



# HONORS

*course descriptions*

Spring 2026

\*Courses and descriptions are subject to change.

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## UK CORE: HUMANITIES

### **HON 151-001: Healthcare Ethics**

Dr. Daniel Kirchner | MWF 11:00-11:50

In this course, we will delve into the professional and personal ethics involved in health care. Starting from the viewpoint of prospective health professionals, we will learn the ethics and practice of care. We will then explore healthcare-related ethical challenges in the areas of research (animals and humans), end of life (euthanasia, death, and dying), beginning of life (reproduction, cloning, genetic testing), and justice (treatment and access to healthcare). Our discussions will be framed through engagement with historical and contemporary cases and aimed at developing ethical practices for future health care professionals.

### **HON 151-002: History of Russian Art**

Dr. Elena Iushkova | T-Th 11:00-12:15

As one of the largest countries in the world, Russia plays a significant role on the global stage. In this course, the attendees will learn about Russia through its art: from ancient Byzantine icons to the revolutionary avant-garde paintings of the early 20th century, from monumental cathedrals of the 9th-11th centuries to contemporary skyscrapers of Moscow, from realistic art of the 19th century to ironic installations of the late socialist era, from socialist realism to Pussy Riot provocations... The course will cover the rich palette of Russian art history and offer an opportunity to engage with one of the world's most vibrant artistic traditions.

Students will explore the following questions:

1. How is Russian art unique?
2. How has European culture influenced Russian culture? What other competing influences can we find?
3. How has Russian art enriched world culture? Where do we see its influences today?

The creative assignments will include preparing a virtual exhibition of Russian painting, making an art object in the style of the Russian Avant-garde, a virtual tour through the Tretyakov Gallery in Moscow and/Russian Museum in St. Petersburg, and more.

### **HON 310-002: Leading with Integrity: Leveraging Values for Individual and Collective Success**

Dr. Daniel Kirchner | MWF 1:00-1:50

Motivating questions: What are values? What values do I have? Do I have values I haven't noticed yet? What role do they play in shaping the world we experience? How are they transmitted across space and time? What forms do they take? How are they organized into effective systems? What kind of artifacts do they leave? Can they be discerned by recognizing patterns and behavior? What effects do they have on you? How do they shape the things we study, the systems we navigate, and the things we do?

This course will investigate the values underpinning human activities across disciplines, genres, cultures, histories, and systems. The course aims to engage each student in developing a method of inquiry toward understanding the values in the negative space (the area around and between a subject) that supports human activities. The process consists broadly of reverse engineering systems in ways that allow us to reveal and evaluate the values that produce them. We will start from where we are, with an initial discussion of values as pluralistic and pervasive, by practicing ways of identifying the frameworks of meaning that scaffold a variety of human works, including children's literature, art and music, message sticks, concepts, traditional ecological knowledge, organizations, policies, institutional practices, and others. We will consider how various social factors drive our attention and how to train it to perceive details and commonly overlooked contexts. The approach will be "hands-on" with students working collaboratively to interpret, model, and evaluate the value frameworks they discover from their own perspectives and experiences. As we extend our inquiry, students will be expected to apply



what they have learned to a larger-scale project that engages with practices/history/systems in their own particular discipline.

Students who complete this course will leave with the capacity to chase questions across time and space in ways that will build them an unequalled breadth and depth of knowledge in whatever way they desire, achieving a rare form of freedom/responsibility and creating the potential for an extraordinary appreciation of life as learning.

### **HON 310-003: Marxism and the Communist Experiment in Eastern Europe**

Dr. Ryan Voogt | T-TH 2:00-3:15

Is capitalism messed up beyond repair? Do we need a new system entirely--one without money, endless working for a paycheck, and destructive competition?

In this course, students explore the ideology of Marxism in theory and how it was implemented in the Soviet Union and Eastern Europe. We will come to understand the appeal of communism, what the intent of the ideology was, and whether in practice it lived up to its promises. Related questions that we will consider include: Are Marx's critiques of capitalism valid? What's the difference between socialism and communism, and when we use those words, is that what Marx and others meant by them? As the regimes started to show signs of failure, did communists stop believing in communism? Do people behave differently in a different system, or do we act the same regardless of our society or economy? By the end, students become experts in explaining socialism, communism, and capitalism to people around them. They are also educated on an extremely important aspect of history and an often-ignored part of Europe.

### **HON 310-004: Shadowing and the Culture of Medicine**

Dr. Claire Clark | TR 11:00-12:15

What is medical culture, and how do we become accustomed to it? Shadowing is both an orientation to the "culture of medicine" and a guide for aspiring physicians who hope to make that culture more equitable and just. We prepare to shadow with an interdisciplinary introduction to humanistic critiques of Western medical culture, including insights from the history of medicine, narrative medicine, and the visual arts. Next, we observe clinical settings through a series of creative and directed exercises that help us attend to social determinants of health. We reflect on our observations by writing personal statements that place our clinical experiences in cultural and structural contexts. Finally, we respond by identifying methods for taking action and affecting structural change in healthcare.

### **HON 310-005: Challenging the Boundaries: Performance Art in the 20th Century**

Dr. Elena Iushkova | T-Th 11:00-12:15

Street and protest performances, body art, and experiments in galleries and public places - this course is about the history of performance art, a relatively new academic discipline. It examines performance as a radical, interdisciplinary art form that challenges traditional boundaries between artist and audience, body and medium, and art and life. Students will explore key movements, artists, and works that shaped the genre, ranging from Dada and Futurism of the early 20th century to Happenings, Fluxus of the 1950s-60s, feminist and body art, and contemporary global performance practices. Through lectures, readings, film/video documentation, and class discussions, students will critically analyze performance art in its historical, political, and cultural contexts. Artists studied will include Marina Abramović, Yoko Ono, and Jan Fabre, among many others.

By the end of the course, students will be able to:

- Identify and contextualize major figures and movements in performance art history.
- Analyze performance works using appropriate critical and theoretical frameworks.
- Understand performance as both a visual and embodied art form with social and political impact.
- Engage in informed discussion and write critically about ephemeral and experimental practices.

## UK CORE: STEM

### **HON 152-002: The Anthropocene: Human Impact on the Planet and our Future**

Dr. Jason Unrine | TR 9:30-10:45

Over the past four centuries, human activities have had such a profound impact on the earth's systems that some scientists have proposed that we have entered a new geologic epoch: The Anthropocene. Observed changes include alteration of the basic composition of the atmosphere and oceans, global climate change, global deposition of contaminants such as heavy metals, plastics, radionuclides, and organic chemicals, massive soil erosion, global deforestation, and mass extinctions. The occurring changes are so profound and rapid that they mimic past catastrophic changes that have caused mass extinction events in Earth's geologic history. This course will explore the scientific methods and discoveries leading to our current understanding of global change. The course will draw on concepts and evidence from earth science, environmental chemistry, toxicology, epidemiology, ecology, paleontology, agricultural sciences, environmental engineering, and environmental policy.

We will pose questions such as: what is the nature and rate of the changes underway, and how does this compare to pre-human epochs? Does humanity have the capacity to slow and eventually reverse these changes? Second, if these changes cannot be reversed, what are the implications for humans and the biosphere as a whole? The course will not be all doom and gloom. We will ask what solutions we can propose to mitigate or reverse global change and highlight success stories. Students will adopt an interdisciplinary perspective.

### **HON 152-003: Why We Get Sick**

Drs. Sanda and Florin Despa | TR 11:00-12:15

Open to students of all majors, this course explores the genetic, lifestyle, and environmental factors that shape human health and contribute to disease. Through a mix of lectures, group discussions, debates, and hands-on activities, students will develop scientific literacy, gain experience interpreting real-world health data, and think critically about questions such as:

- Why do some people get sick while others stay healthy?
- How does damage at the genetic or cellular level lead to disease, especially with aging?
- Are we what we eat, and how much does diet really affect disease risk?
- Does where we live influence our health?
- Why do chronic diseases like diabetes, heart failure, and Alzheimer's so often appear together?
- How are scientific and technical innovations transforming healthcare, improving disease treatment, and extending human longevity?
- How should emerging medical technologies (for example, gene therapy) be weighed against ethical considerations?

By the end of the course, students will have a deeper understanding of the science behind health and disease and the tools needed to engage thoughtfully with health issues facing individuals and society.

## UK CORE: SOCIAL SCIENCES

### **HON 251-002: Encountering Appalachia**

Dr. Zada Komara | MWF 10:00-10:50

Appalachia is in many ways an imagined place. The region is ‘made’ through films, television shows, photographs, novels, and material objects. This economically, geographically, and socially diverse region, stretching from New York to Mississippi, is a land of imagination, a playground for hopes, desires, romanticization, condemnation, and exploitation. The relationship between representation and place is dialectical: we make representations of Appalachia as representations of Appalachia make the region. Representations can thus manifest a region of diversity, agency, empowerment, nuance, and even contradiction, or they can manifest a region of homogeneity, oppression, fatalism, stagnation, resignation, and despair. The majority of popular representations construct Appalachia through the latter. We encounter Appalachia through poverty photos, ‘hillbilly’ reality television shows, horror movies, graphic novels, theme parks, and folk life exhibitions, which have largely represented Appalachia as a cultural “other,” a simultaneously backwards yet potentially transgressive anomaly existing in opposition to the American mainstream. “Othering” the region’s people and places allows us to construct a land of inferiority, exceptionalism, and spectacle. But Appalachia must be encountered and thus constructed differently through this very same media. A crowdsourced documentary photo of a Black poet performing in rural West Virginia asks us to explore our assumptions that the region is White and uneducated. Indigenous foods on the menu of a four-star restaurant prod us to unpack the region’s ancient roots and contemporary changes. A graphic novel about a disabled teenager and his non-binary friend manifests the real, complex, vibrant humanity we often deny the region. This course asks us to analyze how we know Appalachia by countering representations ranging from the stereotypical to the radical. We will explore motivations and envision transformations through an interdisciplinary social science lens. We will perform visual, textual, and material analyses on a variety of media, including TV shows, movies, documentaries, photojournalism, art, graphic novels, video games, bodies, buildings, and landscapes. Projects include reflections, oral history, and a stage play based on archival material.

### **HON 251-003: Psychology, Politics, and Society**

Dr. Sherelle Roberts | TR 12:30-1:45

Psychology, Politics, and Society explores the intersection of psychology and politics, examining how cognitive processes and biases influence political beliefs and behaviors. Students will delve into themes such as information processing, cognitive bias, dehumanization, the impact of media on political attitudes, psychological aspects of crime and punishment, and the cognitive underpinnings of fiscal decision-making. Students will gain insights into the psychological mechanisms driving political dynamics and decision-making through lectures, discussions, and class activities.

### **HON 251-004: Introduction to Public Policy**

Dr. Cory Curl | TR 9:30-10:45

In Introduction to Public Policy, we explore the science and strategy of problem-solving in the public interest. Students learn to use data and evidence to understand the causes and consequences of problems they care about – in housing, environment, health, education, energy, technology, or whatever interests them. From there, students use a policy analysis framework to evaluate potential solutions to those problems. Students learn how to communicate with clarity and credibility to decision-makers and other influential leaders in government, nonprofit organizations, and well beyond.

## **HON 251-005: Sociocultural Dimensions of Health and Medicine: A Primer for Future Practitioners**

Dr. Terry Stratton | TR 9:30-10:45

Along with physiological and biological factors, cultural values, attitudes, and belief systems are essential in shaping our definitions of “normal” human function. This seminar will acquaint students with the major social, cultural, and behavioral phenomena that guide and influence health-related behaviors and outcomes – including our perceptions of what constitutes health and illness.

For those pursuing health professions careers, this course introduces learners to social “structural” forces which impact our perceptions of health and illness and the larger social contexts in which related behaviors occur - concepts now included in many professional school admissions tests and board certification exams.

Broadly speaking, course content will address the following questions:

- How does “health” become culturally defined? What is “normal”?
- From what sources do individuals get health information?
- Why are certain behaviors classified as illness or deviance?
- What factors influence individual health behaviors?
- Why do health disparities exist among social groups?
- What roles do the health professions play in shaping behaviors?

## **HON 251-006: Unlocking the Secrets of Language**

Dr. Jennifer Cramer | MWF 11:00-11:50

This course is designed to give students a broad introduction to the field of linguistics from the perspective of language users. As native users of at least one spoken or signed language, students are already in some ways experts in how language works. This course will explore the beliefs about and perceptions of language that they already possess and build upon this knowledge by comparing popular notions about language with those developed in linguistic science.



## UK CORE: ARTS AND CREATIVITY

### **DES 100-006: Design in Your World**

Dr. Elizabeth Swanson | MWF 12:00-12:50

Understanding how design unfolds from and informs culture, students garner appreciation for and creatively experiment with the embedded practice of design as a basic human response for inhabitation, work, play, and worship.

### **ENG 107-012: Writing Craft: Introduction to Creative Writing**

Dr. Shauna Melissa Morgan | MWF 9:00-9:50

An introduction to the genres and craft of creative writing, including fiction, nonfiction, and poetry. Students will study and practice writing in various modes through composition, peer critique, and research. Lecture or lecture with a discussion section. Offers credit for the UK Core requirement in Intellectual Inquiry in Arts & Creativity. Provides ENG minor credit.

### **ENG 180-001: Great Movies**

Dr. Pearl James | TR 9:30-10:45

This section of ENG 180 will introduce students to films that emerge from or portray innovative moments in film history, when filmmakers have exploited old technologies in new ways or adapted brand new technologies in cinematic art. We will consider how filmmakers have found inspiration from changes and challenges at different historical and technological moments. How do filmmakers use technologies to change the basic elements of filmmaking (cinematography, sound, *mise-en-scène*, CGI, editing) and tell stories in new ways? How do technological (or other) constraints inspire innovation and creativity? We will consider several key technological pivot points and how they are portrayed at the moment and in retrospect: the transition to sound (*Singin' in the Rain*, *The Artist*), the use of color (*Wizard of Oz* and others), the use of mobile cameras (early examples plus *The Gleaners and I*, *The Blair Witch Project*), and the invention of CGI (*Jurassic Park*). We will consider the notion of film authorship as students work to become makers in elements of cinematic art. Students will produce short films and then work in groups to create a final film project, and will critique each others' work and integrate elements of others' critiques in their final projects.

### **HON 252-001: Short Form Literature and the Art of Meaning**

Dr. Dustin Faulstick | MWF 12:00-12:50

The twentieth century saw major historical, economic, scientific, religious, and political events shape the creation of literature and the arts. Turn-of-the-century scientific discoveries had many people wrestling with meaninglessness, which World War I accelerated. Some artists tried to replace, repair, or revive traditional sources of meaning, while others abandoned the idea of inherent meaning altogether. Our course follows literary responses to the twentieth century by authors born in the United States. It examines the relationships between US authors and other art forms—especially painting and jazz. A creative component of the course invites students to adapt the artistic styles and strategies our course authors advocate to produce their own artworks.

The following questions will help to guide our conversations:

- What historical, scientific, and philosophical events informed the development of twentieth-century artistic movements, and how did twentieth-century culture evolve from previous time periods?
- How did place and proximity to other artists—for example, many US writers found inspiration in Paris, France—influence the development of literary styles?
- How did expectations for where we find meaning in the world change as a result of new scientific discoveries, and how have literary authors responded to those changes?
- What can visiting an art museum, listening to a piece of music, or reading about brain cognition contribute to our

ability to closely observe, assess, and reflect on art?

- How does creating our own poems—imitating the styles of famous authors—aid in understanding literary complexity and the processes of creation?

### **HON 252-002 / 252-003: Moving Images: Intersections of Art, Experimental Film, and Home Movies**

Dr. Jena Seiler | MWF 12:00-12:50, 1:00-1:50

This course creatively and conceptually explores moving image practices and the relationship between art, experimental film, and home movies. Specifically, the course will focus on home movies' creative and experimental potential. Throughout the course, students will be asked to respond to moving image works, engage with concepts, explore their own relationship to the medium and topic, and create their own moving image projects. These projects will require students to rework existing footage and create original footage. To support students in their creative endeavors, the class introduces students to various works by artists and filmmakers and techniques for filming and editing their own works.

### **HON 252-005: Graphic Narratives and the Art of Storytelling**

Dr. Julie Boutwell-Peterson | TR 12:30-1:45

In the past few decades, graphic narratives have exploded on the literary scene—proving how the medium is not only useful for kids' comic books but also for exploring a plethora of serious issues, especially historical trauma and personal narratives.

This class will explore a variety of comic forms and genres—including memoir, biography, and symbolic fantasy. We will learn the elements that make up graphic narratives—panels, frames, gutters, page layouts, word balloons, and sound effects – and consider how each element contributes to the meaning and effect of the story. We will also consider how best to “read” this genre – even, or perhaps especially, pages that have no words.

Along the way, we will discover how readers can find healing and gain powerful new perspectives to both historical and personal events in this remarkably compelling literary genre.

In addition to text analysis, class time will be devoted to practicing the art of the comic, and at the end of the semester, you will create your own complete graphic narrative. No drawing skills are needed—only a willingness to try something new and expand your creative horizon!

## UK CORE: US CITIZENSHIP

### **HON 360-001: Media and Civil Society**

Dr. Sherelle Angelique Roberts | TR 2:00-3:15

Media and Civil Society examines the impact of newspapers, radio, television, movies, and social media on the American information environment, from the founding of Fox News and the Boston Tea Party to TikTok. This course will examine the importance of facts, narrative storytelling, and a cohesive information environment to the success of America's democracy. We will examine historical and contemporary events through the lens of media across the political and social spectrum. You will learn about themes such as media literacy, social contract theory, media bias, the role of media in social movements, information processing in the brain, misinformation/disinformation, and political satire.

## UK CORE: STATISTICAL INFERENCE REASONING

### STA 381-002 + HON 395-003: Engineering Statistics-a Conceptual Approach

Dr. Kara Cook | MWF 11:00-11:50, F 12:00-12:50

Data collection, description, and factor "association" versus causal relationship; "Confidence" - statistical versus practical; and Hypothesis testing - All of these covered in a conceptual approach while relying heavily on the mathematical language of probability (e.g., population and sample distributions; sampling; regression on one variable) and use of simulated and real data. Honors students shall enroll in both the STA honors section and the 395 cohort honors section to receive honors credit, which will total 4 honors credits.

## UK CORE: GLOBAL DYNAMICS

### **HON 350-001: Geopolitics and International Trade with Dune**

Dr. Nazmus Sakib | TR 11:00-12:15

What do a desert planet 20,000 years in the future and our own turbulent world have in common? More than you think. This course uses Frank Herbert's *Dune*—and its recent film adaptation—as a lens to explore some of the most urgent questions in international politics: Why do states go to war? What makes peace endure? How do trade and global finance link distant societies together, for better or worse?

Students will gain a foundation in international relations theories while applying them to both real-world history and Herbert's sprawling intergalactic Padishah empire. From bargaining and peace settlements to trade networks, resource struggles, and domestic politics, we'll trace how conflict and cooperation shape societies across borders and time. You don't need to have read *Dune* cover-to-cover to join, though you'll probably never watch it the same way again. By the end, you'll not only recognize the forces driving diplomacy, conflict, and globalization, but also sharpen your ability to critique policy arguments and understand how local politics, economies, and cultures are bound up with broader global trends.

### **PHI 343-001: Asian Philosophy**

Dr. Eric Sanday | TR 11:00-12:15

We will be reading major texts from the Hindu, Buddhist (Pali texts), Confucian, Daoist, and Zen traditions and using them as a basis for dialogical engagement with one another in a seminar-style environment. Discussions of cultural difference and historical change will key from the overarching theme of “letting be” (*wu-wei*, lit. “in the absence of/without doing or exertion”) as it crops up in these texts. Special attention will also be given to the themes of friendship and duty.

### **PLS 103-003: Honors Plants, Soils, and People: A Global Perspective**

Dr. Katsutoshi Mizuta | MWF 1:00-1:50

Food is one of the few things that are essential to life. What people eat is about what they need to be healthy, what they want to eat (personal preference and culture), and what they have available or can afford to eat. Agriculture plays a vital role in human food security. Many experts feel the world is facing a food supply crisis. Knowledge and application of the principles of plant and soil sciences will dramatically affect human food security, now and into the future, both locally and globally. However, future human population growth, urbanization, consumer preferences, human decisions regarding civic duties, and climate change will also impact these issues. Students successfully completing this course will leave with an understanding of the need to sustainably expand the world's food supply, the basic principles of plant and soil science, and their application to this problem, and their own potential role in determining our ability to meet this challenge.



## HON 301 ADVANCED SEMINAR

### HON 301-001: The Ecology of Middle-earth: Environ. themes in J.R.R. Tolkien's *The Lord of the Rings*

Dr. Kenton Sena | MW 3:00 - 4:15 PM

In this course, students will critically engage with themes of ecology and environment as presented in texts from the legendarium of J.R.R. Tolkien, creator of Middle-earth. (Familiarity with *The Lord of the Rings* is not a prerequisite—students of any degree of familiarity with Tolkien's work are welcome to join.) We will read *The Lord of the Rings* throughout the semester, alongside selected works of Tolkien criticism. We will also consider how Tolkien's perspective can inform our own engagement with the environment, especially through environmentally relevant service. The major products of the course will be a critical manuscript evaluating Tolkien's presentation of environmental themes, as well as a creative reflection project. Students will be strongly encouraged to submit their critical work to an appropriate peer-reviewed journal (e.g., *Mythlore*, *Journal of Tolkien Studies*, etc.)

#### Guiding Questions:

- How does J.R.R. Tolkien portray the natural world in his texts?
- How does Tolkien's portrayal of environment intersect with other themes (e.g., "good vs. evil," race, gender, duty, privilege, etc.)?
- What does Tolkien's work suggest about what it means to be fully human with respect to the environment (e.g., "stewardship")?
- How does Tolkien's perspective compare, contrast, etc. with modern environmental perspectives? With historical environmental perspectives?
- How does Tolkien's perspective inform your own experience of the environment?

### HON 301-002: Math and Music

Dr. Michael Baker, Dr. Peter Hislop | TR 2:00-3:15

Do you like The Weeknd? How about Post Malone? Have you ever considered some of the deep structures of their music and how they can be modeled with various mathematical principles? How about the relationship between mathematics, physics, and the design of concert halls, or musical instruments? Both music and mathematics, while inherently abstract subjects in themselves, serve as foundational languages that transcend their individual disciplines, influencing fields such as physics, audio engineering, psychology, and the arts. Students in this HON 301 course will explore the transdisciplinary connections between mathematics, music, and many other fields such as astronomy, physics, acoustics, and neuroscience. Students will interact with many guest practitioners whose professional work dwells in the shared space between music and mathematics, such as instrument designers, acoustic designers, recording engineers, and even medical data analysts, providing a richly interactive learning experience for students to explore these fields. Working knowledge of basic high-school math and basic music reading (naming notes and rhythms on the music staff) will be helpful for the course, but instructors will guide you through refreshing your knowledge on the topics to be explored. Most important is an unquenchable curiosity for the subject matter and a willingness to critically evaluate the connections between math, science, and music studied in class.

Some guiding questions for this course will be:

- What is transdisciplinarity? How does it relate to other concepts such as interdisciplinarity, cross-disciplinarity, or multidisciplinarity?
- What is the nature of transdisciplinary collaboration?
- What advantages does adopting a transdisciplinary perspective provide students, teachers, researchers, and professionals? What are the possible limitations of doing so?
- How does a transdisciplinary perspective impact collaborative work on projects between team members from different backgrounds? How do diverse contributions from various areas of study contribute to a broader

- understanding of complex questions?
- How can we rigorously evaluate the appropriateness and efficacy of transdisciplinary collaborations between practitioners in different fields of study?
- What are some relationships between music and mathematics? How do aspects of these subjects relate to one another, and to other subjects?

### **HON 301-003: Cancer Biology**

Dr. David Orren, Dr. Amrita Machwe | TR 2:00-3:15

This course is focused on the biology and treatment of human cancers. The course format emphasizes scientific literature describing key discoveries that have contributed significantly to current knowledge of the fundamental pathways relevant to cancer biology and how these pathways have been or can be exploited for cancer therapy. This course aims to introduce students to the concept that cancer is a series of diseases based on genetic changes occurring within cells, emphasizing the fundamental discoveries in cancer biology research that offer mechanistic insights into the disease process.

### **HON 301-006: Health in Appalachia**

Dr. Kevin Sarge | TR 12:30-1:45

Everyone is entitled to the right to health and to attain their highest physical and mental wellness. Therefore, health equity is essential for fair and just opportunities for everyone's right to health. This course will engage students to examine what is known about health and wellness in Appalachia, identify factors that influence health equity in this region, and explore creative solutions that could contribute to health and wellness equity in Appalachia. The following are among the many important questions we will explore and deliberate on:

- How is one's happiness (physical and mental well-being) measured?
- What health conditions are disproportionately associated with the Appalachian community?
- What factors contribute to the development of the identified health conditions?
- What is the status of health equity in Appalachia, and what factors and barriers may contribute to differences in Appalachian health equity?
- What are possible relations between economics/business and health inequity in the Appalachian community?
- What are the ethical issues underlying health inequity in the Appalachian community?
- How could health equity be achieved for the Appalachian community?

### **HON 301-008: Adam, Eve, and AI**

Dr. Abigail Firey | TR 3:30-4:45

This course examines the religious, ethical, cultural, and practical contexts to consider the proliferating use of Artificial Intelligence (AI). It offers opportunities to develop both greater familiarity with the technology and frameworks for determining our own use in an academic setting.

A first premise of the course is that many aspects of Western culture, including secular culture, have been profoundly shaped by nearly two thousand years of predominantly Christian thought and education. Therefore, each unit includes relevant biblical, patristic, medieval, or post-medieval religious texts to examine their implications for the larger questions raised by the advent of popular access to AI technology. Readings from other faith traditions (Judaism and Islam) and non-conforming religious perspectives are included sporadically.

A second premise is that popular culture, especially stories enshrined in fantasy and science fiction genres, has also shaped our understanding and the world-view of those developing the technology. We shall investigate those perspectives, as well. A third premise is that shared, transparent experimentation with the technology brings awareness of its strengths and

weaknesses and strategies for handling it well (and avoiding it). It is becoming an essential form of literacy. Each unit of the course is built around a theme fundamental to contemplating the ethical and intellectual issues inherent in the development of current, popular forms of generative AI—primarily Large Language Models and chatbots: the very nature of being human, the nature of language, the question of labor, the power to create dangerous technologies, structures and ideologies of wealth and poverty, and man-made and natural environments. Each participant will choose a theme to explore in greater depth than occurs in class meetings, to produce either a traditional research paper or an equivalent form of presentation in other media (equivalency will be very carefully negotiated before and during production of an alternate form).

## SERVICE LEARNING and EXPERIENTIAL LEARNING

### **HMN 303-001: Contemporary Issues Concerning the Humanities**

Dr. Chelsea Brislin | MW 11:00-12:15

This is a team-taught course in the applied Humanities. This year's section will be taught by architect Darren Taylor (College of Design) and archivist Ruth Bryan (UK Libraries). These faculty will be using the Raymond Betts House on East Maxwell Street as a case study to explore the methodologies and practical application of historic preservation, archives, design, public history, and more. HMN 303 is open to students from any major and is uniquely hands-on and high-impact. Students will spend time visiting related archives, walking the neighborhood, and exploring historic buildings to better understand how the humanities can help us navigate and understand our urban landscape here in Lexington. Honors students may count this course as either an Honors Upper-Level course or as Honors Experience, but not both. If you would prefer to count this course as an Honors upper-level seminar, please let your Honors advisor know.

### **HON 100-001: Service Learning for Singletary Scholars**

Dr. Laura Bryan, Mr. Tony Collela | W 3:00-3:50

This course is designed to introduce first-year Singletary Scholarship recipients to the University's scholarly life and organize and execute community service as a cohort, leveraging each scholar's leadership capabilities as directed through their academic interests and service. Through guest lectures, discussions, and out-of-the-classroom assignments, HON 100 helps first-year Singletary scholars gain an early understanding of opportunities at a research university, increase awareness and use of campus resources, reflect on community issues that they can address using the skills and talents specific to their cohort, and form beneficial relationships with students, faculty, and staff.

### **HON 390-001: Encountering Immigrant and Refugee Lives**

Dr. Julie Boutwell-Peterson | MW 3:00-4:15

When John F. Kennedy wrote *A Nation of Immigrants* in 1958—a book that outlines how U.S. immigrants contribute to the economic, innovative, and technological success of the United States—he could not have known how relevant his book would be 65 years into the future. After all, in today's political rhetoric, the fear of foreigners has reached a new fervor. But if it is true that the U.S. is a “nation of immigrants” and if most Americans today are descendants of immigrants, how do we make sense of the current tirade against immigrants?

Set up as a service-learning course (in which you will meet and spend time with immigrants and refugees living in Lexington), this class will give you a chance not only to think, talk, and write intelligently about the topic of immigration but also to gain new insight into the multicultural world that is the United States.

Through the course of the semester, we will consider these questions:

- How does the U.S. immigration system work?
- Who is allowed in and who is kept out?
- What issues do immigrants and refugees face once they arrive?
- How and why do governments try to control their borders?
- How do the current immigration laws affect individual lives?
- What might be the best way forward for U.S. immigration policy?

We will meet together in class, but we will also reserve some class time for volunteering off campus twice a month.

## **HON 394-002: Applying Real World Project Management in Service to a Nonprofit**

Dr. Kim Stoltzfus | TR 3:30-4:45

Students will participate in organized service-learning projects – funded, developed, and implemented by the students - that meet identified community assets and needs. To equip the students, course content includes lessons on project management, team leadership, -building and -dynamics, and problem-solving. This course will also cover key knowledge of the context – non-profit organizations – which are often considered the most complex organizations as they have to manage a double bottom line, fiscal performance as well as positive social impact. These organizations require exceptional leader intelligence and commitment in addition to a passion to serve those in need. In teams and with the non- profit point of contacts (and with the professor as a guide), the students will have the opportunity to develop and implement a small-scale (\$100 cost limit) capacity-building solution to better serve a nonprofit’s mission. Students will have an opportunity to integrate meaningful community service with reflection and in-class instruction to reinforce ideas of civic and social responsibility while at the same time strengthening our community. The content of this course can be used for any major and career with the aim of deepening student understanding of how their skills and knowledge can apply to service.



## HONORS COURSE SECTIONS IN THE DEPARTMENTS

### **BIO 199: Research Experience in Biology**

Participation in biological research under the direction of a faculty mentor in Biology or a related field. A research contract signed by the student and faculty mentor must be approved by the Director of Undergraduate Studies in Biology. Offered pass/fail only.

BIO 199-002. The Director of Undergraduate Studies in Biology must approve a research contract (web form found on the Biology Department website) signed by the student and faculty mentor. Offered pass/fail only. Controlled enrollment: Registration will be allowed after the contract is approved.

### **BIO 315-005: Introduction to Cell Biology**

Dr. Alexandra Long | TR 9:30-10:45, Lecture

Dr. Douglas Harrison | W 9:00-11:50, Laboratory

The structure and function of cells will be considered. Emphasis will be placed on the ultrastructure of cell organelles in plants and animals as a framework for understanding the compartmentalized nature of cell activity. Lecture, 3 hours; laboratory, 3 hours/week.

### **BIO 350-005: Animal Physiology**

Dr. Robin Cooper | MWF 12:00-12:50, Lecture

Dr. Melody Danley | M 9:00-11:50, Laboratory

An introduction to the basic principles of animal physiology. An elementary discussion of the major vertebrate organ systems, including nutrition, metabolism, respiration, circulation, excretion, muscle contraction, the peripheral and central nervous systems, and endocrine function, emphasizing homeostasis. Lecture, 3 hours; laboratory, 3 hours.

### **CHE 107-003: General Chemistry II**

MWF 1:00-1:50

A continuation of CHE 105. A study of chemistry principles and their application to elements and compounds. Exams are the same in Honors and non-Honors sections of CHE 107, but the Honors section allows students to engage in discussion and projects.

### **CHE 565-002: Environmental Chemistry**

Dr. Marcelo Guzman | MWF 11:00-11:50

A study of the sources, reactions, transport, effects, and fates of chemical species in the atmosphere, hydrosphere, lithosphere, and biosphere.

## **ECO 201-006 Principles of Economics I: Market Failures, Nonprofits, and Social Impact**

Dr. Gail Hoyt | TR 12:30-1:45

This course offers an engaging introduction to how markets function, examining the behavior of consumers and firms, and the impact of supply and demand on prices. You'll delve into pressing issues like environmental damage, poverty, income inequality, and monopoly power, while also exploring the role of government in addressing these market failures. Through group projects with local nonprofits, you'll apply economic theory to real-world challenges and see firsthand how economics can drive positive change. Our discussions will be enriched by diverse resources—news articles, podcasts, and guest speakers—that bring current economic issues to life. By the end of the course, you'll have the tools to analyze economic decisions, understand the broader impact of policies, and explore the powerful connection between economics, policy, and nonprofit work. Coursework includes three exams, homework, short writing assignments based on lectures and readings, daily activity credit for in-class work, and a group community partnership project.

## **HHS 453-001: Cultural Competencies in Healthcare**

Dr. Christy Brady | TR 9:30-10:45

This course introduces the student to concepts of culture, race, ethnicity, and competence. Emphasis will be placed on identifying individual characteristics and their influence on bias. Factors related to culturally and linguistically appropriate health care will be reviewed. This course is a Graduation Composition and Communication Requirement (GCCR) course in certain programs and hence is not likely to be eligible for automatic transfer credit to UK.

## **MA 322-008 Matrix Algebra**

MWF 10:00-10:50

Algebra of matrices, elementary theory of vector spaces and inner product spaces, and the solution of simultaneous linear equations using Gaussian elimination and triangular factorization. Orthogonal projections, pseudo-inverse, singular value decomposition, and least squares approximation. Determinants, eigenvalues, and eigenvectors, diagonalization.

## **ME/AER 220-004: Engineering Thermodynamics I**

Dr. Farzad Taghaddosi | MWF 9:00-9:50

This first course in engineering thermodynamics is intended to introduce students to the fundamental concepts of energy balance and efficiency, with an emphasis on both theoretical and practical aspects. The objective is to apply these principles to analyze various thermodynamic systems.

## **PGY 412G-002: Honors Principles of Human Physiology**

MW 1:00-2:50

This course aims to provide the basic physiological mechanisms of human body function and the physiological integration of the organ systems to maintain homeostasis. Students will learn what the different organ systems do and how they do it. With this knowledge, a student should be able to form a general understanding of how the body functions in terms of health and disease. The general purpose of the lectures is to reinforce and expand upon the material presented in the text, focusing on concepts and problem-solving skills. Lectures will be further developed with reading assignments and discussion.