedom of speech, separation of church and state, religious toleration.

These days every newspaper and journal deplores the “crisis of liberalism,” both in the corruption and cynicism of American political discourse and governance, and throughout much of the rest of the world as well. In the critical eyes of many people, the manifest and horrifying hypocrisies of every known liberal regime are reveal, in various and overlapping combinations, to show that liberalism itself is:

- (a) a legitimating narrative for a new way to exercise power by enlisting people in their own oppression,
- (b) hamstrung by its putative universality and the formalism and proceduralism that follow from it, therefore even in the best case unable to provide the fundamental experience of locally embedded and culturally distinct membership and community that’s so essential to human happiness, and even procedurally hostile to that need.
- (c) An ideological superstructure the may be analyzed into the necessary conditions of trans-national capital—and therefore ontologically recalcitrant to control by state regulation or through the cultivation of better social practices and sensibilities.
- (d) A thinly secularized disguise for Judeo-Christian values, which ought better to be (depending on who is talking) owned and imposed outright, or stamped out entirely and replaced with....

The problem, then, is what to make of this welter of indignations, cries of rage, and multiplying and sometimes contradictory critiques? Or perhaps more reasonably for a single class in the early years of college: how to learn how to make progress finding out what to make of it. It’s important, because the conclusions people draw from these critiques are widely different—e.g. fascism and anarchism, to name only two alternatives that stem from almost identical sets of complaints about liberalism.

Reimagining Education: Theory and Practice

Laura Nelson

This course will look to theoretical and philosophical writings on education from the twentieth century through the present. Reading across disciplines and fields, we will look at the ways that thinkers have articulated visions for what education could look like. What are the underlying assumptions in these texts? How do these ideas extend to larger visions about politics and society? How should schools or institutions be structured to reflect certain political and social visions? Who is education for? Alongside these theoretical and philosophical works, we will turn to alternatives and experiments in education, including (but not limited to) Highlander Folk School, Deep Springs, Black Mountain College, Citizenship Schools, Freedom Schools, free universities and liberation schools, drawing upon primary source material and secondary scholarship that contextualizes and interprets these projects. How and why were these spaces of learning formed? What were the most important ideas animating each of these experiments? What were their challenges or limitations? Moving between philosophical texts and experiments in education, we will think about the relationship between theory and practice, looking at how educators have imagined and sought to bring about myriad ways of learning and thinking together.

Celestial Navigation

Amity Wilczek

How can you locate yourself, within 1 mile, using only the tools of a sextant and watch? So many questions can be answered by a more complete knowledge of the sky...it is difficult to choose or even to know where to start. A few questions, which you might not even thought to have: Why is the sun highest in the sky on the summer solstice at this latitude, but not in the tropics? On what day is the sun highest in the tropics? Why is Polaris a good pole star now, treated almost as a fixed point in the sky, and why was it less good for the Greeks? What stars are most useful to navigate by, why, and in what circumstances? This is a hands-on, careful-looking, puzzle-solving course. We will learn how and why to use a sextant. A star chart. The moon as a time-telling device. In terms of reading, mostly we will work our way through the marvelous, richly-illustrated, and exercise-laden *History and Practice of Ancient Astronomy* by J. Evans, which extracts liberally from a broad variety of historical sources from around the world. We may also make use of a celestial navigation textbook as a reference, e.g. *Celestial Navigation* by Burch. I recommend *The Stars* by H.A. Rey to anyone and everyone...and we will definitely use it for this class.

Interpreting your observations, and interacting with the night sky most productively, will require a good deal of calculation and geometry. Not advanced math, but careful thinking and advanced visualization. Most of the work for this class will be practical, involving exercises and journaling and constructing models.

Theories of the Origin of the World and Living Things

Linda Wiener

The three main theories of how things came to be are that the world is all mechanical, a matter of chance and necessity; that there is a mind at work, a creator who fashioned things according to a plan; and a middle position that can take many forms, some of which are vitalism and structuralism. We will read three major ancient works that put forth these positions: Lucretius' great epic poem on pre-Socratic atomic theory *On Nature*, sometimes called *The Nature of Things*, Plato's *Timaeus*, and Aristotle's *Physics*. All make arguments about the nature and meaning of time, of the universe, of earth, and of living things. We will read more modern works examining these three positions by authors such as Hume, Kant, and Bergson. If time permits, we will look at current debates among neo-Darwinists, proponents of intelligent design, and various scientists and philosophers seeking a middle ground between mechanism and creationism.

Term 6

Introduction to Syntax

Kyle Johnson

We are going to be syntacticians. The course will consist of us working on sets of examples of sentences and coming up with a description of what we find. For the first three weeks of the course, we will do this as a class and I will give you weekly assignments that give you practice at using what we've learned. The descriptions will form a grammar, and as this grammar is built, I will put it on the website as handouts and lecture notes. Once we have gotten past this preliminary stage, the course will be divided between lectures and "open sessions," where we work on problems. These problems come from a series of "domains." Those domains are specific topics in syntactic theory, and you will be tasked with becoming an expert in head movement, argument movement, or Why movement.

I will give a short introductory sketch of each of these domains in class, but most of the information will be in the form of lecture notes that will be posted on the class website. For each of these domains, there are three problems that increase in difficulty. The successful completion of a problem unlocks more of the lecture notes and the accompanying next problem.

Means and Ends in Politics

Aaron Greenberg

Political philosophers tend to focus on end states: justice, equality, freedom. But anyone who has advocated for these goals knows that even the best ideas need to be realized through messy political work. There are followers to recruit, allies to organize, decisions to make, strategies to consider, and tactics to deploy. This seminar will explore the way in which these topics have been understood by a prominent but neglected tradition of twentieth century thinkers and actors. We will attend to questions about the nature of persuasion, organization, leadership, contingency, responsibility, judgment, and the friction between political ideals and political action.

New Urbanism and Its Critics

T. Abraham Lentner

New Urbanism is a philosophy of city planning that favors moderate density, pedestrian oriented, mixed-use and transportation accessible development over more conventional late-20th century sprawling suburban development patterns. Proponents of New Urbanism contend that this type of urban design is more environmentally sustainable, facilitates stronger communities is more economically resilient and equitable. Critics argue that New Urbanism is an ahistorical nostalgic

movement that often “green-washes” suburban sprawl, results in more expensive housing and only appeals to a small niche segment of the real estate market. New Urbanism as a planning movement is now more than 20 years old. The principles of New Urbanism inspired and influenced development projects across the country, especially in the mid-2000s when the exuberance of the housing market lent credit to new ideas in residential development. Now, after a decade including a boom, recession, housing crisis and slow recovery, we may be able to evaluate these New Urbanist developments against the claims of their proponents and critics.

Students will be assigned two case study neighborhoods which will be used and shared throughout the course as examples to test and compare ideas about urban design and planning. Some case studies will be examples covered in the readings, such as Greenwich Village, Seaside, Twin Parks or Beacon Hill. Other case studies will include typical suburban developments, other new urbanist developments, or traditional urban neighborhoods.

American Labor and Working-Class History **Jefferson Cowie**

This course will focus on analyzing the development and transformation of the social history of working people, labor relations, theories of the labor movement, the workplace, race and gender, unions, and working-class politics in the 20th century. In short, this is an introduction to “how class works” in American politics and culture. We will also concentrate on exercising and sharpening abilities in critical reasoning and crafting logical and clear arguments in verbal and essay forms. The class presumes an understanding of the broad context of U.S. history as background to understanding the economic, social, and political contexts of labor history. If you’re lost on the basics of US history, a fine and quick refresher is the excellent, free, and online text: *The American Yawp*.

Because of time constraints, each week is devoted to a particular problem or theme in labor and working-class history. We will focus our discussions and writings loosely around the week’s analytical problem, which sacrifice coverage in favor of depth.

The Era of Disposal: Public Land Disposition in the 19th and 20th Century **Tara Righetti**

The relationship between the American people and the physical and natural environment has historically transitioned from fear, to conquest and mastery, to appreciation and preservation. This course surveys the major public land disposal laws of the 19th and 20th centuries that fueled the frontier expansion of the American West, including land patenting acts – such as the Homestead Act, The Stock Raising Homestead Act, the 1872 Mining Law, Pacific Railroad Acts, and the Desert Land Act – and laws that opened public lands for private

commercial use such as the Mineral Leasing Act and Taylor Grazing Act. Students are invited to unpack the historic purposes of public land disposition and to explore the cultural and legal paradigms that have evolved based on a property system rooted in conquest, domination, and capture. With this background, students are invited to evaluate and critique the modern legacy of these laws on land use and the environment and to consider the implications for current events including land exchanges, mineral patents, pipeline permitting, and the sagebrush rebellion. Development of the west was fueled by private exploitation of natural resources: timber, water, mineral, wildlife, grass, and hydrocarbon. The course asks students to consider whether these values still hold, and whether the relationship between the American People and the frontier has entered a fourth era.

2019-2020

Term 1

Identity and Community

Abram Kaplan, Sarah Stickney, Katie Peterson, Katie Kadue

The language of identity is a charged one in contemporary American politics. But the notion of identity, under different names, has long been central not just to liberal politics but to the constitution of communities of different types: political and religious, intellectual and social ones. Contemporary popular and political cultures portray identity as a matter of individual uniqueness and as association with a group, as something chosen and as something inherited, as a manifestation of freedom and as a fateful constraint. The tension between identifying with a group and finding one's identity threatened by that group, as well as their satisfying reconciliation as you "become who you are" among friends or against them, is a theme much discussed in novels and movies about teenagers.

In this course we will read ancient, early modern, and modern writing that will help us examine and weigh the grounds for these kinds of identifications, rejections, and reconciliations; we will encounter complexities implicit in the notion of identity; and we will witness and judge difficult choices that emerge from the confrontation of identity and community. In the end we may be well-positioned to ask whether the community of meanings that "identity" carries really have any identity at all.

The first half of the course will focus on tensions between identity and community that arise in contexts characterized by the demands of authority, including the responsibilities of family and of political leadership and the command of God. The second half of the course focuses on tensions that arise in contexts characterized by the demands of desire. But the distinction is somewhat artificial, since it will quickly become apparent that problems often arise for individuals when the demands of authority become entangled with those of desire, not just in contexts of leadership and religion but also in longstanding institutions such as the family, gender, polite society, and the canon. We aim not to sort out these entanglements but instead to appreciate them, with the aim of understanding how our own identities can involve rights, powers, possibilities, and duties. In order to display the complexity of identity in situ, as it were, the course privileges dramatic, poetic, and dialogic genres.

Terms 2-3

Reading Plutarch “A Fire to be Kindled”

Sarah Stickney

Plutarch’s *Lives of the Noble Greeks and Romans* escapes our categories. It is biography, political science, history, philosophy, propaganda. Certainly the artistry and excellence of the writing alone bear study. Plutarch is himself a Greek, writing at a time when the glories of Greece are past. One of his abiding concerns is the effect the Greeks continue to have on the Romans, their conquerors and imitators. One of his gifts, cherished by Montaigne, is to illuminate the whole course of a life with one small anecdote. Through his vivid portraits of some of history’s most remarkable figures, Plutarch invites us to ask just what it is that occasions and shapes a noteworthy life. In this close-reading course we will approach Plutarch from as many of his many facets as possible. We will use his work to examine history and what the past might mean to the present. We will consider him from a literary point of view, asking how it’s possible to render the portrait of a human being in words. We will think about what greatness in a man or in a life means and how it happens. We will ask if it’s possible to access anyone’s inner life by means of their outer. And more!

Modern & Contemporary Novels of Early Adult Life

David Neidorf

In this course we will read and discuss (paper-writing being a continuation of discussion) novels about people who are trying to find their way in life without the anchoring authority of a fixed social structure, respectable or plausible group identities, traditions, or life-path expectations. The course grew out of conversations I’ve been having with friends and with students. Since we’ll read novels, we can expect to get better at reading novels—by this I mean learning more about how they can be put together, how they establish and explore themes and characters, how language can reflect a variety of sensibilities. But learning to read “the novel” isn’t a goal, it’s just a tool. It brings the more developed sensibilities and thoughts embedded in the novels into our conversation more effectively—which is to say, they open a path to a deeper understanding of one small corner of human life.

An alternate way of describing the enterprise: learning to read more deeply novels about one aspect of the postmodern situation. What’s “postmodern” in this context? For most people in most times, as you enter adulthood you have in mind a fixed set of scripts or life-ways. You know what it means to have a family, a career, friends, a community, work that supports those things. But we live in socially revolutionary times, and a sign of this is that the ways of previous generations, although we can pick and choose fragments of them as our inclinations suggest, don’t carry for most of us any really grounding social authority. What does it mean to enter the workforce if the old way of entering a life-long profession is economically bankrupt? What does it mean to have a love life in the absence of a

traditional family unit as an orienting goal? Outside of those bankrupt social scripts, what do we really desire from one another anyway? What kind of people does the world call us to be, when having a profession or having children don't seem natural or necessary? In all of these books, these kinds of problems are driving the action. Our goal is to use the books to have an extended conversation about them.

Conservative Political Thought in America

Aaron Greenberg

This course will explore conservative political thought in America. Conservative intellectuals see their doctrine as coherent, distinctive, and compelling, influenced by thinkers like Edmund Burke, Benjamin Disraeli, Michael Oakeshott, and F.A. Hayek. They disclaim many mainstream political standard-bearers like Sarah Palin or Donald Trump as inconsistent with the temperament and spirit of true conservatism. Critics, meanwhile, argue that conservatism has only ever been a rationalization for domination and the preservation of hierarchy. While we will not finally resolve this controversy, these perspectives will help structure our investigation. We will explore the many tendencies in this broad church, including classical conservatism, libertarianism, religious conservatism, legal originalism, neo-confederate thought, cultural conservatism, “cowboy conservatism,” and black conservatism, among others. Throughout the seminar, we will attend to the relationship between conservatism as a constellation of ideas and as a living, breathing political movement with policy goals, successes, and failures.

The American Presidency

Aaron Greenberg

Everyone has an opinion about the President. But what does the President actually do and how? This course sets out to answer that question. In a moment of renewed attention to the executive branch, it can be tempting to assume that the President is as powerful as he says he is. We will not take this for granted. Our study of the Presidency will be eclectic, drawing from multiple disciplines and approaches. We will examine the relationship between the Presidency and other institutions in the federal government; the President as a leader in the party system; as policy entrepreneur; negotiator; and protagonist in the contemporary political imagination. In addition, we will assess scholarly debate about the nature of the Presidency and how Presidents achieve their objectives; lead political coalitions; respond to the public; and durably transform governing institutions. Throughout, we will attend to the way executive branch has changed over time.

Plants & People: Plant Cultivation as Human Ecology

Amity Wilczek

Over thousands of years and in myriad ecological contexts, humans have domesticated plants and sought to control their production. Local plant availability and cultivation techniques have also shaped how human societies develop in and interact with their environment – influencing everything from population density to nomadism to public health.

In this course, we will first cover the basics of plant form, structure and function in the context of their use in human society. We will learn about the strategies and "behaviors" that these stationary organisms employ in their struggle for survival, and their import for current, historical and future human populations.

In the second term of the course, we will turn our focus to the challenges of growing food sustainably and for a growing population. How do considerations of sustainability change as we move from local food production in an arid environment to industrial-scale food production in "breadbasket" areas? We will pay special attention to current and historical land use in our local area, including cultivation and collection practices of the Paiute as well as the sustainability of modern alfalfa and pasture operations.

The goal of this course is not to provide an exhaustive account of agriculture (which certainly would not be possible in a single semester). Instead, this course seeks to provide a grounding from which you can ask deeper and better questions about humans' relationship to their food & the land.

Brains and Minds

Frances Chen

The question of how our brains and nervous systems give rise to our minds—including our thoughts, emotions, and behaviors—has been explored by psychologists, neuroscientists, and philosophers from numerous perspectives. In this course, we will focus on just one aspect of this larger question: namely, how hormones shape our psychology. The first part of this course will provide broad overview of the topic covering individual sex hormones (e.g., testosterone, estrogen) and their effects on aspects of our psychology ranging from social behavior to mood. In the second part of the course, we will engage in an in-depth examination about the case of depression. Throughout the course, we will critically evaluate and debate evidence regarding how hormones and biology (in combination with cultural beliefs and structural factors) give rise to our subjective human experiences.

The Mathematizing of Motion: Aristotle to Galileo

Brother Kenneth Cardwell

This course would have two fixed points. The first is Aristotle's *Physics*, a dialectical and almost completely unmathematical struggle for concepts needed to account for what we call the universe. The second is Galileo's *Two New Sciences*, in which mathematics begins to rationalize motions in the cosmos. In between these two fixed points we could veer to one side or another. We could focus on the classical geometry and newer mathematical developments Galileo needed for his account of, for example, the parabolic trajectory of a projectile. Or we could dabble in history of science and explore disputed questions clustering around Galileo's achievement. Or we could sally off into linguistic and conceptual matters, questions such as whether motion can be defined (Locke: "No.") or whether Galileo and a resurrected Aristotle could understand one another (Kuhn: "Nope.") In all cases, our investigation will be philosophical and some part of it will require either observation of common natural phenomena or the construction of physical experiences ("experiments") designed to reveal the doings of nature. Writing will allow students to sharpen their insights through care for exact expression. Additional readings will depend on the direction chosen for the course.

Modernism Through Modern Art

Justin Kim

This course examines the phenomenon known as Modernism through the lens of modern art – not merely as a series of movements in the evolution of cultural history, but also as a fundamental shift in a humanist understanding of the world and our relationship to it. Whereas the traditional world grappled with questions of man's relation to God and emerging subjectivity, the Modern consciousness splinters into a range of different areas: man's relationship to nature, technology and culture, theories of psychology and the unconscious, an evolving sensibility of artifice and irony and a shift in historical approach from positivism to methodological skepticism and epistemological doubt. The advent of the First World War coincided with an assault from the avant-garde upon the institutions of art and upon the (declared) values of Western society. These gestures of redefinition, rupture, and assault endure and mutate throughout the twentieth century into our own, ironically perhaps, accruing their own history against the backdrop of ongoing social change.

Terms 4-5

Civil War and Insurgencies

Anna Feuer

Since 1945, war within states has replaced war between states as the most common and deadly form of armed conflict around the world. But there is little consensus among researchers as to the causes and consequences of intrastate war. Under what conditions are civil wars and insurgencies likely to emerge? What distinguishes them from other forms of political violence, like organized crime? Are they motivated by ideology, ethnic and religious divisions, competition for economic resources, or international pressures? Why are some conflicts ended by negotiated settlement, while some rage on for decades? When, if ever, should international actors intervene to halt the bloodshed? And how do these conflicts shape post-war governance and society?

Drawing on research from across the social sciences as well as journalistic and ethnographic accounts of particular wars, this course examines the political, economic, and social dimensions of domestic armed conflicts. I propose that we focus on four diverse and instructive post-1945 conflicts—in Northern Ireland, Yugoslavia, Rwanda, and Afghanistan—but we can substitute other cases depending on student interest. In each case, we will examine the factors that contributed to widespread violence, the dynamics of irregular and guerrilla warfare, the challenges and effectiveness of conflict resolution and peacebuilding processes, and how combatants, civilians, and policymakers made sense of the conflict. We will end the course by reflecting on prospects for peace in Syria and Yemen.

Linear Algebra

Tom Cassidy

Linear algebra is central in many areas of mathematics, including geometry, functional analysis, statistics, and abstract algebra. Engineers, physicists, and social scientists have found the tools of linear algebra to be widely applicable for modeling natural phenomena and for computing with these models. But linear algebra is also interesting in its own right, as a beautiful and self-contained field of study.

The study of linear algebra begins with systems of linear equations and their representations via matrices and vector spaces. Topics include matrices, vectors, linear transformations, linear independence, spanning sets, bases, subspaces, nullspaces, isomorphisms, eigenvalues and eigenvectors, orthogonality, and diagonalization. We will be using Axler's *Linear Algebra Done Right* as our textbook for this class.

History and Future of Infectious Diseases

Amity Wilczek

Disease has played a major role in shaping the course of history, and the study of health suggests many obvious connections between science and service to humanity. Despite remarkable advances in disease prevention and treatment in the last century, the Global Health Council estimates that 15 million deaths each year are caused by infectious diseases. To date, public health approaches have been successful in eliminating only two major diseases, both caused by viruses and only one found in humans; small pox was eradicated in the wild in 1979, and the cattle disease rinderpest was declared extinct in 2011. In contrast, enormous efforts in the middle part of the 20th century to eradicate malaria proved unsuccessful and were abandoned by 1970. Malaria, once an important disease even within the US, is no longer considered endemic to this country but continues to be diagnosed here in about 1,700 people per year. Worldwide, malaria continues to be a major source of morbidity and mortality and was responsible for nearly half a million deaths in 2016.

In this course, we will explore how the biology of diseases affects transmission and treatment. We will also discuss how knowledge of disease biology influences public health decisions. To sum up in a single sentence, this course has the following objective: To acquire a basic knowledge of the ways in which disease biology affects disease transmission and treatment, and to explore how this interplay in turn influences public health decisions.

Homer: *Iliad* and *Odyssey*

David Neidorf

We devote the first half of the semester to the *Iliad*, the second half to the *Odyssey*. Class discussion will focus on literary form, poetic interpretation, and questions of philosophical anthropology, sometimes exploring how the poems illuminate matters of concern to contemporary political and social life. Students learn to prepare a close-reading of the day's assignment and to pose and defend interpretations in discussion. Grading is based on three essays and class discussion. Required Texts: Homer, *Iliad* and *Odyssey*, Graves, *The Greek Myths* (used for source references only, not for the authors' interpretations).

Middlemarch

Anton Barba-Kay

Here is a chance to work our way slowly through the best of novels—and “one of the few English novels written for grown-up people” (as Virginia Woolf called it). The book opens up on

many different lines of question and thought, but (appropriately) growing up is front and center to it: what it is to discover one's vocation and marry well, how ambition translates into action, how large aspirations can find a home among small-minded neighbors, how to express spiritual yearning in a post-Christian world, and what it means to live a heroic life under modern circumstances that seem to have no more use for heroism. More than a writer of entertaining stories, I think Mary Ann Evans (George Eliot) offers the reader a new form of empathetic education, a way of making our unseen inner lives visible within modernity's "inconsistency and formlessness." Her authorial voice constantly brings us back to the fact that it is we who are at issue in the story's mirror, even as we are drawn into the story and characters in their own right. We will also read connected essays and criticism by and about Evans.

How to Think Like a Writer

Sarah Stickney

The purpose of this course is to hone all the skills involved in writing. Many of these important skills are at work before the pen hits the page, and all of them are valuable whether you plan to become a poet, a mathematician, or simply a more-alive human. The capacity for keen observation is the first and most necessary skill. In this course you will practice seeing and hearing more precisely what is around you as well as what lies within texts. You will become a better reader of books and of people, of growing things, the sky, weather, ideas themselves. You will sharpen your memory and work on identifying the essential elements of your own thought. You will imitate other writing styles in order to find your own idiom. You will broaden the scope of possible expression in any one sentence. And more! Students will write in various forms including poetry, flash-fiction, personal essay, and lyric essay. The curriculum will involve extensive reading. Readings by any author will usually consist of one section on craft, and one example of the author's work. In order to read as widely as possible, we may sometimes condense the writing on craft and the writing itself into a single class. Students should expect to be workshopped three times over the course of the semester.

Kant's Copernican Revolution in Philosophy

Nicholas Gooding

In this course, we will read one of the greatest and most difficult texts in the history of philosophy, Kant's Critique of Pure Reason, which Kant described as ushering in a revolution in philosophy on par with the Copernican revolution in astronomy. Because Kant is, in part, responding to previous philosophical work, we will begin by reading work by Descartes and Hume. Topics which Kant addresses and which we will discuss include: the nature of space and time, the foundations of scientific knowledge, causation, skepticism about the external world, freedom and determinism, and the nature of philosophy itself. We will conclude by considering aspects of Kant's philosophical legacy in the 20th century.

Term 6

Experimental Field Ecology

Amity Wilczek

Every landscape is rich with information about the lifestyles and experiences of the organisms it contains. Why are some landscapes dominated by grasses while others are populated by trees? What can we deduce about the soil and grazing history of an area from the structure of the local plant community? Knowledge of ecology, the scientific discipline that studies interactions between organisms and the environment, can help us interpret our surroundings and provide a novel perspective on what we encounter.

This course will introduce basic ecological principles and experimental techniques through background readings and investigations in the field. We will focus on understanding the processes that dominate the many and varied natural systems in our area. For instance, we will examine the challenges posed by desert and alpine environments, and we will learn to recognize plant and animal adaptations that facilitate survival in these harsh habitats.

Tragedy and Politics

Daniel Schillinger

The conceit of this course is that we need tragedy—that, with suitable translation, tragedy's distinctive ethical universe, its political preoccupations, and its unique dramatic and theoretical form can illuminate our own unquiet time. Reading Aeschylus, Sophocles, and Euripides, the canonical Greek tragedians, we will discuss enduring and discomfiting ethical questions. How should we confront death—and how do we confront it? Do human beings encounter impossible situations, in which wrongdoing is inevitable? What is the role of luck in determining how our lives turn out? In addition, we will see that Aeschylus, Sophocles, and Euripides were piercing observers of political life. In their hands, tragedy was a distinctively democratic discourse that critically engaged with the central ideas and practices of Athenian democracy—from free speech to imperial warfare, from self-government to oppression of women and slaves. Tragedy will push us, as it pushed ancient Athenians, to reflect on the promises and perils of democratic politics.

We will also approach Greek tragedy through its reception. Heavyweight philosophers including Aristotle, Nietzsche, and Heidegger offer epic theories of tragedy as artform, ethical orientation, and political-cultural phenomenon. And influential scholars, including Danielle Allen, Arlene Saxonhouse, and J. Peter Euben, give us precise interpretations of particular plays that also raise philosophical and political questions. Finally, contemporary tragedians, filmmakers, and actors—for

example, Wole Soyinka, Astra Taylor, and the Theater of War Project—allow us to experience tragedy and to revivify it for our own political situation.

2020-2021

Term 1

Philosophy as a Way of Life

David Arndt, Julie Park, Sonia Neidorf

Philosophy was originally understood not as an academic field but as a way of life devoted to the search for wisdom. A number of recent thinkers have tried to retrieve and refine this understanding of philosophy, and we will follow their lead by reading both ancient and modern philosophers from several traditions (Socratic, Skeptic, Stoic, Epicurean, Christian, Existential, Feminist).

At the end of this course, student will understand the basic tenets of the six main traditions of ancient Western philosophy (Socratic, Platonic, Aristotelean, Epicurean, Stoic, and Skeptic); the core tenets of the Christian tradition as articulated in the Sermon on the Mount; the principles and assumptions of scientific or scientific philosophy; and the questions posed by thinkers in the tradition of existential thought.

Terms 2-3

Kierkegaard: *Enten/Eller*

Antón Barba-Kay

Whatever can be done while poetry and philosophy are separated has been accomplished. So the time has come to unite the two. (F. Schlegel)

No one knew what to make of *Either/Or* when it appeared (under the pseudonym “Victor Eremita”—i.e. “Victor the Hermit”) in 1843. It is at once a serious work of philosophy and a brilliant work of literary fiction in the form of an epistolary exchange between two characters who offer contrasting answers to the question of how to live. The first half (by an author known simply as “A”) consists of a series of disconnected sketches about how to transform one’s life into a work of art—how to lead a life full of interesting pathos, beautiful transience, and variety of experience. (The longest portion of this half, the “Seducer’s Diary,” is what early readers were greediest for.) The second half is written in the voice of Judge William, who, in his earnest attempt to save “A” from himself, responds to him with what is still the loveliest encomium of marriage ever written. But it is not clear who is in the right. Kierkegaard (like Plato) does not show his own hand, leaving it to the reader to work out for him or herself whether one or both of these positions (“aesthetic” and “ethical,” respectively) can be the true one, and how, by extension, to judge the best life. Given the time, we will supplement a careful reading of *Either/Or* with a briefer study of *Fear and Trembling*, in which Kierkegaard presents a third stage, the “religious,” under a different pseudonym. The relation between these three “stages” or “spheres” makes up the heart of Kierkegaard’s philosophical preoccupation, so that the course will serve as a general introduction to the thought and method of one of the most incandescent thinkers of the nineteenth century.

Self-Fashioning: Autobiography

Jocelyn Saidenberg

In this course we will explore the genre of autobiography and memoir, questioning what it means to narrate the self and the role that memory plays in these projects in the various forms and rhetoric of self-fashioning. In didactic, religious, political works, we will explore the assumptions about memory and language that these endeavors reveal. Beginning with Saint Augustine’s *Confessions*, we will examine the genre’s relation to religious conversions, and we will then investigate how the genre changes and adapts, departing from the religious contexts, to include, for example, political treatise and sexual manifestoes. How does the language of self-fashioning both document and obscure the self as it is being authored? How do these texts address and engage with their readers and to what ends? Why and for whom are we repeatedly compelled to tell the stories of our lives? To work through these questions, we will draw our materials from a variety of historical periods and literary

traditions, including selections from the following: Rousseau's *Confessions*, Frederick Douglass's *Narrative of the Life of Frederick Douglass, an American Slave*, Roland Barthes's *Roland Barthes*, Leonora Carrington's *Down Below*, Joe Brainard's *I Remember*, James Baldwin's *The Fire Next Time*, Audre Lorde's *Zami: A New Spelling of My Name: A Biomythology*, David Wojnarowicz's, *Close to the Knives: A Memoir of Disintegration*, Adrian Piper's *Out of Order, Out of Sight*, Zadie Smith's *Swing Time*, and Ta-Nehisi Coates's *Between the World and Me*.

Readings in Colonial and Post-Colonial

Anna Feuer

This course explores major questions in the study of European imperialism and anti-colonial politics through close readings of seminal texts. What is the historical relationship between modern political thought and European expansionism? How was liberal theory rooted in the universalist principles of liberty, equality, and individual rights used to justify imperial subjugation? How did anti-colonial leaders like Mohandas Karamchand Gandhi and Frantz Fanon interpret the contradictions of liberalism as evidenced in the colonies? Does the violence of imperialism necessitate a violent decolonial struggle in turn? How does colonial power rely on the production of a certain form of knowledge? Is postcolonial nationalism necessarily derivative of European ideals?

The course will begin by studying how some of the canonical European thinkers of the eighteenth and nineteenth centuries—John Locke, Edmund Burke, and John Stuart Mill—understood the meaning and consequences of imperialism. Next, we will examine three distinct and powerful critiques of the liberal foundations of imperialism and their implications for both the colony and the metropole:

Gandhi's *Hind Swaraj*, Fanon's *The Wretched of the Earth*, and part II of Hannah Arendt's *The Origins of Totalitarianism*. Finally, we will explore more contemporary analyses of colonial power and its postcolonial legacies in the work of scholars like Edward Said, Benedict Anderson, Partha Chatterjee, Dipesh Chakrabarty, and the fiction writer Mahasweta Devi. We will also read two novels of empire that are foundational to postcolonial theory and criticism: Joseph Conrad's *Heart of Darkness* and Chinua Achebe's *Things Fall Apart*.

Politics and Punishment

Anna Feuer

“While society in the United States gives the example of the most extended liberty,” wrote Alexis de Tocqueville in 1833, “the prisons of the same country offer the spectacle of the most complete despotism.” Punishment in the form of incarceration is a persistent and troubling—if largely hidden—aspect of American life: today there are more than 2 million Americans in prison or jail, accounting for 25 percent of the world's prisoners.

This course will ask: What is punishment and what is it for? What right has a democratic state to inflict deprivation or even death upon its citizens? Why has the form that legal punishment takes—from the theater of public torture to the concealed space of the modern prison—changed so radically over time? What do our systems of punishment reveal about the relationship of the state to the individual? And how do they intersect with historical structures of racial and economic inequality?

To approach these questions, this course will consider a range of texts in philosophy, political theory, and sociology that explore punishment as a social institution. We will begin the class by reading major nineteenth- and early-twentieth-century theories of social control and penal power, including selections from the works of Nietzsche, Durkheim, Weber, Freud, and Foucault. We will then discuss the theory and practice of punishment in the contexts of the United States’ “war on drugs” and “war on terror,” drawing on the work of scholars like Michelle Alexander and Victor Rios and the philosopher Giorgio Agamben. In addition to philosophical and sociological accounts of punishment, we will read first-hand reflections on life in prison by Fyodor Dostoevsky and Malcolm X.

History and Science of the Manhattan Project

Brian Hill

The Manhattan project is a chance to look simultaneously at the almost unbelievable scientific and technological developments which came in rapid succession just before, during, and after WWII, and at their historic consequences. The science includes the discovery of natural radioactivity (by Becquerel and the Curies), the development of controlled fission (Fermi’s atomic pile), and the possibility of fission explosions (the atomic bomb). The history includes the race to make weapons based on fission, the destruction of two cities, and the setting of the stage for the superpower stalemate that has continued with slowly shifting boundaries decade after decade ever since.

A study of the Manhattan Project is not just an opportunity to study momentous scientific developments and past events. Its ongoing significance makes it nearly a duty to at some point contemplate what we have collectively created. Each person will have their own response to the events and the resulting situation. Perhaps the only response we can’t afford given the high stakes of mutually assured destruction is complacency.

The Special Theory of Relativity

Brian Hill

The fundamental paradox that the speed of light is constant (it is observed to be the same regardless of an observer’s velocity) is resolved by Einstein’s special theory of relativity. However the resolution brings us to even more puzzling confrontations to our intuition. Among the things we have to accept are the relativity of simultaneity (it is impossible for different observers to simultaneously synchronize

their clocks), length contraction (moving objects are foreshortened), and time dilation (moving clocks run slow, epitomized in the Twin Paradox).

A one-semester course beginning with the evidence ruling out the ether theory, focusing on all of the consequences of special relativity, and culminating with a very brief introduction to Einstein's even more profound general theory of relativity, leaps the student forward from the usual starting point in science of 17th century mechanics straight into 20th century results, and covers a scientific revolution even more unintuitive than the oft-studied Copernican revolution. With the theory we will develop, we can actually appreciate both the measurements made by the LIGO experiment that detected gravity waves from black hole mergers, and the features seen in the Event Horizon Telescope's recent imaging of a black hole.

Land and Place-Based Art Making

Katherine Lee and Zane Fischer

Reflecting on place, history, identity and environment, we will examine how art is made within land and landscape, as well as what it means to make artwork intended for a specific place or site. We will survey place-based artmaking, including site specific projects, land art, time-, light- and sound-based art, found objects, readymades, arte povera, body-centric performance, dorodango, etc, and engage in producing a number of these. The course will also serve as an investigation of materials—Everything from consumer detritus to earth, stone and shadow may be used. In reading and discussion, artists from Michaelangelo Pistoletto and Fujiko Nakaya to Anne Hamilton and Andy Goldworthy will be considered. The course will encompass drawing, sculpture, assemblage and other studio techniques. Students will consider the implications of intervention in both built and natural environments.

Term 4

NB: For the 2020-2021 academic year, the typical class arrangement swapped such that Term 4 operated as Term 6 normally does, and Terms 5-6 operated as a semester. This term was also held virtually.

Dao de Jing and Zhuangzi's Inner Chapters

Patricia Locke

This course will explore the *Dao de Jing* as a philosophical work; we will be reading *Dao De Jing "Making This Life Significant," A Philosophical Translation*, translated with commentary by Roger T. Ames and David L. Hall 2003. We will then move onto the *Inner Chapters*, in which we will be chiefly reading *Chuang-Tzu The Inner Chapters*. Translated by A. C. Graham, 2001. However, we will be contrasting this translation with others to explore more deeply the philosophical underpinnings of the work.

Economic Development Laboratory

Matthew "Chef" Kwatinetz

The fundamental purpose of economic development is enable inclusive growth. Economic developers seek to shape the economy, intervening in situations in which the market economy (ie, free market capitalism) fail the worker, the entrepreneur, the citizen and society as a whole. We live in a time of extreme politics and social strife, in which the gap between rich and poor in the US is at one of its highest historically even as the recent COVID-19 pandemic has wreaked further havoc on the economy, leaving a skyrocketing unemployment rate in its wake. Now more than ever, we must seek efficient pathways for those in both rural and urban areas to experience inclusive growth and prosperity. Communities must create ecosystems that develop new ideas and help to foster cultural, entrepreneurial, civic, scientific, and artistic creativity.

This course will examine the evolution in theory and practice of economic development concepts, as well as actual initiatives in both rural and urban environments. Underlying systems will be examined, including those of housing production, transportation systems, supply chains and infrastructure. The evolution of economic development schools of thought will be reviewed, from comparative advantage, to export base theory, anchor theory, cluster theory and integrated local area development using land as a capital resource. Unique product types will be explored such as culturally anchored commercial developments and master planned developments. Throughout, we will provide a toolbox of economic development strategies and tactics, along with relevant real-world examples through case study, video and guest lectures. By completing the course, participants will obtain a basic understanding of forces affecting economic development strategies, information on successful and unsuccessful approaches, and an opportunity to engage in a critical analysis of current thinking in urban economic development. They will be challenged to express these ideas in formats befitting the "real world" -- in

solo and group presentations, short memos, case discussion and debate with their peers. As a final project the students will deliver a case study and evaluation of a regional northern Nevada economic development strategy.

Introduction to Computer Science

Brian Hill

Every walk of life uses computer science, either directly or indirectly. Knowing what computers can and cannot do and what it takes to program them is a lifting of a veil that the majority of people never peer behind. Those that have a mental model of what computers do can utilize computers well, and utilize people that write software for computers far more realistically. We will be following Harvard's CS50x materials. CS50x is a full-semester course comprising 11 weeks plus a special project. For Deep Springs Term 4 (a half-semester) we will be doing Weeks 0 to 6 of CS50x (seven weeks).

The bulk of our course will be spent learning C, which is the foundation of all modern operating systems. As a warmup to C, Harvard has a little prelude in a language called Scratch. Because Python is practically more important than C for the majority of software developers and computer users, we will conclude with a short introduction to Python. Python hides so much of what the computer has to do to operate on data that many computer scientists judge it to be worthwhile to first learn a lower-level language like C, even if you never use it again, before turning to Python.

Terms 5-6

Aesthetics and Politics

Ana Isabel Keilson

Since the eighteenth century, philosophers and political and social theorists have attributed an important role to aesthetics, defined alternately as the appreciation of art and beauty and as the felt (sensible, embodied) experience of the world. This class combines methods in intellectual history, philosophy, and political theory to examine how aesthetics and its central concepts (taste, beauty, imagination, judgment, the relationship of content to form) have framed understandings of social and political life. The class begins by tracing the emergence of aesthetics in the mid- to late eighteenth century (Burke, Kant) as a branch of philosophical inquiry focused on individual freedom and its limits. Part II of the course looks at how nineteenth-century thinkers (Schiller, Schopenhauer, Nietzsche) have explored the radical political and social dimensions of aesthetics through its ties to cultural and artistic production. Part III of the course examines how modern thinkers (Marx, Heidegger, Adorno) have, in different ways, turned to aesthetics as a reserve of radical change and truth in an industrial-capitalist and de-humanizing world. Working from Sheldon Wolin's claim that political thought, in its "architectonic vision," is necessarily aesthetic, we will discover how an historical understanding of the relationship of aesthetics and politics unlocks new possibilities for making sense of the world we live in today.

Political Ecology of Agrifood Systems

Margiana Petersen-Rockney

This seminar course investigates the intersections of agriculture, the environment, and society, providing students a foundation in key theories used in the study of agrifood systems, as well as a survey of topics through which to engage those theories. We begin with classic agrarian theories - drawn primarily from the fields of sociology (Buttel, Vogeler, Bernstein), ecology (Kremen, Altieri, Phalan), and political economy (Marx, Chayanov, Polanyi) - paired with the work of more contemporary scholars who bring race, ethnicity, and gender into these class-based discourses (Federici, Minkoff-Zern, Barlett). We pay particular attention to the role of the state and the rise of capitalist political economy in global agrifood systems. The middle section of the course consists of topical analyses organized by what Karl Polanyi (1944) called the "fictitious commodities" of land, labor, and money. The final section of the course explores some contemporary crises and responses like climate change, rural populism, and water policy in the American west. Here we also discuss alternative food movements like food sovereignty and local food, paired with critiques of these efforts. The course also highlights various interdisciplinary research approaches and methods, primarily as another way to engage with the texts and the research process across the social and physical sciences. With my guidance and peer review, each student develops a course project, which involves developing

a research question, using appropriate methods to address that question, and making an argument in a narrative style in the student's media of choice – such as a research paper, a podcast, a presentation of visual sociology, a journalistic feature story, or a policy brief.

The Cosmos: A Survey of Modern Astronomy

Brian Hill

The course will first focus on fundamentals such as the light and the black-body spectrum, the astronomical coordinate system, the motion of objects within our solar system, and the composition of Earth and the other planets. It will then proceed to our understanding of the nearby stars and the rest of our galaxy. At each step along the way we will emphasize not just what is known, but how it has been determined through the interplay of theory and observation. With these fundamentals, you will be prepared to move farther out into the cosmos, starting with what is known about nearby galaxies, then moving to the evidence for the Big Bang. Near the end of the course, we will get to the complications of the properties of galaxies and the expansion since the Big Bang that can only be explained by dark matter and dark energy.

The course will also have a hands-on component. Pairs of students will do a special project from among the many that are possible with a 130mm refractor, a high-performance CMOS sensor, and research-grade software to control the equipment and analyze data. Possible projects include astrophotography of galaxies and nebulae, imaging of planets, and variable star observation.

The Brothers Karamazov

Anton Barba-Kay

The class will consist of a close reading of what is arguably the best of all novels, with an eye to thinking through the relation between Christianity and the modern secular state, what it means to be a child, how to become a self or to avoid doing so, why we are inescapably meshed in our family histories, and how to respond to the fathomless evil and suffering we encounter in ourselves and in the world—among other issues. While we will mainly be concerned with reading the novel itself, I would like us to engage with it on a number of different registers: philosophically, aesthetically, theologically, historically, legally, narratologically, psychologically.

Journey to the West

Patricia Locke

Contact instructor directly for description

Mathematical Analysis: The Foundation of Calculus

Brian Hill

Mathematical Analysis or Real Analysis includes many theorems that are absolutely essential to calculus but are typically used as if they are obvious and without proof. As an example, The Intermediate Value Theorem — which says that if a function is continuous and it takes on the values a and b , then it must take on all the values between a and b — seems sufficiently obvious that it can be accepted without proof. However, the proof is well within reach, even by someone who hasn't taken calculus and may decide not to go further in mathematics. The benefit of studying the proof of this particular theorem is that it forces one to be precise about the definition of continuity and about the properties of the real numbers. It allows one to enter into the mindset of the mathematician, whose main aim could be described as constructing logically rigorous and intellectually satisfying proofs starting from systems of definitions and axioms.

A course in the topics of mathematical analysis that undergird calculus prepares one to think rigorously, to understand real analysis the way mathematicians do, and to understand fundamental theorems that are beautiful and significant in their own right. As a treat we will even go beyond the confines of the real numbers and in our final unit introduce imaginary numbers (also known as complex numbers). This will allow us to conclude with the 1799 proof by Gauss of The Fundamental Theorem of Algebra.

Plato on Love

Sarah Stickney

In The Symposium Plato's Socrates boasts "The only thing I say I know is the art of love." (177d8-9) Why is love the only exception to his famous declaration that he knows nothing, and why is it so important?

The relationship between eros and learning are at the heart of Plato's thought; The Symposium and The Phaedrus are the best places to examine the connection between these two towering concepts. The two dialogues have given us most of our ideas about what Plato thinks of love, learning, teaching, writing, and friendship. When we use phrases like "other self," "dark horse," and "Platonic love," we are referencing these works whether we know it or not.

Two of Plato's most beautiful and evocative works, these dialogues have been interpreted, reinterpreted, and misinterpreted by so many minds that it's difficult to know how to approach them. In this course we will attempt to set aside received ideas about what Plato thinks in order to confront the mysterious, beautiful, contradictory text itself. Does Plato think that sexual desire is in conflict with philosophy or is it in fact necessary to it? Does he consider the written word a failure? What is the role of the political in love and friendship? Is it true, as the last line of the Phaedrus claims, that

“friends have all things in common”? These are just a few of the questions we will consider as we attempt to understand what one of the greatest Western writers thought about one of the most important themes in human life.

Classics of Political Economy: Adam Smith and Karl Marx **Anna Feuer**

This course examines the principles of liberal capitalism by studying the work of its most important early champion, Adam Smith, and its most influential opponent, Karl Marx. In *The Wealth of Nations*, Smith presents his classical theory of free-market liberalism as the best way to increase the general wealth of society and improve the conditions of its poorest members. What Smith called “commercial society” would allow the invisible hand of the market to more effectively distribute goods than would mercantilist efforts to superintend trade. His argument for the power of the market rests upon a particular moral and psychological account of human nature: “It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner,” Smith reminds us, “but from their regard to their own self-interest.” Marx’s revolutionary critique of Smith’s commercial society identifies the internal contradictions that presage its inevitable collapse. Capitalism, for Marx, alienates the worker from his labor, stultifies him, and keeps him in a position of permanent subservience. We will work through each thinker’s account by closely reading selections from Smith’s *Wealth of Nations* and *Theory of Moral Sentiments*, and Marx’s “On the Jewish Question,” the *Economic and Philosophic Manuscripts of 1844*, *The German Ideology*, the *Manifesto of the Communist Party*, and *Capital*, volume I.

The Cubist War: World War I in History, Politics, and Culture **Anna Feuer**

The literary critic Paul Fussell wrote that the First World War “was perhaps the last to be conceived as taking place within a seamless, purposeful ‘history’ involving a coherent stream of time running from past through present to future.” Between 1914 and 1918—during a war that produced an astounding 40 million casualties—Europeans lost their grip on all they had held to be stable and certain: the strength of the old monarchies, the infallibility of Western rationalism, the chivalric glory of war. This was a “Cubist war,” as the historian Stephen Kern (citing Gertrude Stein) puts it, resembling a Picasso painting in its refusal to admit of a single, unified perspective. The war dissolved the German, Austro-Hungarian, Ottoman, and Russian empires and gave birth to new nations in Central Europe and the Middle East; it produced a Communist revolution in Russia; it laid the foundations for modern global governance; it catapulted the United States to the status of a world power; and it set the stage for the rise of fascism across Europe. It upended the very experience of time and space, as new technologies like the airplane demolished physical distance—a perceptual transformation captured by modernist art and literature. This course examines the causes, conduct, and consequences of the First World War,

with special attention to the aesthetic, technological, and social experiences of soldiers and civilians. Readings will draw from history, literature, criticism, psychoanalysis, primary documents, visual art, and music.

Term 5 only

Virginia Woolf

Sarah Stickney

Woolf's writing is inevitably described by the phrase "stream of consciousness" but it is so much finer, so much more artful and intricate and concrete than the mess of thoughts that passes through us every day. And yet there is perhaps no other writer of English more devoted to attempting to capture the shape of thought, the feel of it in the mind, the texture of it as it encounters the objects of the world. In these two novels Woolf reveals that our lives are only accidentally familiar and that underneath their recognizable surface lies unending mystery. In this course we will think about thinking, but we will also spend some time examining how Woolf creates the unique lifescape that makes her, even today, a radical writer.

Term 6 only

Machiavelli

Daniel Schillinger

In this Term 6 course, we will examine the philosophical, political, and moral revolution performed by the writings of Niccolò Machiavelli. Machiavelli's writings are incisive, revelatory, revolutionary, and chilling in their careful attention to how rulers acquire and expand autocratic power, how ordinary people assert themselves in republics and hold rulers to account, and how religions and ideologies delimit political horizons, foreclosing or opening possibilities for change.

Secularism and Its Critics

Justin Reynolds

Is secularism dead? Some scholars and political commentators seem to think so. The last thirty years has witnessed the publication of numerous books and articles suggesting that the world – outside of western Europe – is becoming more religious. Much of this literature also claims that the Enlightenment dream of an entirely secular world is itself nothing more than a religious myth. Moreover, many scholars on all sides of the political spectrum now argue that such notions as human rights, liberal democracy and the separation of church and state are nothing more than products of the “Judeo-Christian” tradition. Yet some scholars resist these suggestions by defending the secular Enlightenment tradition against its new critics. This course will look to the past to understand the roots of contemporary debates over the secular and secularism. We will begin by reading some fundamental texts from Western antiquity to the mid-20th century as points of entry into the concepts, institutions, debates, and tensions that define “the secular”. Drawing on these sources, we will then examine some of the most notable recent works critical of secularism as well as those who seek to defend secular modernity (the privatization of religious belief, the separation of church and state, the promotion of a religiously neutral public sphere). In doing so we will read literature that spans a variety of fields - history, political theory, anthropology and philosophy – and worldviews – Islam, Christianity, Judaism, Secular Atheism, etc. Our goals will be to discover what is motivating the myriad recent critics of secularism, to assess their strengths and limitations of their positions, and to consider what might be involved, conceptually and politically, in reinventing secularism today.

2021-2022

Term 1

Going On Together in the Anthropocene: Community, Ecologies, Politics

Ali Aslam (Co-Professor), Joel Alden Schlosser (Co-Professor), Sonia Neidorf (Writing Tutor)

The Anthropocene names the present era in which human activities are recognized for effecting potentially catastrophic environmental change. This course examines how views of the human, property, and politics shape thinking about the Anthropocene and political responses to it. Our collective inquiry is guided by the following overarching questions: What view of the human underlies the Anthropocene? What political structures and historical contexts have shaped the present moment and determine our responses to it? Can we live in community with non-humans as well as humans -- and if so, how? And what visions of collective life seem imaginable beyond the present configuration?

Terms 2-3

By Any Means Necessary: Violence and Politics

Anna Feuer

Simone Weil defines violence (or “force,” in her terms) as that which turns anyone who is subjected to it into a thing. Violence dehumanizes its agents as much as its victims; human nature, in its presence, is “swept away, blinded, by the very force it imagined it could handle.” For Frantz Fanon, by contrast, violence rehumanizes. Violent resistance is the inevitable response to the brutalizing violence inherent in colonial domination. “The colonized man,” he insists, “liberates himself in and through violence.” Can political violence be justified? Is violence always in conflict with political freedom, or is it the only or best means of achieving freedom under conditions of oppression? Do violent means necessarily overwhelm peaceful political ends, or can violence be abandoned once it has been used to bring about a new and more just society? What is the power of nonviolent resistance? To what extent can the concept of violence be expanded beyond physical force to capture social, economic, and linguistic practices? This course examines these questions through close readings of major texts that attempt to theorize the relationship between politics and violence, primarily from the mid-twentieth century.

Cryptography: History and Algorithms

Brian Hill

Flabbergastingly, it is possible for two people to talk to each other while another listens, and for those two people to have a conversation that the third person cannot understand or even hope to understand with all the computer power in the world, and — now we get to the flabbergasting part — to do this with no prearranged code or secrets. The method is called public-key cryptography. It is at the heart of every modern messaging system that has (or claims to have) privacy as one of its features. Interestingly, the method is defeatable, but only if the third person not only can listen in, but can actually intercept and substitute their own messages into the communications channel. This is known as the man-in-the-middle attack. Public key cryptography will be one the final topics in the course, but only after we have progressed through many much-less-advanced schemes. To bring the historical and political importance of the material to life, we will also work through Snowden’s Permanent Record. We will close with some 21st century topics: blockchain, quantum cryptanalysis, and quantum cryptography.

In the age of ubiquitous computers encryption and decryption is all done in software. Therefore we will proceed in our study of cryptography in three ways:

- By learning about the long and steadily advancing history of cryptography
- By studying cryptographic algorithms
- By writing Python code for encryption and decryption

Forms of Evidence and Argument

Caroline Tracey

This course proposal stems from the conversation that I had with CurrCom in my interview in March, in which I shared my conviction that academic/analytic (especially at the undergraduate level) and so-called "public-facing" writing are not distinct genres but rather a spectrum of style, and that both require argument, clarity, and style. The greatest challenge, in either mode, is to make a novel argument and to convey it clearly and elegantly.

Simultaneously, the course responds to a challenge that I felt as a student: that I struggled to make my assigned analytic writing feel necessary and urgent in the way that personal and narrative writing did. Thus, a secondary argument of the syllabus is that by studying texts from the perspective of their argument and evidence, rather than their "genre" or intended public, it becomes possible to make analytic writing personal and urgent, and personal writing argumentative and analytic. The presence of queer theory on the syllabus comes in response to this prerogative: early queer theory offers some particularly stunning models of the use of literature as the evidence to better understand questions that emerge from living in the contemporary world.

To develop our own skills of argument, evidentiary, and expression, In this course we will read texts that engage with a variety of forms of evidence, a variety of forms of argument, and a variety of forms of relationship to the personal. This will include writing that was initially directed at both "academic" and "general" audience (ideas and publics whose nature we will interrogate as we read). Students will leave this course with a clear sense of how to identify an argument, and the tools to develop and sustain their own using evidence (whether it is given, as in analysis of an assigned book, or of their own choosing).

Infinity, Certainty, and Knowledge

Ryan Derby-Talbot

"Whoever undertakes to set [her/]himself up as a judge of Truth and Knowledge is shipwrecked by the laughter of the gods." —Albert Einstein

The word "certain" comes from the Proto-Indo-European root *krei*, which means "to sieve, discriminate, distinguish." Thus, one can be certain when one has effectively parsed a concept or situation into its constituent parts, and thus has a total understanding of how those parts relate and together to give rise to the whole. But how do you know that you have truly understood a situation all the way to its roots (and aren't missing something)? And what if those roots can be infinitely deep? Interestingly, the word *krei* is also the root of the word "crisis" (in the sense of "turning point" or

“judgment”). In this course, we explore three significant crises —one about counting, one about geometry, and one about logic — that have rocked the mathematical world over the past 150 years. These crises resulted from simple but overlooked questions about the nature of number and shape that ended up revealing significant blind spots in the bedrock of computational thinking itself. As we consider these crises, we also consider the larger question of just how humans attempt to build certainty in knowledge, and see how this question ultimately disperses into a cloud between the knowable and the undecidable. Mathematical course topics include: cardinality, Cantor’s Diagonalization Argument, and the Continuum Hypothesis; Euclidean and non-Euclidean geometries; set theory, mathematical formalism, and Gödel’s Incompleteness Theorem. Philosophical course topics include: epistemology; inductive and deductive reasoning; philosophical logic; and Heidegger’s notion of “Being-in-the-world”.

On Time

David McDonald

Time is central to experience. And as mediated by memory, it may be crucial to what it is to be a self—I am compounded of my own past time. In a personal context, time is quite elastic, and very much tied up with subjectivity and consciousness. But time has another aspect, inasmuch as we quantify it for scientific, economic, and social purposes. We find ourselves measuring time, selling our time, obliged to the clock and the calendar. What is the relation of time as subjective duration, to time as an external measure? Is there a way out of such a divided human relation to time? What does it mean to understand oneself through one’s past? What does time have to do with consciousness? What is autobiography for? To take account of the breadth and subtlety of the topic, we’ll read from philosophical, scientific, literary, and religious authors.

States of Exception: American Foreign and Security Policy after 9/11

Anna Feuer

Following the attacks of September 11, 2001, the George W. Bush administration argued that the United States was at war with a “new kind of enemy.” Al Qaeda is a transnational terrorist organization, not a sovereign state with the political authority to wage war; accordingly, U.S officials maintained that al Qaeda detainees would be treated neither as POWs nor as civilians—both categories that enjoy the protections of the Geneva Conventions—but as “unlawful enemy combatants.” The provisions of international law regulating interrogation techniques and the duration of detention would not apply in the context of this unprecedented “war on terror.”

The American response to 9/11 introduced a host of new legal and ethical dilemmas. What does it mean to be “at war” with a globalized non-state terrorist network? Is the war on terror justified in accordance with traditional standards of just cause? Are armed drones capable of adhering to legal

standards of discrimination and proportionality in the conduct of war? This course will explore three areas of international law and political ethics in relation to post-9/11 foreign policy: the jurisprudence of emergency in liberal states, the just war tradition (i.e., the moral and legal justifications for declaring war and the requirements of permissible conduct during combat); and the meaning and aims of terrorism and insurgency. Readings may include: Carl Schmitt's *Political Theology*, Michael Foucault's "Society Must Be Defended," Michael Walzer's *Just and Unjust Wars*, Giorgio Agamben's *State of Exception*, Faisal Devji's *The Terrorist in Search of Humanity*, Mahmood Mamdani's *Good Muslim, Bad Muslim*, and Talal Asad's *On Suicide Bombing*, as well as Kamila Shamsie's novel, *Home Fire*.

Technological MacGyvering with the Arduino

Brian Hill

This course will do virtually every project in two of the kits created to explore the capabilities of the Arduino microprocessors. I am going to quote at length from the project book that goes with the first kit we will be using to explain why learning about the Arduino is both fascinating and important:

Everyone, every day, uses technology. Most of us leave the programming to engineers because we think coding and electronics are complicated and difficult; actually, they can be fun and exciting activities. Thanks to Arduino, designers, artists, hobbyists and students of all ages are learning to create things that light up, move, and respond to people, animals, plants, and the rest of the world. Over the years Arduino has been used as the "brain" in thousands of projects, one more creative than the last. A worldwide community of makers has gathered around this open-source platform, moving from personal computing to personal fabrication, and contributing to a new world of participation, cooperation and sharing.

We will be working with real circuitry (not just software to be downloaded onto the microprocessor). I will be teaching you some of the basics of electricity (voltage, current, power) and circuit elements (resistors, capacitors, diodes). When we get to the Internet of Things, I will be introducing key technologies (HTTP, HTML, CSS, and JSON) in just enough detail that the underlying mechanisms are understandable (rather than magic) and that the students can extend the projects in the kits in new directions. After working through all the projects and these conceptual ideas, we will also have enough time to do special projects of your own design to solve practical campus problems.

The Latin American Dictator Novel

Anton Barba-Kay

"What do you think, you scoundrels? Do you think that the reality of this nation to which I gave birth and which gave birth to me accommodates itself to your phantasmagorias and hallucinations?"--Roa Bastos, *I the Supreme*

Art sometimes thrives to perfection under extremely hostile conditions. Latin America's authoritarian regimes have miraculously afforded the occasion for some of its best writing: the "dictator novel" is a genre that, while based on particular historical guises, investigates authoritarianism as such by adopting or scrutinizing the perspective of the dictator himself. The novels thematically radiate out into broader questions about the nature of power, authority over language, the conditions of violence, and narratives of social reality—they describe the destructive desire for imposing perfect order and its failures. The main novels I propose to read are Asturias' *El Señor Presidente* (1946), Roa Bastos' *I, the Supreme* (1974), Carpentier's *Reasons of State* (1974), García Márquez' *Autumn of the Patriarch* (1975), and Vargas Llosa's *Feast of the Goat* (2000). Several of these authors are central figures in the development of "magical realism," which itself arguably arises in response to the experience of political repression. The course would therefore afford an introduction to one of the most significant veins of postmodern fiction and to the best of Latin American fiction generally. (Three of the authors I've named are Nobel Prize winners.) Given time and interest, we might consider adding or substituting Sarmiento's *Facundo* or Fuentes' *Death of Artemio Cruz*.

Terms 4-5

Drawing On, In, From the Landscape

Christina Mesiti

From the peaks of the Sierra Nevada to the stark desert of Death Valley, Deep Springs exists in a landscape whose images have defined the idea of “wilderness” in imagination as well as practice, for better or worse. Situated between extremes of protected national park “museums” and sites of extractive capitalism, as well as functioning as a ranch itself, the college offers an ideal location to explore the cultural values influencing the way we see and make art about the land. Through drawing with dry and wet materials and those collected from the land itself, the course uses the practice of drawing to feel out what it means to make a landscape image within a complex history of art, politics and land use.

Each week, we will meet to talk and draw together outside. The content of this course emerges from the land itself, the readings, your drawings, and your enthusiastic and bold connections made between these elements and each other.

We will start with an exploration of image making from direct observation. These drawing activities are designed so we can wrap our eyes and hands around some basic drawing principles (contour, shape, proportion, value, space, materiality etc.) specifically as they relate to creating representations of what you see in the place around you. After spring break, we will begin expanding the definition of drawing through alternative media and processes that complicate and potentially redefine what it means to create a representation of a landscape.

Arendt's The Origins of Totalitarianism and Eichmann in Jerusalem

Anna Feuer

In 1951, Hannah Arendt wrote that the Holocaust could only be understood as a “radical evil,” an evil so absolute that it could not be explained by the human motives of greed, cowardice, or lust for power. Ten years later, she changed her mind. In a letter to the scholar Gershom Scholem, Arendt admitted, “[I] no longer speak of ‘radical evil’...It is indeed my opinion now that evil is never ‘radical,’ that it is only extreme, and that it possesses neither depth nor any demonic dimension.” The evil committed by Nazi functionaries was banal, not radical; its perpetrators were not monsters but men whose crimes reflected an “inability to think.”

Thought-defying evil is the subject of Arendt’s magnum opus, *The Origins of Totalitarianism* (1951), and her classic and controversial report on the trial of the Nazi Adolf Eichmann, *Eichmann in Jerusalem* (1963). Divided into three sections—on antisemitism, imperialism, and totalitarianism—

Origins is a ranging account of the unprecedented nature of twentieth-century authoritarian politics and the conditions that enable the previously unthinkable to come about. It is, I believe, the single best text with which to confront the crises of our own political moment: the contradictions of liberal egalitarianism, the consequences of uninhibited wealth accumulation, the legacies of European imperialism, and the dangers of “post-truth” politics. In considering how a “terrifyingly normal” bureaucrat came to commit atrocities, Eichmann is a meditation on thinking as a moral responsibility and our only defense against subjugation. This course will entail close readings of these texts, two of the richest and most profound works of political analysis of the twentieth century.

Heavenly Mathematics

Brian Hill, Ryan Derby-Talbot

The study of trigonometry — the relationship between the measurement of angles and lines — finds a natural home on the sphere. Describing both the celestial motion of the stars and the terrestrial relationship of points on the earth, spherical trigonometry is as timeless a mathematical subject as they come, laying out a self-contained world of unique and surprising results and applications. This course will be an exploration of the results of spherical trigonometry from some of the first, very crafty results known to the ancients all the way to the methods of celestial navigation that remained in wide use up through the 1950s.

Modeling, Rendering, and Simulation

Brian Hill

We gain a tremendous amount of intuition by putting the laws of physics (or other laws, such as the laws governing population dynamics) onto the computer and seeing what evolves. In other words, we model nature and simulate it. The output of the simulations becomes especially compelling when it is rendered graphically. The Nature of Code by Daniel Shiffman is a text that uses the language of Java to do modeling, simulation, and rendering. We will begin with the basics of Java and then we will cover a rich variety of topics from The Nature of Code:

- Vectors and Forces
- Newton’s Laws of Motion applied to Oscillation and Gravitation Multi-Particle Systems
- Cellular Automata and Fractals
- Neural Networks

Rivers of Life and Death

Sue Darlington

Rivers are sites of contention in how they can best serve the people living along them and the nations through which they flow. For some, they provide cultural meanings and livelihoods; for others, they represent progress and development. We will critically examine a set of case studies to unpack the cultural, environmental, economic, and identity conflicts that arise worldwide as people's concepts of rivers collide. Issues explored will include indigenous histories and concepts of nature and rivers; water rights in the U.S.; colonization, trade, and nationalism; economic development and dams; environmental debates; and transnationalism. Rivers we will look at are the Payahuunadü [Owens], the Yamuna, and the Mekong, each holding different stories of cultural and spiritual meaning, conflict, development, and environmentalism. Theories from anthropology, history, economics, and human rights will inform our explorations of these rivers and their controversies.

Tocqueville's *Democracy in America*

Anna Feuer

Writing in the wake of the French Revolution of 1830, Alexis de Tocqueville saw the expansion of democracy as fated. "It is daily passing beyond human control," he affirmed. "Whither, then, are we going?" *Democracy in America* reflects Tocqueville's great enthusiasm for the new liberal order and his persistent anxiety about its homogenizing tendencies. On the one hand, he admires Americans' participatory citizenship, the vitality of their local associations, and their rejection of European class prejudices. On the other, he worries that the progress of equality will intensify American predispositions toward bourgeois individualism, producing a stupefied, politically disinterested populace. American democracy, he explains, lends itself too easily to a soft despotism that reduces the electorate to a "a flock of timid and industrious animals, of which the government is the shepherd." Tocqueville's unsurpassed account of the dangers inherent in the egalitarian ideal, his playful observations about Americans' peculiar customs and tastes, and his unsparing account of slavery makes *Democracy in America* the best text with which to think about the theory and practice of democracy.

Wittgenstein's *Philosophical Investigations*

Nicholas Gooding

Wittgenstein's *Philosophical Investigations* is a strange book, unlike any other work of philosophy ever written. It is composed of a series of 693 "philosophical remarks," which range from simple observations to elusive parables, from the construction of "language games" to gnomic aphorisms. Wittgenstein adopts this method of indirection as an alternative to developing philosophical theories—in particular, theories concerning the nature of meaning or the mind. He believes that the

desire for such a theory is itself the result of a philosophical mistake, due to philosophers' tendency to examine philosophical questions in abstraction from the way in which they grow out of concrete, social human practices, or what he calls our "form of life." Wittgenstein wants to bring our attention back to these practices themselves. He believes that only in this way can we illuminate questions about what it is to speak a language (rather than make noises); to perceive (rather than react mechanically to stimuli); to act intentionally (rather than be caused to move); to experience an emotion; to know a fact, or how another person feels, or oneself; and, most generally, to have a mind or to be a person. Wittgenstein said, "I should not like my writing to spare other people the trouble of thinking, but...to stimulate someone to thoughts of their own." In this, if in anything, Wittgenstein has succeeded. Of course, to read a text from the history of philosophy is always to do philosophy, rather than simply to learn about someone's philosophical doctrines. But this is especially true of Wittgenstein, precisely because he has no doctrines. What he has, rather, is a particular way of approaching philosophical questions. We will try to follow him in the use of that approach and see where it leads us.

Term 5 only

Observational Astronomy

Brian Hill

This course is designed to be as rapid as possible an introduction to both visual telescopic astronomy and scientific astronomy using the College's newly-created observatory. In the classroom portion of the course, we will start with the basics, which are the celestial coordinate system and the magnitude system. In our night labs, we will start with manual operation of a German Equatorial mount telescope. In subsequent labs, we will learn computer operation of the telescope, and we will briefly do astrophotography before transitioning to scientific work. For the final three weeks of our seven week course we will focus exclusively on variable star astronomy. Specifically, we will obtain our own data for eclipsing binary and exoplanet targets. In the classroom part of the course, in the final three weeks, students will learn how to process the data into light curves, which is the standard way for presenting data about variable stars.

Term 6

African American History

Dana Grisby

The purpose of this course is to examine the experiences of African American people in the United States from post-Civil War to 1945. Some prominent themes include the end of the Civil War, Reconstruction and the emergence of Black national leadership, the development of protest and resistance strategies, Black Nationalism, functions of racism and anti-Blackness, the evolution of Black cultures, and discussions of black identities.

Ways of Learning: Building the Traditional Japanese Boat

Douglas Brooks

Two processes are happening simultaneously throughout my course: first, students are collectively building a boat together, slowly mastering a series of skills which are unfamiliar to all of them; and second, they are grappling with an entirely new learning style, one that demands their fullest concentration and powers of observation. Throughout the course they are reflecting on this process, its rewards and frustrations, in their journals and in regular class discussions. Ultimately, from this process they find a topic to engage with in their final paper.

At the outset readings include *A Basketmaker in Rural Japan* and selected sections of *Japanese Wooden Boatbuilding*. The former introduces the traditional apprentice system from an anthropological viewpoint while the latter provides an overview of the specific craft of boatbuilding. Students begin constructing the keel/backbone of one or more boats. They begin journaling, something they will do the duration of the class. I provide very close readings and feedback on the journals. Because of the silent classroom the journals help students communicate with me, and from my readings I sometimes offer targeted questions for the journals or set aside time for discussions. Students read from *The Way of the Carpenter* and *Teaching and Learning in the Rinzaï Sect Monastery*. The latter is the foundational reading for the course and we set aside significant time to discuss this text and we return to it throughout the term. Also the second week I ask students to hand in a one-page synopsis of their final paper. This is malleable but students must discuss any changes with me. We continue building the boat, now preparing the side planking. This requires mastery of new tools such as planes and chisels, and the all-important skill of sharpening. Each student will spend many hours sharpening and honing the chisels and planes. Journals continued to be collected weekly or more often for comment. At this point in past classes students have commented on the adjustments they have had to make with regard to the learning method. Many discuss issues around fear of failure and their sense of intense competition in their “normal” classes. By this point many if not most begin to find the silence extremely attractive, safe, and ultimately liberating.

Japanese Woodworking Tools: Their Tradition, Spirit and Use, is an important text helping students understand the intricacies, use, and care of the tools they are using. By this point we have established a nearly silent classroom. The days begin with the briefest of descriptions/discussions of the task at hand but more often I simply demonstrate what has to be done and it is up to the students to observe me and then take up the task themselves.

Paradise Lost and Epic Failure

Katie Kadue

John Milton's *Paradise Lost* is a poetic masterpiece: it is, in my opinion, the best work of literature in English, and one that the author somehow pulled off while blind and destitute. But this massive achievement is about, in many ways, failure. Milton's characters fail morally, intellectually, aesthetically, and politically; Milton's own most notable failure was the revolution he enthusiastically participated in during the 1640s and watched utterly fall apart, nearly at the expense of Milton's own life, in 1660. The gamble of this poem—both aesthetically and theologically—is that something good can come out of even the most abject failure.

This course will be devoted to the close reading of *Paradise Lost*, and our focus on failure will only be a lens on the poem's many other themes, such as creation, temptation, love, marriage, reading, experiment, knowledge, forgiveness, gender, disability, rebellion, hierarchy, colonialism, work, astronomy, and more. To enhance our reading, we may briefly refer to Milton's earlier poetry and political writing, as well as his classical, biblical, and contemporary sources.

Thermodynamics and Earth Systems, Local to Global

Ben Holtzman

Thermodynamics is the study of systems undergoing change. What are "systems"? What is "change?" Both of those definitions can be cast in terms of energy and entropy. We will develop these ideas in classical thermodynamics, and read and discuss how they came to be, starting with engineering problems in the 18th century, and then how they merged with physics in the 19th and 20th centuries. Then we will discuss modern ideas on the thermodynamics of irreversible processes, open systems, out of equilibrium, which is a far more general, applicable and incomplete branch of physics that is attempting to explain emergent (often network-like) patterns that are ubiquitous in nature. We will read "Three Laws of Nature: A Little Book on Thermodynamics", by Stephen Berry, and some additional sections of other books and original papers. We will explore some of these concepts with simple electrical machines, some measurements in the classroom and on campus, and some math and calculations, in a way that I intend to be accessible for anyone.

The Earth itself is an open thermodynamic system. The heat source is the planet's core; that energy drives mantle convection, which drives the movement of tectonic plates as the heat escapes and radiates out to space. At every scale downward to the scale of individual crystals, the patterns we see are expressions of gradients in some form of energy (thermal, chemical, mechanical). The other major source of energy is that from the sun, that feeds the patterns in the atmosphere and oceans. These two sources of energy interact on long timescales. We will study local examples: patterns in the Valley generated by open thermodynamic systems transporting energy down a gradient, namely networks of streams (intermittent drainage networks). We will observe the patterns and the landscape, and think about the forces at play, the energy gradients that are interacting to produce the landscape, from the Valley to the Sierra Nevada and the Basin and Range structures that reflect the dynamics of heat flow through the western part of the North American plate. Magmatic systems-- the roots of volcanoes and the granite plutons that form the Sierra Nevada-- are visible in the region as well. These structures are also patterns generated by energy gradients. Thermodynamics of non-equilibrium, open systems provides a conceptual and mathematical framework to understand all of these processes. We will spend four weeks moving between the observations of patterns and the theoretical concepts, with focus on a few processes across this vast range of length and time scales, using assembled texts and original sources, and at least some small-scale, local field work.

2022-2023

Term 1

Freedom and Community: The Problem of Living Together

(English, Ethics, Literature & Poetry, Philosophy, Writing, Political Theory, Social Science)

Instructors: Anna Feuer, Sharon Schuman, Rory O'Hollaren (writing tutor)

Freedom is not only one among the many problems and phenomena of the political realm properly speaking, such as justice, or power, or equality; freedom...is actually the reason that men live together in political organization at all. Without it, political life as such would be meaningless. (Hannah Arendt, "What is Freedom?", 1961) For Hannah Arendt, freedom is the *raison d'être* of politics—the very substance of our efforts at speech and action in the public sphere. The ancient Greeks and Romans, Arendt tells us, experienced freedom as achievable only through the chosen action of a community of equals. Freedom was realized in the polis, the common field of political activity in which men did the difficult work of figuring out how to live together with others. But Arendt herself admits that this vision of freedom seems entirely inaccessible to us moderns. We are inclined, instead, to understand freedom as individual autonomy in the private sphere—freedom of thought, freedom of choice, freedom from the scrutiny and demands of public life.

This course considers the relationship between freedom and community. What do we mean by that most hackneyed of terms, "freedom?" (Adrienne Rich: "In the vocabulary kidnapped from liberatory politics, no word has been so pimped as freedom.") Should we understand freedom as proper to the public realm or to the domain of private conscience—in other words, does freedom begin or end with politics (whatever "politics" means)? To what extent and in what ways does freedom require intercourse with others who are different from ourselves? What role does the writer, artist, and philosopher play in helping us realize our freedoms? What should we want to recover, if anything, from ancient notions of freedom, and how would we do so under the conditions of modern liberalism? And what justifies freedom in our age of modern administration and technological automation?

One of the difficulties in thinking about these questions is that they are everywhere present in the history of Western political thought. In order to focus our discussion, we have singled out two relatively self-contained—and, in our view, mutual and consonant—traditions: ancient Greek and Black American thought. Beginning with Homer's *Iliad* and a series of Platonic dialogues, we will

examine ancient conceptions of freedom as provided by the public space of communal deliberation. We will then turn to three major Black American thinkers—W.E.B. DuBois, James Baldwin, and Toni Morrison—who are likewise concerned with freedom as something more than the acquisition of liberal rights.

Terms 2-3

A Modern Mass Extinction

(Environmental Science)

Instructor: Elizabeth Roripaugh

This course will follow a traditional, undergraduate-level environmental science curriculum exploring Earth's life support systems and biodiversity, including the many ways in which these are threatened in the modern world. We will use Miller and Spoolman's 18th AP Edition of *Living in the Environment* to investigate the science behind topics of habitat fragmentation, invasive species, population growth, pollution, and overharvesting in the context of the idea that the Earth is undergoing what many believe to be its sixth mass extinction event. To accomplish this, students will read about and conduct inquiry exercises in the various topics of geology, paleontology, biology, geochemistry, planetary science, and human psychology. In addition, this course will also utilize the texts *Thinking Fast and Slow* written by Daniel Kahneman and *Imagining Extinction* by Ursula Heise to explore the idea that human psychology and cultural heritage are important, perhaps the most important, drivers of how successfully humans interact with their environment. During the latter part of the course, students will read and present an oral presentation on a book exploring a particular aspect of today's environmental movement.

Buddhist Life – Anthropology of Religion

(Anthropology, Religious Studies)

Instructor: Sue Darlington

What does it mean to live a Buddhist life? Religion in the west is often thought of as a set of scriptures, proscriptions, and conscriptions. Yet religion exists beyond the page. How people interpret and practice the teachings bring the texts of a religion to life. Through an anthropological lens (versus a religious studies lens), this course will examine core Buddhist teachings from the period they emerged in India and how the religion adapted to and was adopted by diverse societies. Buddhist texts were not written down for almost 500 years after the life of the Buddha. Different schools of thought within Buddhism debate which texts are "authentic," and which are culturally informed overtime.

The course will focus on contemporary Theravadin Southeast Asia (especially Thailand) and a bit on Tibet to investigate a range of ways Buddhists interpret Buddhist scriptures and put them into practice in dialogue with various means of understanding and interacting with the world. The main premise underlying the course is the tension between Buddhism as a textual versus a lived religion. To explore

this tension, we will look at intersections of text (scriptures, teachings, stories such as the Jataka Tales, etc.) and social behavior. Note that most people in the world who call themselves Buddhist have never read the scriptures or teachings that have been attributed to the Buddha. Instead, they learn from monks, stories, and rituals, all of which are heavily influenced by the cultural and historical contexts within which people live. Through ethnographic and historical sources, we will explore these tensions and intersections to understand Buddhism as a lived religion in Southeast Asia.

Classical Philosophy

(Philosophy, Religious Studies)

Instructor: J. Gary Elliott

I say that it is the greatest good for a man to discuss virtue every day . . . for the unexamined life is not worth living.

~ Socrates

Philosophy begins in wonder. And, at the end, when philosophic thought has done its best, the wonder remains.

~ Alfred North Whitehead

The study of philosophy is an important part of a liberal education, and perhaps, as the above quotes indicate, an even more important part of life. Separated by more than 2,000 years, these statements get to the heart of philosophical inquiry, yet they seem to raise more questions than they answer. What is “the greatest good,” what is “virtue,” and what does it mean to examine one’s life? If we both begin and end an inquiry in wonder, what have we accomplished? These are but some of the fundamental questions that the study of Philosophy addresses. It serves the goals of a liberal studies education by pursuing thought that is both rigorous and creative, essential elements of success across disciplines. It also serves the individual by providing the means to live a thoughtful life.

Classical Philosophy is an upper division seminar in which students and faculty read and discuss a selection of ancient texts from both the western and eastern traditions. The discussion may take different forms, sometimes devoted to accurate interpretation, staying close to the text, at other times ranging widely over the topics that the readings suggest. The goal is not to collect information or to give right answers. Rather, it is to read carefully and to share insights, appreciations, reservations or questions with the seminar in an effort to give each text the serious consideration it deserves. The ultimate aim of the dialogue is deeper understanding of the text, of the world, and of the self among a community of inquirers bound by common human interests.

This course examines the beginnings of philosophical inquiry in the western and eastern traditions. First, we study the ancient texts of Egypt and Mesopotamia, then we turn to the remarkable 6th century BCE, sometimes called “the axial period,” when important philosophers appeared in India,

China, the Middle East, and Greece. We will examine the works of Confucius, the Taoists, later India, and the explosion of talented philosophers in Greece. The works of Plato and Aristotle will occupy the second half of the semester. Important questions and themes to be examined include: the origins of creation; the nature of justice and law; the tension between social and familial duty; the pursuit of the good life; and how philosophy might be distinguished from religion.

Combinatorics

(Mathematics)

Instructor: Ryan Derby-Talbot

Combinatorics is an intermediate level undergraduate mathematics course that develops techniques and theorems for approaching a range of problems in discrete mathematics. Combinatorial problems are often simple to state — e.g., how many possible sudoku puzzles are there? Can a knight complete a full tour of every square of a chessboard once and return back to its starting position? Given a set of n points on a plane, what is the shortest possible length of a set of line segments that connects all of the points? Nonetheless, combinatorial problems can range from simple to very difficult to solve. In this course you will develop an understanding of fundamental ideas and knowledge in the mathematical subject of combinatorics. A course like this is commonly found in mathematics and computer science programs, serving as a bridge from introductory-level college mathematics courses to more advanced proof-based mathematics courses.

English Composition

(Writing, English, Literature and Poetry, Rhetoric)

Instructor: Antón Barba-Kay

The Greek word *logos* means at once “word,” “argument,” “speech,” and “thought.” While this course will (like any other such course) emphasize the mechanical aspects of writing, we will also concentrate on the indissoluble connection between what is sayable, writable, and thinkable. I propose to do this through a close reading of two closely related plays about this issue— Shakespeare’s *King Lear* and Beckett’s *Endgame*—followed by study of a series of classic scholarly essays about these plays. We will be discussing and writing about the criteria both for aesthetic success (by attending to how artful writing may bespeak what it is beyond the power of words to say) and for textual interpretation (by elucidating better and worse ways of articulating this success). We will therefore be working with one foot in philosophy and another in literature.

From Galileo to Newton: The Emergence of Modern Physical Science

(Physics)

Instructor: Brian Hill

Our goal is to work through all of the central arguments in Newton's Principia. The 17th century saw the birth of modern physical science, wherein increasingly accurate laboratory measurements and increasingly well-formulated, sophisticated, and beautiful theoretical developments confront each other. The century begins with Galileo, Brahe, and Kepler, but its grand synthesis is by Newton, and to this day every aspiring engineer, physicist, chemist, and astronomer begins by learning Newton's Laws (his Three Laws of Motion and his Law of Universal Gravitation) and their consequences.

We will use a translated and annotated version of Newton's Principia (the original is in Latin): Newton's Principia, The Central Argument, by Dana Densmore, Third Edition. Newton's Principia presupposes an understanding of parts of Euclid's Elements, Apollonius's On Conic Sections, and Galileo's Two New Sciences. We would therefore supplement our study of the Principia with the necessary excerpts from these other works.

Newton's Laws have since been modified in very specific domains by quantum mechanics, special relativity, and general relativity, but where quantum or relativistic effects are not important, they remain pre-eminent, unmodified, and unchallenged, and if one wishes to rigorously understand the quantum or relativistic modifications, one still starts with Newton.

It might be exhausting to read propositions, corollaries, lemmas, and proofs, but the reward is to understand the laws of motion, including celestial mechanics, as Newton presented them. Much of the class time will consist of students presenting proofs. It will be tricky for me to develop problems to go along with the texts, since Newton intended his proofs to be completely self-contained and his presentation is aimed at his colleagues, not at students. However, proofs without problems and examples would be like learning about ranching without coming into contact with any rangeland or cows, so we will need to develop and work some illustrative problems as we read the text.

Numerical Analysis on a Pocket Calculator

(Mathematics (Applied), Computer Science)

Instructor: Brian Hill

Numerical methods are procedures for arriving at approximate answers. A simple example is square roots. We know that the square root of 9 is 3. What is the square root of 10 though? What procedure would one follow, somewhat analogous to long division, to arrive at an answer? It isn't obvious at all! Some kind of trial and error is in order, but how is that systematized? Newton had a procedure, and we will learn it in this course. Of course he didn't have a programmable calculator. So the next question is, with a programmable calculator, how can one efficiently automate Newton's procedure? Or, since your calculator has a square root key, for this particular example, you might wonder, how does the calculator get the answer? We will investigate these questions using smartphone emulations of the HP-25 calculator. Four subjects will emerge:

1. Operation and programming of a stack-based calculator, the Hewlett-Packard 25
2. General applications that were in the calculator's target market: games, finance, navigation, and surveying
3. Statistics: linear regression, exponential, logarithmic, and power law curve fitting, standard deviations and correlation coefficients (r-squared), t-test and χ -squared hypothesis tests
4. Numerical analysis: Newton's root-finding method, Euler's method for first-order differential equations, numerical integration

There is a rich variety of background needed to deeply understand these subjects. Our classes will have a mix of developing the needed background and programming the Hewlett-Packard 25. In other words, we will constantly mix theory with concrete and pragmatic considerations. The subjects are influenced by what Hewlett-Packard considered to be the HP-25's target market and by the capabilities of the calculator. This peculiar combination of constraints means that we will be taking a tour of a wide variety of subjects that mattered to practicing scientists and engineers in the mid-1970s. These subjects matter just as much today.

The Ethics of Sex, Gender, and Reproduction

(Ethics, Gender & Cultural Studies, Political Theory)

Instructor: Joan O'Brian

There isn't much that unites feminists today. There's no agreement on the movement's goal (is it equality or liberation?), its subject (what is a woman?), or its policies (sex work decriminalization or the Nordic model? UBI or Wages for Housework?). Perhaps the only thing that feminist theorists still have in common is the sense that they are all working on issues in roughly the same problem space: feminists are concerned with the problems of sex, gender, and reproduction.

In this course, we will explore the great diversity of feminist approaches to the ethical dilemmas found in this sphere of life. Must one be pro-choice to be feminist? How should we ideally reproduce? What does sex mean: spiritually, physically, and socially? What kinds of labor deserve compensation, and who ought to do which forms? And what should humans think of their bodies; how much control should we have over our own corporeality? We'll combine classic and contemporary feminist texts with papers from a range of normative subfields (bioethics, metaethics, and political theory, among others) to investigate these questions.

The Nineteenth-Century Russian Novel

(Literature & Poetry)

Instructor: William Ramsay

In "Some words about *War and Peace*," Leo Tolstoy observed that *War and Peace* was not a novel; indeed, none of the great works of Russian fiction were, he claimed, novels: "The history of Russian literature since the time of Pushkin," he wrote, "not merely affords many examples of such deviations from European forms, but does not offer a single example of the contrary. From Gogol's *Dead Souls* to Dostoevsky's *House of the Dead* in the recent period of Russian literature there is not a single artistic prose work, rising at all above mediocrity, which quite fits into the form of a novel, epic, or story." In this course, we will read four of these daring contributions to world literature. Starting with Alexander Pushkin's novel-in-verse *Eugene Onegin* (1833), we will continue with Nikolai Gogol's terrifying comedy *Dead Souls* (1842) and Ivan Turgenev's moving study of nihilism and friendship *Fathers and Sons* (1862), before devoting the second half of the semester to Tolstoy's own *Anna Karenina*, considered by many to be the best novel ever written. Keeping an attentive eye on the details of these works, we will discuss artistry, form, and--what can seem inescapable when reading Russian literature--the human condition.

Courses Spring 2023:

Kierkegaard's Enten-Eller - Antón Barba-Kay

Whatever can be done while poetry and philosophy are separated has been accomplished. So the time has come to unite the two. (Schlegel)

No one knew what to make of *Either/Or* when it appeared (under the pseudonym “Victor Eremita”—i.e. “Victor the Hermit”) in 1843. It is at once a serious work of philosophy and a brilliant work of literary fiction in the form of an epistolary exchange between two characters who offer contrasting answers to the question of how to live. The first half (by an author denoted simply as “A”) consists of a series of disconnected sketches about how to transform one’s life into a work of art—how to lead a life full of interesting pathos, beautiful transience, and variety of experience. (The longest portion of this half, the “Seducer’s Diary,” is what early readers were greediest for.) The second half is written in the voice of Judge William, who, in his earnest attempt to save “A” from himself, responds to him with the loveliest encomium of marriage ever written. But it is not clear who is in the right. Kierkegaard (like Plato) does not show his own hand, leaving it to the reader to work out for him or herself whether one or both of these positions (“aesthetic” and “ethical,” respectively) can be the true one, and how, by extension, to judge the best life.

Given the time, we will supplement a careful reading of *Either/Or* with a briefer study of *Fear and Trembling*, in which Kierkegaard presents a third stage, the “religious,” under a different pseudonym. The relation between these three “stages” or “spheres” makes up the heart of Kierkegaard’s philosophical preoccupation, so that the course will serve as a general introduction to the thought and method of one of the most incandescent thinkers of the nineteenth century.

Cosmology and Black Holes - Brian Hill

Categorization: Closer to Deep dive than Survey Accessible <===|==+|===> Hard

Overview

In two momentous leaps, Einstein discovered that space and time are not what we thought them to be. They are intertwined. I cannot explain how they are intertwined in this overview. If I could, there would be no need for a course. You have never experienced this intertwining, because it only becomes apparent when either (a) you are moving at near the speed of light, or (b) you are in the vicinity of an object even larger and denser than our Sun. The intertwining is highly counterintuitive. We call the intertwined fabric of space and time, “spacetime.”

More than anyone else since Einstein, John Archibald Wheeler has influenced our understanding of spacetime. He is a co-author on the greatest textbooks in the field and his students have gone on to advance the subject dramatically. Most notable, perhaps is his student, Kip Thorne.

We will work through Wheeler’s and Thorne’s descriptions of three things: (1) special relativity, which is how space and time are related in the absence of gravity, (2) the behavior of spacetime around a black hole, and (3) the behavior of the spacetime of the entire universe, which is the subject of cosmology.

Materials

We will draw from:

John Archibald Wheeler: *Gravity and Spacetime*

Kip Thorne: *Black Holes and Time Warps*

Edwin Taylor and John Archibald Wheeler: *Spacetime Physics, 2nd Edition*

Selected modern papers on gravitational waves and cosmology.

Activities

This subject is fraught due to its counter-intuitiveness. At some very deep level, it is simple, but to get to that depth, you have to rewire your intuition. This is very hard to do. It is as if a table has been knocked over and yet you are still supposed to figure out a way to put place settings on it. We will do problem after problem in an attempt to rebuild your intuition in the relativistic world. Your most basic and cherished notions, for example that a clock can unambiguously tell the time will have to be dashed and reconstructed. Class time will be about disentangling misconceptions and doing example problems. Homework will be reading and problem sets. Exams will be problems directly relating to those problems assigned on problem sets.

History and Science of the Manhattan Project - Brian Hill

Categorization: Survey Accessible <=+=|===|===> Hard

Overview

The Manhattan project is a chance to look simultaneously at the almost unbelievable scientific and technological developments which came in rapid succession just before, during, and after WWII, and at their historic consequences. The fundamental science begins in the late 1800s with the discovery of natural radioactivity (by Becquerel and the Curies), the development of controlled fission (Fermi's atomic pile), and the possibility of fission explosions (the atomic bomb). The history includes the race to make weapons based on fission, the destruction of two cities, and the setting of the stage for the superpower stalemate that has continued with slowly shifting boundaries decade after decade ever since. A study of the Manhattan Project is not just an opportunity to study momentous scientific developments and past events. Its ongoing significance makes it nearly a duty to understand what we have collectively created. By the end of the course, each person will have their own response to the events and the resulting situation.

Primary Materials

Bruce Cameron Reed: *The History and Science of the Manhattan Project, 2nd Edition.*

Robert Serber: *The Los Alamos Primer.* This is the physics of the atomic bomb as it was presented to scientists as they arrived in Los Alamos in the early 1940s.

Activities

The principle activity will be of reading the development of nuclear science and technology in its historical order. Problem sets and exams will endeavor to illustrate the science. As the course nears its end and most of the science and history are behind us, we can turn to one or both of these modern topics (1) the role of nuclear energy in a transition off of hydrocarbons (2) The current superpower stalemate and the threat of nuclear war. We will also be able to have informed ethical discussions once we have thoroughly understood the history and science.

Shakespeare's Plays - Will Ramsay

In this intensive course, students will read and discuss several of Shakespeare's plays. The goal is primarily two-fold: to become more fluent in Shakespeare's language and to understand how Shakespeare constructs his plays. Apart from an introductory lecture explaining the Elizabethan and Jacobean theater, each session will typically be dedicated to discussing a play. For each session, students will be expected to read each play, preferably twice, outline each play, and to read two or three supplementary articles. There will be a two-day midterm and a two-day final.

A tentative schedule of plays is:

1. The Comedy of Errors
2. A Midsummer Night's Dream
3. The Tempest
4. Macbeth
5. The Two Gentlemen of Verona
6. Julius Caesar
7. Twelfth Night
8. King John
9. The Taming of the Shrew
10. Much Ado About Nothing
11. As You Like It
12. Richard II
13. Henry IV, Part 1
14. Antony and Cleopatra
15. The Winter's Tale
16. Henry IV, Part 2
17. Troilus and Cressida
18. Othello
19. Coriolanus
20. Hamlet

Simone Weil and Hannah Arendt: Work and Politics – William Tilleczek

This class brings together two contemporary philosophers and social critics, Simone Weil (1909-1943) and Hannah Arendt (1906-1975), both of whom abhorred the violent totalitarianisms of their time, reflected on the possibilities of a post-Marxist politics, and above all theorized the meaning of labour and work in human life. Simone Weil, a French mystic, ascetic, activist, and philosopher, was deeply dedicated to understanding working-class life and labour. She subjected herself to grueling factory work to experience this world firsthand, and took up and expanded Marxist notions like alienated labour to come to terms with the violence it represented for the body and mind of workers. Weil died at the young age of 34, but left behind a plethora of treatises, letters, and *cahiers* (notebooks), from which we will read select texts such as “On the Contradictions of Marxism,” “Experience of Factory Life,” and “The *Iliad*, or the Poem of Force.” Hannah Arendt, a German-born philosopher (or rather, as she herself preferred, *political theorist*), wrote much of her work in the United States during and after the Second World War. In her *Human Condition* (1958) – which we will read in its entirety – Arendt proposes a new framework for understanding human activity as *labour*, *work*, and *action*. These terms are meant to describe the production of the necessities of human life, the construction of a human ‘world,’ and the properly political activity of acting in public, respectively. Our goal will be what the French call a “lecture croisée” (a crossed- or comparative-reading) of these two *oeuvres*; major themes and questions will be the relation between Arendt, Weil, and Marx; the role of antiquity in the thought of Weil and Arendt; the relation between labour, work, and other forms of human practice (asceticism or *action*, for example); and the pertinence of these thinkers for the reality of labour in our current neoliberal economy.

Painting - Justin Kim

An introductory painting course – students are given a thorough background in fundamental technical skills and formal issues, then build on these skills while exploring a range of subjects including the figure, still life, landscape, portrait, narrative, memory and abstraction. Class assignments emphasize an awareness of “process” – how you go about solving problems / making a picture – and what it says about you: your strengths and weaknesses, what you like and dislike, what interests you, etc. Individual and group critiques of students’ work will be held regularly. Students will use this information to inform other assignments, culminating in individual bodies of work to be designed and executed at the end of the semester.

Presentations of artists and movements will accompany some assignments when relevant. Group critique will be held regularly.

Readings:

Mathews, “For Prizewinners”

Bate, “Negative Capability, The Intuitive Approach in Keats”

Objectives:

- To give students a foundation in essential technical skills: drawing, light and value, pictorial construction, color, space, etc.
- To give students a basic background in the historical context of painting, with emphasis on the past 100 years
- To give students experience in analyzing and reading their own work through both individual and group critiques

Evaluation:

Students will be evaluated on their progress over the course of the semester – taking into account that students will come to the course with a range of previous experience and abilities. Completion of all assignments and participation in class critiques are mandatory.

The Salon (Writing Intensive) - Annelise Gelman

This is a poetry workshop with a special (but not exclusive) emphasis on multimedia, experimental, conceptual, research-based, or otherwise “expanded” poetics—approaches to poem-making that challenge our ideas about what poetry can be and do. We’ll probe the porous boundaries between poetry and other artforms, with a heavy emphasis on ekphrastic work (writing in response to other works of art): We’ll look at poetry-films, we’ll write poems in response to music and dance, we’ll draw even if we can’t draw.

While The Salon is focused on the “traditional” ingredients of poetry and the kind of work you might find in a contemporary literary journal—“poetry-as-such”—Expanded Poetics focuses on finding poetic inspiration in less “literary” places. Students will finish the class with a broad understanding of poetry’s allegiance with art (and knowledge-production) at large & the capacities of poetry to embody spatial/material/temporal/social concerns. We will also make work during class together, devoting sessions to field trips and scavenger hunts; cutting up and rearranging other people’s writing; “devised poems” that draw on improvisation and playing with new technology; and so on.

Students will be expected to keep a semester-long daybook with drafts, notes, quotes, ideas, and assigned exercises. Assignments will be discussed in class and tailored to each student, with the goal of producing at least one polished “expanded” poetry project, such as an illustrated poetry zine, a poetry-film, a sound piece that includes language and other acoustic elements, a curatorial proposal, a text score or performance script, etc. Depending on everyone’s interests, we can also pursue one or more collective/collaborative projects as a class. Students are also invited to participate in directing, curating, & writing with *Midst* (www.midst.press), a project designed to reveal the writing processes of contemporary poets.

Possible encounters:

- *Truth in Comedy*—Charna Halpern, Del Close, and Kim Johnson
- Robert Ashley, Eric Whitacre, Pauline Oliveros, Alvin Lucier
- Young-Hae Chang Heavy Industries
- M Nourbese Philip, *Zong!*
- Yoko Ono, *Grapefruit*
- Jen Bervin, *Silk Poems*
- Giorgio Agamben, *What is the contemporary?*
- Jenny Holzer, Glenn Ligon, Otobong Nkonga, Ed Ruscha, Trisha Brown, Tracie Morris, Chris Marker, Stan Brakhage...
- Book arts basics, field trips, darkroom lessons, improv exercises, “AI” art, Wim Hof breathing...

Humans and Other Animals - David Egan

What does it mean to be human? Attempts to answer this question often draw comparisons with animals: we're animals too, but animals of a very special kind. The aim of this course is to think about what we are as human beings by considering the way we think about our relation to other animals.

Questions we'll ask include: What relevant differences (if any) might distinguish us from other animals? How do categories like natural/unnatural or wild/domesticated shape our understanding of other animals, and how do they shape our understanding of ourselves? In what ways and to what extent can the sorts of relationships that exist between humans (e.g. friendship, political community, sexual love) exist between a human being and an animal of another species? And with these questions in mind, we'll consider some of the uses to which animals are put—as food, as pets, etc.—and ask what sorts of limits we ought to draw to their use in these contexts. I'll want to connect the course materials to the labor pillar at Deep Springs by considering not just ethical questions regarding animal husbandry, but also the more personal question about how this intimate relationship with other animals shapes our self-understanding.

The readings from the course will include philosophers (Aristotle, René Descartes, Friedrich Nietzsche, Emmanuel Levinas, Martin Heidegger, Mary Midgley, Peter Singer, Sue Donaldson and Will Kymlicka, Cora Diamond, Raimond Gaita), social scientists and theorists (Sherri Ortner, Carol J. Adams, Yi-Fu Tuan, Mary Douglas), and writers of fiction (Jonathan Swift, Franz Kafka, David Foster Wallace, J. M. Coetzee). The names in parenthesis are suggestive—I may not include all of them on the final syllabus and will probably include other authors I haven't mentioned.

Real Analysis - Ryan Derby-Talbot

One of the most significant realizations of the 19th century – an observation that shaped much of the development of modern mathematics – is the fact that Calculus fails. It's true. The fundamental tools of Calculus – the limit, derivative, the integral, and the power series, those jewels in the crown of science and engineering, those tried and true mathematical methods and their crazy rules we force students to learn – end up having simple problems they can't answer. And it gets worse, as it turns out they can't answer *most* problems. Indeed, Calculus only works in situations when what's going on is considerably smooth and tame. This result blows apart the tempting but ultimately naïve assumption that Calculus (or any mathematical system) can provide a comprehensive account of all natural phenomena – dealing a fatal blow to a strong mathematical worldview born of the European Enlightenment.

So what is the problem? The first discovery that things go awry occurred in 1807, when Joseph Fourier discovered a clever solution to a simple physics problem of heat transfer. His brainchild, what we now call “Fourier Series” (a ubiquitous mathematical idea used in science and engineering), accidentally revealed just how subtly sinister infinity can be. It took some of the world's best mathematicians the *next 80 years* to figure out just what went wrong, and how to put things back together again. Their discoveries led to such ideas as fractals, new systems for logic, and a brand new axiom – never before established – to define the real numbers by a kind of intellectual fiat. The tools developed from this era formed a subject we now call “Real Analysis,” one of the three pillars of modern pure mathematics. (The other two are Abstract Algebra and Topology.) This course retraces the development of this subject, culminating in the modern and remade definitions of the limit, derivative, integral and power series that allow their limitations to be dealt with explicitly.

Course topics include: Fourier Series and the Heat Equation; infinite series, convergence and divergence; arithmetizing the continuum, completeness, and the axiom of the real numbers; cardinality and countability; differentiability and summation; limits, continuity, and the Intermediate Value Theorem; uniform convergence and the answer to the original problem of the course.

A sample problem: Prove that the value of $1/1 + 1/4 + 1/9 + 1/16 + 1/25 + \dots = \pi^2/6$

Why take this course? This course is a peak mathematical experience. It is not only a fundamental course in pure mathematics and part of all undergraduate mathematics curricula (it transfers readily to a sophomore or junior course for math majors), it is a challenge for the strongest of mathematical students. While the ideas are simple at heart, the level of detail required in both symbol and argument require discipline, grit, the willingness to tolerate confusion, and the ability to abstract at a high level. The insights from this course are worth the hard work – they are profound. This course will leave you with a worthy badge of intellectual honor, as well as with the hard-won experience of a foundational course in the canon of advanced, pure undergraduate mathematics. You will never view infinity the same again.

Who should take this course? Students who take this course should have taken Calculus at least through integration, and preferably through multivariable Calculus. Those subjects should have felt, at least at the time you took them, like you understood them well and felt comfortable with their basic ideas and problems. This course is ideal for students who like math and are up for doing challenging mathematical work. On a scale of 1 to 10, with 1 = very easy and 10 = very hard, this course is a 10.

What else? Don't be intimidated by this course description. If you are interested in this course at all, come talk to me about it. It's amazingly fun. You will construct a fractal from sine waves and build a function that is continuous while *every point* forms a sharp corner – at the same time. What could be more amazing!