NEW HUMANITIES COURSES AY 2020-2021

**English**

**Hum/En 26. What Is Imagination?** 9 units (3-0-6); third term. Albert Einstein once said that imagination is everything, and even more important than knowledge. This course invites you to think about and use your imagination as we explore how the act of imagining has been viewed over time in the service of memory and creativity, in both the arts and the sciences. Readings will focus on the eighteenth and nineteenth centuries and will include Hume, Moritz, Kant, Novalis, Hoffmann, Coleridge, and Wordsworth. Instructor: Holland.

**Hum/En 27. Literature and the Problem of Belief.** 9 units (3-0-6); third term. "On a huge hill, / Cragged and steep, Truth stands, and he that will / Reach her, about must and about must go." In this verse, John Donne captures the difficult and circling pursuit of truth, the mixed experience of belief: it is at once a knowing and an unknowing. By tracing this pursuit through the writings of the Renaissance and the Enlightenment, we can explore how writers discovered belief and grappled with doubt, what inspiration they claimed and how they reckoned with failures of vision as they moved through a world increasingly filled with claims and contradictions of the spirit. In our own pursuit of the experience of belief, we shall read the prose and poetry of Margery Kempe, Montaigne, Herbert, Hutchinson, Milton, Defoe, Blake, Barbauld, and Coleridge. Instructor: Koch.

**Hum/En 34. Literature and Deception.** 9 units (3-0-6); second term. In this course, we will be considering lying and other types of deception from the point of view of literature and philosophy, with two main goals in mind: 1) to compare cultural practices of deception at various times in European history and 2) to think in general terms about the ability of a literary text to convey truth and falsehood. Can a fictional text be "true" in any meaningful sense, such as a political one? Or, as many people have thought over time, is it more accurate to think about literature as a beautiful lie? Readings will include the legend of Till Eulenspiegel as well as texts by Machiavelli, Shakespeare, Diderot, and those relating to the Ossian controversy. Instructor: Holland.

**Hum/En 40. Power, Politics, and Travel Literature: From Travelogue to TripAdvisor.** 9 units (3-0-6); second term. This course will investigate the peculiar yet ubiquitous figure of "the tourist" in a world of uneven mobilities fueled and exacerbated by economic disparity, climate change, technology, border conflict, and racism. Guided by postcolonial and critical race theory as well as environmental and feminist frameworks, we will explore and critique the "tourist gaze" as represented in literature and visual culture. Mapping the influential tropes of early colonial travelogues across time and space, we will examine how geopolitical power and structural inequality continue to shape tourism in the global digital era. Possible authors include Njabulo Ndebele, Saidiya Hartman, Jamaica Kincaid, Nicole Dennis-Benn, Dany Laferrière, Farzana Doctor, and James Baldwin. Instructor: Hori.

**En 111. Violence and Reconciliation on the Shakespearean Stage.** 9 units (3-0-6); second term. Sir Francis Bacon famously described revenge as a "wild justice," and there are vivid examples of such justice in the drama of Shakespeare and his contemporaries: revenge for political betrayal and tyranny, for sexual infidelities and desires, for religious misbehavior and dogmatism. But what
of the experience of reconciliation on the Shakespearean stage? What pathways to concord and peace did these plays offer? This course explores the relationship of violence to the fleeting experience of reconciliation in early modern drama. The plays of Shakespeare, Marlowe, Jonson, Middleton, and Dryden allow us to consider how drama as text and performance engaged and continues to engage playgoers as they watch the religious, social, and political upheaval of their worlds mounted to the stage. Instructor: Koch.

**En 145. Literary Constructions of Motherhood.** 9 units (3-0-6), first term. This course will examine motherhood as experience and institution—conceived of in vastly different ways—by a diversity of authors, genres, and literary modes to include the historical novel, the poem, the personal essay, the graphic novel, and the epistolary form. Our intersectional approach to a plurality of mothers and motherhoods will highlight the writings, experiences, and embodiments of people of color and immigrants as well as queer and disabled folks. Engaging with popular/visual media, we will study the figure of the mother (biological or otherwise) as bearer of potent cultural myths and enduring stereotypes that continue to haunt contemporary constructions of maternal care. We will also explore community formations that center mothers as agents of political change. Possible authors include Adrienne Rich, Audre Lourde, Toni Morrison, Buchi Emehita, Tanya Tagaq, Jamaica Kincaid, Maggie Nelson, Rivka Galchen, and Alison Bechdel. Instructor: Hori.

**En 151. Keeping Time.** 9 units (3-0-6); third term. The way in which humans perceive and record time has a discernable history, and literary texts offer us one of the best ways to study it, particularly in times of war and natural catastrophe. With a focus on 16th- through 18th-century European literature, we will examine various techniques of literary time-keeping as they relate to topics such as, fame and mortality, as well as the experience of time's slowness and acceleration. Readings will include selections from Baroque emblem books as well as texts by Montaigne, Milton, Pepys, Defoe, and Rousseau. Instructor: Holland.

**En/VC 170. Plantation Imaginaries.** 9 units (3-0-6); second term. This course will focus on the institution of the plantation across U.S. and Caribbean contexts and trace the circulation of its seductive imageries and imaginaries in the perpetuation of historical erasure and racial inequality. Reading plantations as sites of both unspeakable violence and vital storytelling, we will also explore those alternative imaginaries or recuperations of plantation landscapes through various aesthetic, material, and political interventions. Supported by close analysis of image and text, students will engage in the interdisciplinary study of the plantation as a powerful structural engine of visual culture, design, narrative, and modern life. Possible topics include the works of Kara Walker, Jean Rhys, Harriet Jacobs, Simone Schwarz-Bart, Marlon James, and Gone with the Wind (1939). Instructor: Hori.

**History**

**Hum/H 12. Social Theory.** 9 units (3-0-6); first term. This course introduces students to both canonical and non-canonical theories of society. From the formative debates over the role of the state in human affairs in early modern Europe to radical interpretations of social good in the twentieth century, students will be exposed to competing theories of society and their implications in the political, the economic, the emotional, and the scientific realms. By the end of the quarter,
students will be able to link contemporary notions of individuality, agency, rationality, morality, and ethics to divergent discourses in the history of social theory. Instructor: Dykstra.

**H/HPS 155ab. Mortality Crises and Social Change: Epidemic Disease from 1300 to the Present.** 9 units (3-0-6); second, third terms. What do we know about epidemics in the past? What did contemporaries understand about these events? How did societies respond to periodic bouts of epidemic disease? This course examines mortality crises and epidemics from the Black Death in the 14th century to the current coronavirus pandemic, with attention given to the impact of epidemics on societies, the ways in which such outbreaks have been understood over time, and the kinds of responses they have elicited. We will draw on studies for a range of societies in order to identify patterns across space and time, and to highlight both continuity and change in the ways societies have dealt with contagious diseases. Part (a) will address these questions with a focus on society and economy. Part (b) will address these questions with a focus on the history of science and medicine. Instructors: Dennison, Kormos-Buchwald.

**History & Philosophy of Science**

**Hum/H/HPS 16. Visualizing the Heavens: Images and Instruments of Early Modern Astronomy.** 9 units (3-0-6); first term. In Europe during the period from 1450-1650, there were several radical "revisions" of the universe. Nicolaus Copernicus proposed a sun-centered, rather than earth-centered, cosmos. Galileo Galilei turned his telescope towards the heavens and observed the Moon, Sun, and moons of Jupiter, and the voyages of discovery led to an expansion of the known world. At the same time, the innovation of the printing press played a crucial role in disseminating information and in allowing for astronomical printed images, including celestial atlases and maps, to reach a broad audience. Paintings of the heavens during this period are also a rich source of shifting astronomical ideas. In this course, we'll trace the role that images and instruments of astronomy played in both producing and reflecting these dramatic "revisions" of the universe. We'll study astronomical models, eclipse diagrams, almanacs, and printed instruments, alongside astrolabes, telescopes, and celestial globes, to uncover how images and instruments literally produced a new "vision" of a sun-centered universe for the early modern world. Instructor: Gaida.

**Hum/H/HPS 17. Making Life Legible: Materials and Methods in the History of Modern Biology.** 9 units (3-0-6); first term. This course is an introductory exploration of the stuff of modern biology - the practices and objects that biologists have used to produce knowledge of living nature in the nineteenth and twentieth centuries. The course will look at how familiar concepts (e.g. the cell, evolution, the gene) were shaped by scientific workers’ adoption of different methods and materials. This approach will allow us to situate biological inquiries within wider political and cultural contexts, while also drawing our attention to the way instruments mediated perceptions in the recording of observations and the execution of experiments. We will trace continuities and changes in the kinds of questions that naturalists and biologists posed, survey spaces in which they pursued their work, and become acquainted with a variety of humans, nonhuman organisms, chemicals, and machines assembled in these spaces. These exercises will familiarize us with diverse forms of labor in and beyond laboratories that have contributed to how humans understood the living world. Instructor: Kollmer.
HPS/H 173. Carving Nature at its Joints: History of Natural Kinds and Biological Individuality. 9 units (3-0-6); first term. In Plato's Phaedrus, Socrates famously described the virtues of two complementary ways of looking at the world. The first entailed "seeing together things that are scattered about everywhere and collecting them into one kind," while the second was the skill "to cut up each kind according to its species along its natural joints, and to try not to splinter any part, as a bad butcher might do." In a similar sentiment, Darwin wrote in 1857, "It is good to have hair-splitters and lumpers." How have naturalists and biologists perceived similarities and differences in the living world? How have they divided nature into kinds and individuals? How have they distinguished between parts and wholes? This course explores these and related questions through the history of biology, from Renaissance-era natural histories through present-day studies of molecular evolution. Other topics covered will include histories of comparative anatomy, immunology, mutations, commensalism, cloning, and biodiversity conservation. Instructor: Kollmer.

HPS/H 174. Economies of Nature: Global History of Biotechnology. 9 units (3-0-6); third term. Humans excel at using other organisms, including other humans, as means to ends. From the beginnings of agriculture, our species has cultivated crops, livestock, and microbial fermenters as living technologies of production. In modern industrial economies, human uses of life have undergone radical changes, as have the values humans assigned different forms of life. Agriculture underwent rationalization and intensification, increasing yields many times over. Scaled-up fermentation techniques served to preserve food, manufacture drugs, and process wastes. In vitro fertilization and somatic cell nuclear transfer permitted dramatic interventions in sexual reproduction. This course will explore these and other histories of biotechnology across different temporal, geographic, and cultural contexts, paying special attention to the ambivalent relationships that arose between user and used in such instrumentalizations of life. Instructor: Kollmer.

HPS/H 176. The Occult Origins of Modern Science: Alchemy, Astrology, and Magic. 9 units (3-0-6); first term. Modern science is often described as a rational, empirical, and objective search for truth about nature. But how, when, and why did science come to acquire these qualities? Many scholars look to the exciting developments and discoveries of the sixteenth and seventeenth centuries in Europe-the so-called "Scientific Revolution"-as the defining period for the emergence of modern science. If "modern" science is defined in these terms, then "premodern" science must have looked more like pseudo-science, superstition, or myth. However, that is far from the truth. In this course, we'll work to uncover the role that the occult sciences, including alchemy, astrology, and magic, played in the formation of modern science. Our studies of the occult sciences will force us to think more deeply about what distinguishes modern science from the occult sciences, and to question why their role in the development of modern science has also been obscured. Instructor: Gaida.

Philosophy

Hum/Pl 39. Ancient Greek Philosophy.. 9 units (3-0-6); second term. Ancient Greek philosophy is not only the root of philosophy but of science in general. One of the most influential texts of this time is Plato's Republic, in which Plato gives his views on almost all aspects of philosophical inquiry from metaphysics to political philosophy. The Republic is still one of the best introductions
to ancient philosophy, and it is surprisingly accessible, also because it is written as a dialogue. We will be reading this text in detail and apply Plato's thought to current problems in philosophy. Instructor: Hubert.

Hum/Pl 46. Thinking about Climate Change. 9 units (3-0-6); second term. This course will critically examine the non-technological dimensions of climate change and how broadening our discussions to incorporate these dimensions may help us effectively communicate about climate change. First, we will examine climate change as an ethical problem concerned with global distributive justice, intergenerational justice, and the anthropocentric values of sustainability vs. challenges from deep ecology. We will then examine how people think about climate change and how the ways we frame climate change affects people's reactions to it, including both motivating and demotivating them to act. We will then examine how these dimensions may be incorporated into a broader understanding of climate change and how this may be used to develop strategies for effectively communicating about climate change. Instructor: Quartz (Not offered 2020-21)

HPS/Pl 139. Human Nature, Welfare, Sustainability. 9 units (3-0-6); first term. Policy makers since at least the time of Jeremy Bentham have argued that welfare maximization ought to be the goal of social policy. When this includes perfectionist notions of realizing one's capacities, economic prosperity, prosocial norms, and democratization have all coincided as key drivers of human development. Although the UN 2030 Agenda for Sustainable Development envisions worldwide inclusive and sustainable economic growth, there is substantial debate regarding the extent to which sustainability and economic growth are compatible. This course will critically examine the links between human welfare, economic growth, and material culture to better understand why economic growth and welfare have been taken to be intertwined - and the extent to which they could be decoupled. Our starting point will be the Brundtland report, its conception of welfare based on human needs, and subsequent articulations of needs-based theories of human welfare, including evolutionary and biological accounts that include social comparison processes such as esteem, status, and recognition. This will provide us with a theoretical framework for investigating the role of material culture in satisfying these needs and whether they may be satisfied by less resource-intensive routes. Instructor: Quartz. (Not offered 2020-21)

Visual Culture

Hum/VC 48. Ways of Seeing. 9 units (3-0-6); second term. "The knowledge of photography is just as important as that of the alphabet," wrote artist László Moholy-Nagy in 1928. "The illiterate of the future," he warned, "will be the person ignorant of the use of the camera as well as the pen." Almost a century later, this pronouncement rings as true as ever in a world so profoundly shaped not just by photography but also films, advertisements, and video games, cartoons and comics, molecular graphics and visual models. In this course we will explore how visual culture shapes our lives and daily experiences, and we will learn to find wonder in its rich details. In doing so, we will develop the visual literacy that Moholy-Nagy envisioned: essential skills in reading, analyzing, discussing, and writing about visual materials and their circulation through the physical and virtual networks that structure our world. Instructor: Jacobson.

VC 53. Making Data Visual. 6 units (3-0-3); third term. This course will explore and experiment with strategies and approaches to rendering scientific and mathematical data into visually powerful
forms and experiences. Students will work towards individual pieces and a collaborative visual project that includes, critiques or presents scientific and/or quantitative data. All/any forms are encouraged: virtual/technological media, painting, performance, sculpture, poetry, public interventions, film/video, projections etc. Through the close readings and discussion of related texts, the critical examination of art that intersects with science, and independent/collaborative research experiments with various formal processes, students will gain an understanding of how the visual can: expand or constrict knowledge; pose more questions than answers; provoke extreme emotional reactions and intellectual responses; and actively involve the viewer. Taught concurrently with CS 163 and can only be taken once, as VC 53 or CS 163. Instructor: Slavick.

**VC 54. Relative to You: Representing Scale in Art and Science.** 6 units (3-0-3); third term. The relationship to scale is an essential component that both artists and scientists contend with. How do we conceptualize the very, very large and the very, very small and even more challenging, how do we represent extreme scales of size or time in an understandable and meaningful way? The focus of this course explores the various ways art and science grapple with scale and find ways to communicate that scale. This course will take an interdisciplinary approach in thinking and making to include history, theory, and the creation of artwork. Each student will use their major as the bounding point to explore what scale means in their discipline to conceptualize three key themes in the course: mapping, size, and time. In lectures, readings, and writing, students will explore the trajectory and visual histories of scale between the interconnections of art and science. The course will include regular drawing assignments as a tool to visualize thinking. Students will have the autonomy to create their projects in the medium of their choice (sculpture, painting, video, or creative use of technology to make an artwork). Course will contain drawing and making demos, no previous art experience required. This course will include a field trip to Mt. Wilson Observatory for a night of observing on the 60" telescope and other campus field trips to Caltech labs, including the LIGO 40-meter prototype. Instructor: Halloran. (Not offered 2020-21)

**VC 55. Visual Narratives Colors of the Americas.** 6 units (3-0-3); second term. This course focuses on various ways in which artists have processed materials from the natural world to create colorants of the Americas. Each week students will be introduced to a different color by means of practical handling of mineral pigments and organic colorants that we will process, map, and learn about its history. Specific topics will include, but not limited to, the role of the artist in articulating cultural identity, the place of politics in art, and the intersections between art, poetry and science. Consequently, students confront the course themes through the various lenses motivated by a belief in the power of the arts, civic engagements and humanities to articulate human experience in relationship to the land we occupy. Instructor: Rodriguez.

**VC 120. Landscape, Representation and Society.** 6 units (2-2-2); first term. This course examines historical and contemporary representations of the natural world in art and science through a social lens. We will draw upon theory and practices from art, science, geography and landscape studies to critically analyze how artists, explorers, speculators, scientists, military strategists, and local inhabitants use environmental imagery for diverse purposes with sometimes conflicting interests. The course includes projects, lectures, readings, discussions and a 2-day field trip. Students will learn to think critically while developing creative, culturally complex approaches to observing, recording and representing the natural world. Students hoping to combine
their course work with a research paper may sign up for a separate independent study and conduct research concurrently, with instructor approval. Instructors: Mushkin.

**VC/H/HPS 163. Science on Screen.** 9 units (3-0-6); first term. Many of our ideas about who scientists are and what they do have been formed through media consumption - especially from the movies. This course examines how our ideas about science have been constructed at the movies and on television, and how science and cinema, their histories, philosophies, and visual cultures, are interconnected. Instructor: Shell.

**VC/H/HPS 164. Fashion and Waste.** 9 units (3-0-6); second term. Before the Industrial Revolution, new clothes were few and far between. By the early 1800s, new industrial recycling processes enabled wool rags to be reprocessed into new suits, and for the first time the working class gained access to 'Sunday finery.' Dressing better meant a chance at increased social mobility. Today we take for granted fast fashion and disposable clothing. This course examines the complex interrelationship among history, technology, and the ways in which we construct our own identities through clothing; visual, textile and other material culture sources will be front and center. Students will dig into their own closets, memories, and dreams. Instructor: Shell. (Not offered 2020-21)

**VC 175. The Art of Science.** 9 units (3-0-6); third term. This course examines the frequent and significant encounters between what chemist/novelist C.P. Snow famously dubbed the "two cultures"-the sciences and the humanities-with an emphasis on forms and practices of visual culture that blur the boundaries between science, technology, and art. What role, we will ask, have visual culture and visuality played in the construction of scientific knowledge? Taking a broad historical and geographical approach, we will explore topics including representations of science and technology in the arts and popular culture; the use of photography, illustration, and visualization in the sciences; histories of visuality and visual devices; and the everyday visual practices of scientific inquiry. Instructor: Jacobson.